Prevention and Control of Communicable Diseases

A Guide for School Administrators, Nurses, Teachers, Child Care Providers, and Parents or Guardians

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FOREWORD

HELP CONTROL COMMUNICABLE DISEASES

Vaccines are now available to control the majority of diseases that have caused illness and death in children in the past. Medical treatments help to control many others, but schools and child care centers must continue to play an important role in controlling the spread of communicable disease. By enforcing the state communicable disease regulations, excluding children who are ill, and promptly reporting all suspected cases of communicable disease, personnel working with children can help ensure the good health of the children in their care.

Be alert for signs of illness such as elevated temperature, skin rashes, inflamed eyes, flushed, pale or sweaty appearance. If a child shows these or other signs of illness, pain or physical distress, he/she should be evaluated by a health care provider. Children or staff with communicable diseases should not be allowed to attend or work in a school or child care setting until they are well. Recommendations for exclusion necessary to prevent exposure to others are contained in this document.

Please report all suspected cases of communicable disease promptly to your city, county or state health department. Prompt reporting is the first step to insuring appropriate control measures.

Additional information concerning individual communicable diseases is contained in the *Communicable Disease Investigation Reference Manual* located on the Department of Health and Senior Services website at: http://health.mo.gov/living/healthcondiseases/communicable/communicabledisease/cdmanual/index.php.

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INTRODUCTION

The number of families with young children in out-of-home childcare has been steadily increasing. A variety of infections have been documented in children attending childcare, sometimes with spread to caregivers and to others at home. Infants and preschool-aged children are very susceptible to contagious diseases because they 1) have not been exposed to many infections, 2) have little or no immunity to these infections, and 3) may not have received any or all of their vaccinations.

Close physical contact for extended periods of time, inadequate hygiene habits, and underdeveloped immune systems place children attending childcare and special needs settings at increased risk of infection. For instance, the spread of diarrheal disease may readily occur with children in diapers and others with special needs due to inadequate handwashing, environmental sanitation practices, and diaper changing.

This manual contains 54 disease fact sheets for providers about specific infectious disease problems. These fact sheets have been designed to provide specific disease prevention and control guidelines that are consistent with the national standards put forth by the American Public Health Association and the American Academy of Pediatrics. Some indicate when immediate action is necessary. **Please note that on the PROVIDER fact sheets, for any diseases labeled "REPORTABLE", the provider MUST consult with the LOCAL or STATE HEALTH DEPARTMENT.** After receiving approval from the local or state health department, the PARENT/GUARDIAN fact sheets would be posted or distributed to the parents/guardians.

In addition to the provider fact sheets, 47 of the fact sheets are available in a format specifically for parents/guardians of childcare and school-aged children. **PARENT/GUARDIAN** is written in the upper right hand corner.

This manual contains information for both staff and parents/guardians on numerous topics. See Table of Contents for location of specific information.

This document replaces all previous versions of the "Prevention and Control of Communicable Diseases, A Guide for School Administrators, Nurses, Teachers, and Child Care Providers".

DISCLAIMER - In clinical practice, certain circumstances and individual cases require professional judgment beyond the scope of this document. Practitioners and users of this manual should not limit their judgment on the management and control of communicable disease to this publication and are well advised to review the references that are listed, and remain informed of new developments and resulting changes in recommendations on communicable disease prevention and control.

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GENERAL EXCLUSION GUIDELINES FOR ILL CHILDREN/STAFF

Certain symptoms in children may suggest the presence of a communicable disease. Excluding an ill child may decrease the spread of the disease to others in the childcare and school settings. Recommended exclusion varies by the disease or infectious agent. Children with the symptoms listed below should be excluded from the childcare or school setting until symptoms improve; or a healthcare provider has determined that the child can return; or children can participate in routine activities without more staff supervision than can be provided.

NOTE: It is recommended that childcare/preschool providers and schools have policies that are clearly written for excluding sick children and staff. These policies should be placed in the student handbook or on the childcare or school website. Parents/guardians and staff should be given or directed to these resources at the beginning of each school year or when the child is enrolled or the staff member is hired. This will help prevent problems later when the child or staff member is ill.

Exclude children with any of the following:

Illness

Unable to participate in routine activities or needs more care than can be provided by the childcare/school staff.

Fever

A child's normal body temperature varies with age, general health, activity level, the time of day and how much clothing the child is wearing. Everyone's temperature tends to be lower early in the morning and higher between late afternoon and early evening. Body temperature also will be slightly higher with strenuous exercise. Most medical professionals define fever as a body core temperature elevation above 100.4°F (38°C) and a fever which remains below 102°F (39°C) is considered a low-grade fever. If a child is younger than three months of age and has a fever, it's important to always inform the caregiver immediately so they can call their healthcare provider right away.

When determining whether the exclusion of a child with fever is needed, a number of issues should be evaluated: recorded temperature; or is the fever accompanied by behavior changes, headache, stiff neck, difficulty breathing, rash, sore throat, and/or other signs or symptoms of illness; or if child is unable to participate in routine activities. Any child that has an elevated body temperature that is not excluded should be closely monitored for possible change(s) in their condition. A temperature should be measured before giving medications to reduce the fever.

Measurement method	**Normal temperature range for Children**
Rectal	36.6°C to 38°C (97.9°F to 100.4°F)
Ear	35.8°C to 38°C (96.4°F to 100.4°F)
Oral	35.5°C to 37.5°C (95.9°F to 99.5°F)
Axillary (armpit)	34.7°C to 37.3°C (94.5°F to 99.1°F)

"Pediatric fever as defined by different measurement methods", source: Pediatric Society of Canada, 2009 update*.
When measuring ear temperatures follow the manufacturer's instructions to ensure accurate results.

Signs/Symptoms of Possible Severe Illness

Until a healthcare provider has done an evaluation to rule out severe illness when the child is unusually tired, has uncontrolled coughing, unexplained irritability, persistent crying, difficulty breathing, wheezing, or other unusual signs for the child.

Diarrhea

Until the child has been free of diarrhea for at least 24 hours or until a medical exam indicates that it is not due to a communicable disease. Diarrhea is defined as an increased number of stools compared with a child's normal pattern, along with decreased stool form and/or stools that are watery, bloody, or contain mucus.

GENERAL EXCLUSION GUIDELINES FOR ILL CHILDREN/STAFF

Vomiting	Vomiting two or more times in the previous 24 hours, unless determined to be caused by a noncommunicable condition and the child is not in danger of dehydration.
Mouth Sores with Drooling	Until a medical exam indicates the child may return or until sores have healed.
Rash with Fever or Behavior Change	Until a medical exam indicates these symptoms are not those of a communicable disease that requires exclusion.
Eye Drainage	When purulent (pus) drainage and/or fever or eye pain is present or a medical exam indicates that a child may return.
Unusual Color of Skin, Eyes, Stool, or Urine	Until a medical exam indicates the child does not have hepatitis A. Symptoms of hepatitis A include yellow eyes or skin (jaundice), gray or white stools, or dark (tea or cola-colored) urine.

For specific guidelines for childcare settings, see pg 3-10.
For specific guidelines for school settings, see pg 11-17.

Specific guidelines can be found at: http://health.mo.gov/safety/childcare/index.php

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

SPECIFIC DISEASE EXCLUSION FOR CHILDCARE

See individual fact sheets for exclusion and other information on the diseases listed below.

Acute Bronchitis (Chest Cold)/Bronchiolitis — Until fever is gone and the child is well enough to participate in routine activities.

Campylobacteriosis — Until the child has been free of diarrhea for at least 24 hours. Children who have *Campylobacter* in their stools but who do not have symptoms do not need to be excluded.

No one with *Campylobacter* should use swimming beaches, pools, spas, water parks, or hot tubs until 2 weeks after diarrhea has stopped.

Exclude symptomatic staff with *Campylobacter* from working in food service or providing childcare. Other restrictions may apply; call your local health department for guidance.

Chickenpox — **Until all the blisters have dried into scabs; usually by day 5 after the rash began.**

It takes 14 to 21 days after receiving vaccine to develop immunity in children. Vaccine failure occasionally occurs. The incubation period is 10 to 21 days. Therefore, exclude children who:

- appear to have chickenpox regardless of whether or not they have received varicella vaccine, or
- develop blisters within 10 to 21 days after vaccination.

Chickenpox can occur even if someone has had the varicella vaccine. These are referred to as "breakthrough infections" and are usually less severe and have an atypical presentation. The rash may be atypical in appearance with fewer vesicles and predominance of maculopapular lesions. Persons with breakthrough varicella should be isolated as long as lesions persist.

Although extremely rare, the vaccine virus has been transmitted to susceptible contacts by vaccine recipients who develop a rash following vaccination. Therefore, exclude vaccine recipients who develop a rash after receiving varicella vaccine, using the above criteria.

Conjunctivitis (Pinkeye) — **Purulent Conjunctivitis** (redness of eyes and/or eyelids with thick white or yellow eye discharge and eye pain): Exclude until appropriate treatment has been initiated or the discharge from the eyes has stopped unless doctor has diagnosed a non-infectious conjunctivitis.

Infected children without systemic illness (i.e. Adenoviral, Enteroviral, Coxsackie) should be allowed to remain in childcare once any indicated therapy is implemented, unless their behavior is such that close contact with other children cannot be avoided.

Nonpurulent conjunctivitis (redness of eyes with a clear, watery eye discharge but without fever, eye pain, or eyelid redness): None.

Croup	Until fever is gone and the child is well enough to participate in routine activities.
Cryptosporidiosis	Until the child has been free of diarrhea for at least 24 hours. No one with *Cryptosporidium* should use swimming beaches, pools, water parks, spas, or hot tubs for 2 weeks after diarrhea has stopped for 24 hours. Exclude symptomatic staff with *Cryptosporidium* from working in food service or providing childcare until 24 hours after diarrhea has stopped. Other restrictions may apply; call your local health department for guidance.
Cytomegalovirus (CMV) Infection	None. Educational programs on CMV, its potential risks, and appropriate hygienic measures to minimize occupationally acquired infection should be provided for female workers in childcare centers.
Diarrhea (Infectious)	Until the child has been free of diarrhea for at least 24 hours. The length of time may vary depending on the organism. For some infections, the person must also be treated with antibiotics or have negative stool tests before returning to childcare. (See fact sheet for specific organism when known.) No one with diarrhea should use swimming beaches, pools, water parks, spas, or hot tubs for at least 2 weeks after diarrhea has stopped. (See specific disease information for additional times.) Staff with diarrhea may be restricted from working in food service or providing childcare. Other restrictions may apply; call your local health department for guidance.
Enteroviral Infection	Until the child has been free of diarrhea and/or vomiting for at least 24 hours. None, for mild, cold-like symptoms, as long as the child is well enough to participate in routine activities.
Fifth Disease (Parvovirus)	None, if other rash-causing illnesses are ruled out by a healthcare provider. Persons with fifth disease are no longer infectious once the rash begins.
Giardiasis	When a child is infected with *Giardia* who has symptoms, the child should be excluded until free of diarrhea for at least 24 hours. When an outbreak is suspected all symptomatic children should be treated. Children who are treated in an outbreak should be excluded until after treatment has been started and they have been free of diarrhea for at least 24 hours. Treatment of asymptomatic carriers is not effective for outbreak control. Exclusion of carriers from childcare is not recommended. No one with *Giardia* should use swimming beaches, pools, spas, water parks, or hot tubs for 2 weeks after diarrhea has stopped. Exclude symptomatic staff with *Giardia* from working in food service. Other restrictions may apply; call your local health department for guidance.

Haemophilus influenzae type B (Hib) Disease	Until the child has been treated and is well enough to participate in routine activities.
Hand, Foot, and Mouth Disease	Until fever is gone and child is well enough to participate in routine activities (sores or rash may still be present).
Head Lice	Until first treatment is completed and no live lice are seen. Nits are NOT considered live lice. Children do not need to be sent home immediately if lice are detected; however they should not return until effective treatment is given.
Hepatitis A	Consult with your local or state health department. Each situation must be looked at individually to decide if the person with hepatitis A can spread the virus to others.
Hepatitis B	Children with hepatitis B infection should not be excluded from school, childcare, or other group care settings solely based on their hepatitis B infection. Any child, regardless of known hepatitis B status, who has a condition such as oozing sores that cannot be covered, bleeding problems, or unusually aggressive behavior (e.g., biting) that cannot be controlled may merit assessment by the child's health professional and the child care program director or school principal to see whether the child may attend while the condition is present.
Hepatitis C	Children with hepatitis C infection should not be excluded from school, childcare, or other group care settings solely based on their hepatitis C infection. Any child, regardless of known hepatitis C status, who has a condition such as oozing sores that cannot be covered, bleeding problems, or unusually aggressive behavior (e.g., biting) that cannot be controlled may merit assessment by the child's health professional and the child care program director or school principal to see whether the child may attend while the condition is present.
Herpes, Oral	Primary infection: Until those children who do not have control of their oral secretions no longer have active sores inside the mouth. Recurrent infections (fever blisters and cold sores): None.
HIV/AIDS	Children with HIV infection should not be excluded from school, childcare, or other group care settings solely based on their HIV infection. Any child, regardless of known HIV status, who has a condition such as oozing sores that cannot be covered, bleeding problems, or unusually aggressive behavior (e.g., biting) that cannot be controlled may merit assessment by the child's health professional and the child care program director or school principal to see whether the child may attend while the condition is present.
Impetigo	If impetigo is confirmed by a healthcare provider, until 24 hours after treatment. Lesions on exposed skin should be covered with watertight dressing.

Influenza	Until fever is gone and the child is well enough to participate in routine activities. Decisions about extending the exclusion period could be made at the community level, in conjunction with local and state health officials. More stringent guidelines and longer periods of exclusion – for example, until complete resolution of all symptoms – may be considered for people returning to a setting where high numbers of high-risk people may be exposed, such as a camp for children with asthma or a child care facility for children younger than 5 years old.
Measles	Until 4 days after the rash appears. A child with measles should not attend <u>any activities</u> during this time period. Exclude unvaccinated children and staff, who are not vaccinated within 72 hours of exposure, for at least 2 weeks after the onset of rash in the last person who developed measles.
Meningococcal Disease	Consult with your local or state health department. Each situation must be looked at individually to determine appropriate control measures to implement. Most children may return after the child has been on appropriate antibiotics for at least 24 hours and is well enough to participate in routine activities.
Methicillin-Resistant *Staphylococcus aureus* (MRSA)	If draining sores are present and cannot be completely covered and contained with a clean, dry bandage or if a person cannot maintain good personal hygiene. Children who are only colonized do not need to be excluded. <u>Activities</u>: Children with draining sores should not participate in any activities where skin-to-skin contact is likely to occur until their sores are healed. This means no contact sports.
Molluscum Contagiosum	None. Encourage parents/guardians to cover bumps with clothing when there is a possibility that others will come in contact with the skin. If not covered by clothing, cover with a bandage. <u>Activities</u>: Exclude any child with bumps that cannot be covered with a water tight bandage from participating in swimming or other contact sports.
Mononucleosis	None. As long as the child is well enough to participate in routine activities. Because students/adults can have the virus without any symptoms, and can be contagious for such a long time, exclusion will not prevent spread.
Mosquito-Borne	None.

Mumps	Until 5 days after swelling begins. Exclude unvaccinated children and staff if two or more cases of mumps occur. Exclusion will last through at least 26 days after the onset of parotid gland swelling in the last person who developed mumps. Once vaccinated, students immediately can be readmitted.
Norovirus	Children and staff who are experiencing vomiting and/or diarrhea should stay home from childcare until they have been free of diarrhea and vomiting for at least 24 hours. No one with vomiting and/or diarrhea that is consistent with norovirus should use pools, swimming beaches, water parks, spas, or hot tubs for at least 2 weeks after diarrhea and/or vomiting symptoms have stopped. Staff involved in food preparation should be restricted from preparing food for 48 hours after symptoms stop.
Parapertussis	None, if the child is well enough to participate in routine activities.
Pertussis (Whooping Cough)	Children and symptomatic staff with pertussis should be excluded until 5 days after appropriate antibiotic treatment begins. During this time, the person with pertussis should NOT participate in any childcare or community activities. If not treated with 5 days of antibiotics, exclusion should be for 21 days after cough onset. If there is a high index of suspicion that the person has pertussis, exclude until the individual has been evaluated by a medical provider and deemed no longer infectious by the local health department, 5 days of antibiotics are completed or until the laboratory test comes back negative.
Pinworms	None.
Pneumococcal Infection	None, if the child is well enough to participate in routine activities.
Pneumonia	Until fever is gone and the child is well enough to participate in routine activities.
Respiratory Infection (Viral)	Until fever is gone and the child is well enough to participate in routine activities.
Respiratory Syncytial Virus (RSV) Infection	Until fever is gone and the child is well enough to participate in routine activities.
Ringworm	Children should be excluded until treatment has been started or if the lesion cannot be covered. Or if on the scalp, until 24 hours after treatment has been started. Any child with ringworm should not participate in gym, swimming, and other close contact activities that are likely to expose others until 72 hours after treatment has begun or the lesions can be completely covered.

Roseola	Until the fever is gone and other rash illnesses, especially measles, have been ruled out.
Rotaviral Infection	Until the child has been free of diarrhea for at least 24 hours.
Rubella (German Measles)	Until 7 days after the rash appears. Exclude unvaccinated children and staff in which a case of rubella occurs for at least 3 weeks after the onset of rash in the last reported person who developed rubella.
Salmonellosis	Until the child has been free of diarrhea for at least 24 hours. Children who have *Salmonella* in their stools but who do not have symptoms do not need to be excluded. Exclude symptomatic staff with *Salmonella* from working in food service or providing childcare. Other restrictions may apply; call your local health department for guidance. *If a case of *Salmonella typhi* is identified in a childcare center or school, please consult with your local or state health department. Each situation must be looked at individually to determine appropriate control measures to implement.
Scabies	Until 24 hours after treatment begins.
Shigellosis	Children and child care staff with diarrhea should be excluded from childcare until they are well. The child care should be closed to new admissions during outbreaks, and no transfer of exposed children to other centers should be allowed. Shigellosis is transmitted easily and can be severe, so all symptomatic persons (employees and children) should be excluded from childcare setting in which *Shigella* infection has been identified, until diarrhea has ceased for 24 hours, and one (1) stool culture is free of *Shigella* spp. Stool specimens should not be obtained earlier than 48 hours after discontinuation of antibiotics. Antimicrobial therapy is effective in shortening the duration of diarrhea and eradicating organisms from feces. No one with *Shigella* should use swimming beaches, pools, water parks, spas, or hot tubs until 1 week after diarrhea has stopped. Food service employees infected with *Shigella* bacteria should be excluded from working in food service. An employee may return to work once they are free of the *Shigella* infection based on test results showing 2 consecutive negative stool cultures that are taken at least 24 hours after diarrhea ceases, not earlier than 48 hours after discontinuation of antibiotics, and at least 24 hours apart; or the food employee may be reinstated once they have been asymptomatic for more than 7 calendar days. In the absence of laboratory verification, the excluded food handler may return to work after symptoms of vomiting and/or diarrhea have resolved, and more than 7 calendar days have passed since the food handler became asymptomatic.

Shingles (Zoster)	None, if blisters can be completely covered by clothing or a bandage. If blisters **cannot** be covered, exclude until the blisters have crusted. Persons with severe, disseminated shingles should be excluded regardless of whether the sores can be covered.
Staph Skin Infection	If draining sores are present and cannot be completely covered and contained with a clean, dry bandage or if the person cannot maintain good personal hygiene. Children who are only colonized do not need to be excluded. Activities: Children with draining sores should not participate in activities where skin-to-skin contact is likely to occur until their sores are healed. This means no contact sports.
STEC (Shiga toxin-producing *Escherichia coli*) Infection	Until diarrhea has ceased for 24 hours, and two follow-up test at the state public health laboratory obtained at least 24 hours apart have tested negative. Specimens should not be obtained earlier than 48 hours after discontinuation of antibiotics. Further requirements may be necessary during outbreaks. The child care should be closed to new admissions during the outbreaks, and no transfer of exposed children to other centers should be allowed. No one with STEC should use swimming beaches, pools, water parks, spas, or hot tubs until 2 weeks after diarrhea has stopped. Food service employees with STEC infection should be excluded from working in food service. An employee may return to work once they are free of the STEC infection based on test results showing 2 consecutive negative stool specimens that are taken at least 24 hours after diarrhea ceases, not earlier than 48 hours after discontinuation of antibiotics, and at least 24 hours apart; or the food employee may be reinstated once they have been asymptomatic for more than 7 calendar days.
Streptococcal Infection (Strep Throat/Scarlet Fever)	Until 24 hours after antibiotic treatment begins and until the child is without fever. Children without symptoms, regardless of a positive throat culture, do not need to be excluded from childcare. Persons who have strep bacteria in their throats and do not have any symptoms (carriers) appear to be at little risk of spreading infection to those who live, attend childcare, or work around them.
Tick-Borne	None
Tuberculosis (TB)	A person with a newly positive tuberculin skin test (TST) or interferon gamma release assay (IGRA) should see a healthcare provider as soon as possible after the positive test is detected for further evaluation and possible treatment. Consult with your local or state health department immediately. Each situation must be evaluated individually to determine whether the person is contagious and poses a risk to others. Latent tuberculosis infection and tuberculosis disease are reportable conditions in Missouri.
Viral Meningitis	Until the fever is gone or diarrhea has stopped and the child is well enough to participate in routine activities.

Warts	None.
Yeast Infection (Candidiasis)	None.

Other communicable diseases

Consult your local or state health department or the child's healthcare provider regarding exclusion guidelines for other infections not described in this manual. Special exclusion guidelines may be recommended in the event of an outbreak of an infectious disease in a childcare setting. **Consult your local or state health department when there is more than one case of a communicable disease.**

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

SPECIFIC DISEASE EXCLUSION FOR SCHOOLS

See individual fact sheets for more information on the diseases listed below.

Acute Bronchitis (Chest Cold)/Bronchiolitis

Until fever is gone and the child is well enough to participate in routine activities.

Campylobacteriosis

None, unless the child is not feeling well and/or has diarrhea. Exclusion may be necessary during outbreaks.

No one with *Campylobacter* should use swimming beaches, pools, water parks, spas, or hot tubs until 2 weeks after diarrhea has stopped.

Exclude symptomatic staff with *Campylobacter* from working in food service. Other restrictions may apply; call your local health department for guidance.

Chickenpox

Until all the blisters have dried into scabs; usually by day 6 after the rash began.

It takes 10 to14 days after receiving vaccine to develop immunity. Vaccine failures occasionally occur. The incubation period is 10 to 21 days. Therefore, exclude children who:

- appear to have chickenpox regardless of whether or not they have received varicella vaccine, or
- develop blisters within 10 to 21 days after vaccination.

Chickenpox can occur even if someone has had the varicella vaccine. These are referred to as "breakthrough infections" and are usually less severe and have an atypical presentation. The bumps rather than blisters may be present; therefore, scabs may not present. These cases should be excluded until all bumps/blisters/scabs (sores) have faded and no new sores have occurred within a 24-hour period, whichever is later. Sores do not need to be completely resolved.

Although extremely rare, the vaccine virus has been transmitted to susceptible contacts by vaccine recipients who develop a rash following vaccination. Therefore, exclude vaccine recipients who develop a rash after receiving varicella vaccine, using the above criteria.

Conjunctivitis (Pinkeye)

Purulent Conjunctivitis (redness of eyes and/or eyelids with thick white or yellow eye discharge and eye pain): Exclude until appropriate treatment has been initiated or the discharge from the eyes has stopped unless doctor has diagnosed a non-infectious conjunctivitis.

Infected children without systemic illness (i.e. Adenoviral, Enteroviral, Coxsackie) should be allowed to remain in school once any indicated therapy is implemented, unless their behavior is such that close contact with other students cannot be avoided.

Nonpurulent conjunctivitis (redness of eyes with a clear, watery eye discharge but without fever, eye pain, or eyelid redness): None.

Cryptosporidiosis	None, unless the child is not feeling well and/or has diarrhea. Exclusion may be necessary during outbreaks. No one with *Cryptosporidium* should use swimming beaches, pools, water parks, spas, or hot tubs for 2 weeks after diarrhea has stopped. Exclude symptomatic staff with *Cryptosporidium* from working in food service or providing childcare until they have been free of diarrhea for at least 24 hours. Other restrictions may apply; call your local health department for guidance.
Cytomegalovirus (CMV) Infection	None.
Diarrhea (Infectious)	Children that have diarrhea that could be infectious should be excluded until the child has been free of diarrhea for at least 24 hours. Other exclusions or preventive measures may be necessary dependent on the organism. Restrict students from sharing of any communal food items in the classroom. In the classroom, children should not serve themselves food items that are not individually wrapped. The teacher should hand out these items after washing his/her hands. No one with infectious diarrhea (of unknown cause) should use swimming beaches, pools, water parks, spas, or hot tubs for at least 2 weeks after diarrhea has stopped. Exclude symptomatic staff with diarrhea from working in food service. Dependent on the organism, other restrictions may apply; call your local health department for guidance.
Enteroviral Infection	None, unless the child is not feeling well and/or has diarrhea.
Fifth Disease (Parvovirus)	None, if other rash-causing illnesses are ruled out by a healthcare provider. Persons with fifth disease are no longer infectious once the rash begins.
Giardiasis	None, unless the child is not feeling well and/or has diarrhea. Exclusion may be necessary during outbreaks. No one with *Giardia* should use swimming beaches, pools, spas, water parks, or hot tubs for 2 weeks after diarrhea has stopped. Exclude symptomatic staff with *Giardia* from working in food service. Other restrictions may apply; call your local health department for guidance.
Hand, Foot, and Mouth Disease	Until fever is gone and child is well enough to participate in routine activities (sores or rash may still be present).

SPECIFIC DISEASE EXCLUSION GUIDELINES FOR SCHOOL

Head Lice	Until first treatment is completed and no live lice are seen. Nits are NOT considered live lice. Children do not need to be sent home immediately if lice are detected; however they should not return until effective treatment is given.
Hepatitis A	Consult with your local or state health department. Each situation must be looked at individually to decide if the person with hepatitis A can spread the virus to others.
Hepatitis B	Children with hepatitis B infection should not be excluded from school, childcare, or other group care settings solely based on their hepatitis B infection. Any child, regardless of known hepatitis B status, who has a condition such as oozing sores that cannot be covered, bleeding problems, or unusually aggressive behavior (e.g., biting) that cannot be controlled may merit assessment by the child's health professional and the child care program director or school principal to see whether the child may attend while the condition is present.
Hepatitis C	Children with hepatitis C infection should not be excluded from school, childcare, or other group care settings solely based on their hepatitis C infection. Any child, regardless of known hepatitis C status, who has a condition such as oozing sores that cannot be covered, bleeding problems, or unusually aggressive behavior (e.g., biting) that cannot be controlled may merit assessment by the child's health professional and the child care program director or school principal to see whether the child may attend while the condition is present.
Herpes Gladiatorum	Contact Sports: Exclude from practice and competition until all sores are dry and scabbed. Treatment with oral medication may shorten exclusion time. Follow the athlete's healthcare provider's recommendations and specific sports league rules for when the athlete can return to practice and competition.
Herpes, Oral	None.
HIV/AIDS	Children with HIV infection should not be excluded from school, childcare, or other group care settings solely based on their HIV infection. Any child, regardless of known HIV status, who has a condition such as oozing sores that cannot be covered, bleeding problems, or unusually aggressive behavior (e.g., biting) that cannot be controlled may merit assessment by the child's health professional and the child care program director or school principal to see whether the child may attend while the condition is present.
Impetigo	If impetigo is confirmed by a healthcare provider, exclude until 24 hours after treatment. Lesions on exposed skin should be covered with watertight dressing.

Influenza	Until fever is gone and the child is well enough to participate in routine activities. Decisions about extending the exclusion period could be made at the community level, in conjunction with local and state health officials. More stringent guidelines and longer periods of exclusion – for example, until complete resolution of all symptoms – may be considered for people returning to a setting where high numbers of high-risk people may be exposed, such as a camp for children with asthma or a child care facility for children younger than 5 years old.
Measles	Until 4 days after the rash appears. A child with measles should not attend <u>any activities</u> during this time period. Exclude unvaccinated children and staff, who are not vaccinated within 72 hours of exposure, for at least 2 weeks after the onset of rash in the last person who developed measles.
Meningococcal Disease	Consult with your local or state health department. Each situation must be looked at individually to determine appropriate control measures to implement. Most children may return after the child has been on appropriate antibiotics for at least 24 hours and is well enough to participate in routine activities.
Methicillin-Resistant *Staphylococcus aureus* (MRSA)	If draining sores are present and cannot be completely covered and contained with a clean, dry bandage or if a person cannot maintain good personal hygiene. Children who are only colonized do not need to be excluded. <u>Activities</u>: Children with draining sores should not participate in any activities where skin-to-skin contact is likely to occur until their sores are healed. This means no contact sports.
Molluscum Contagiosum	None. Encourage parents/guardians to cover bumps with clothing when there is a possibility that others will come in contact with the skin. If not covered by clothing, cover with a bandage. <u>Activities</u>: Exclude any child with bumps that cannot be covered with a water tight bandage from participating in swimming or other contact sports.
Mononucleosis	None, as long as the child is well enough to participate in routine activities. Because students/adults can have the virus without any symptoms, and can be contagious for a long time, exclusion will not prevent spread. <u>Sports</u>: Contact sports should be avoided until the student has recovered fully and the spleen is no longer palpable.
Mosquito-Borne	None.

SPECIFIC DISEASE EXCLUSION GUIDELINES FOR SCHOOL

Mumps	Until 5 days after swelling begins. Exclude unvaccinated children and staff if two or more cases of mumps occur. Exclusion will last through at least 26 days after the onset of parotid gland swelling in the last person with mumps. Once vaccinated, students can be readmitted immediately.
Norovirus	Children and staff who are experiencing vomiting and/or diarrhea should be excluded until they have been free of diarrhea and vomiting for at least 24 hours. Staff involved in food preparation should be restricted from preparing food for 48 hours after symptoms stop. The staff may perform other duties not associated with food preparation 24 hours after symptoms have stopped. No one with vomiting and/or diarrhea that is consistent with norovirus should use pools, swimming beaches, water parks, spas, or hot tubs for at least 2 weeks after diarrhea and/or vomiting symptoms have stopped.
Parapertussis	None, if the child is well enough to participate in routine activities
Pertussis (Whooping Cough)	Exclude children and symptomatic staff until 5 days after appropriate antibiotic treatment begins. During this time, the person with pertussis should NOT participate in any school or community activities. If not treated with 5 days of antibiotics, exclusion should be for 21 days after cough onset. If there is a high index of suspicion that the person has pertussis, exclude until the individual has been evaluated by a medical provider and deemed no longer infectious by the local health department, 5 days of antibiotics are completed or until the laboratory test comes back negative.
Pinworms	None.
Pneumococcal Infection	None, if the child is well enough to participate in routine activities.
Pneumonia	Until fever is gone and the child is well enough to participate in routine activities.
Respiratory Infection (Viral)	Until fever is gone and the child is well enough to participate in routine activities. None, for respiratory infections without fever, as long as the child is well enough to participate in routine activities.
Ringworm	Until treatment has been started or if the lesion cannot be covered; or if on the scalp, until 24 hours after treatment has been started. Any child with ringworm should not participate in gym, swimming, and other close contact activities that are likely to expose others until 72 hours after treatment has begun or the lesion can be completely covered. Sports: Follow athlete's healthcare provider's recommendations and the specific sports league rules for when the athlete can return to practice and competition.

Rotaviral Infection	None, unless the child is not feeling well and/or has diarrhea. Exclusion may be necessary during outbreaks.
Rubella (German Measles)	Until 7 days after the rash appears. Exclude unvaccinated children and staff for at least 3 weeks after the onset of rash in the last reported person who developed rubella.
Salmonellosis	None, unless the child is not feeling well and/or has diarrhea. Exclusion may be necessary during outbreaks. Exclude symptomatic staff with *Salmonella* from working in food service. Other restrictions may apply; call your local health department for guidance. *If a case of *Salmonella typhi* is identified in a childcare center or school, please consult with your local or state health department. Each situation must be looked at individually to determine appropriate control measures to implement.
Scabies	Until 24 hours after treatment begins.
Shigellosis	None, unless the child is not feeling well and/or has diarrhea. Exclusion may be necessary during outbreaks. No one with *Shigella* should use swimming beaches, pools, recreational water parks, spas, or hot tubs until 2 weeks after diarrhea has stopped. Food service employees infected with *Shigella* bacteria should be excluded from working in food service. An employee may return to work once they are free of the *Shigella* infection based on test results showing 2 consecutive negative stool cultures that are taken at least 24 hours after diarrhea ceases, not earlier than 48 hours after discontinuation of antibiotics, and at least 24 hours apart; or the food employee may be reinstated once they have been asymptomatic for <u>more than 7 calendar days.</u> Other restrictions may apply; call your local health department for guidance.
Shingles (Zoster)	None, if blisters can be completely covered by clothing or a bandage. If blisters **cannot** be covered, exclude until the blisters have crusted. Persons with severe, disseminated shingles should be excluded regardless of whether the sores can be covered.
Staph Skin Infection	If draining sores are present and cannot be completely covered and contained with a clean, dry bandage or if the person cannot maintain good personal hygiene. Children who are only colonized do not need to be excluded. <u>Activities</u>**:** Children with draining sores should not participate in activities where skin-to-skin contact is likely to occur until their sores are healed. This means no contact sports.

STEC (Shiga toxin-producing *Escherichia coli)* Infection	None, unless the child is not feeling well and/or has diarrhea. Exclusion may be necessary during outbreaks. No one with STEC should use swimming beaches, pools, water parks, spas, or hot tubs until 2 weeks after diarrhea has stopped. Food service employees with STEC infection should be excluded from working in food service. An employee may return to work once they are free of the STEC infection based on test results showing 2 consecutive negative stool specimens that are taken at least 24 hours after diarrhea ceases, not earlier than 48 hours after discontinuation of antibiotics, and at least 24 hours apart; or the food employee may be reinstated once they have been asymptomatic for more than 7 calendar days.
Streptococcal Infection (Strep Throat/Scarlet Fever)	Until 24 hours after antibiotic treatment begins and until the child is without fever. Children without symptoms, regardless of a positive throat culture, do not need to be excluded from school. Persons who have strep bacteria in their throats and do not have any symptoms (carriers) appear to be at little risk of spreading infection to those who live, attend school, or work around them.
Tick-Borne	None
Tuberculosis	A person with a newly positive tuberculin skin test (TST) or interferon gamma release assay (IGRA) should see a healthcare provider as soon as possible after the positive test is detected for further evaluation and possible treatment. Consult with your local or state health department immediately. Each situation must be evaluated individually to determine whether the person is contagious and poses a risk to others. Latent tuberculosis infection and tuberculosis disease are reportable conditions in Missouri.
Viral Meningitis	None, if the child is well enough to participate in routine activities.
Warts	None.
Yeast Infection (Candidiasis)	None.

Other communicable diseases

Consult your local or state health department or the child's healthcare provider regarding exclusion guidelines for other infections not described in this manual. Special exclusion guidelines may be recommended in the event of an outbreak of an infectious disease in a school setting.

Consult your local or state health department when there is more than one case of a reportable disease or if there is increased absenteeism.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

COMMUNICABLE DISEASE CONCERNS FOR PREGNANT WOMEN

Working in a childcare or school setting may involve frequent exposure to children infected with communicable diseases. Certain communicable diseases can have serious consequences for pregnant women and their fetuses. It is helpful if women know their medical history (which of the diseases listed below they have had and what vaccines they have received) when they are hired to work in a childcare or school setting. The childcare or school employers should inform employees of the possible risks to pregnant women and encourage workers who may become pregnant to discuss their occupational risks with a healthcare provider. These women should also be trained on measures to prevent infection with diseases that could harm their fetuses.

The following communicable diseases have implications for pregnant women:

- Cytomegalovirus (CMV)
- Fifth disease (Parvovirus B19)
- Hand, Foot, and Mouth (Enteroviral Infections)
- Hepatitis B
- Human Immunodeficiency Virus (HIV)
- Rubella (German Measles)
- Varicella-Zoster (Chickenpox and Shingles)

Pregnant women who are exposed to these diseases should notify their healthcare providers.

All persons who work in childcare or school settings should know if they have had chickenpox or rubella disease or these vaccines. If they are unsure, they should have blood tests to see if they are immune. If they are not immune (never had disease or vaccine), they should strongly consider being vaccinated for chickenpox and rubella before considering or attempting to become pregnant.

Fact sheets for each of the above diseases are included in this section.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

CYTOMEGALOVIRUS (CMV) AND PREGNANCY

What is CMV?

Cytomegalovirus (CMV) is a virus that infects 50% to 85% of adults in the United States by 40 years of age. Once a person has been infected with CMV, the virus remains in the body for life, typically in an inactive (latent) form. Disease may occur again in persons with weakened immune systems.

What illness does it cause?

Most healthy persons who acquire CMV have no symptoms. Occasionally people will develop mononucleosis-like symptoms such as fever, sore throat, fatigue, and swollen glands.

Is this illness serious?

For most healthy adults, CMV is not a problem. About 1% to 4% of uninfected women develop first-time CMV infection during their pregnancy. Healthy pregnant women are not at special risk for disease from CMV infection. When infected with CMV, most women have no symptoms and very few have a disease resembling mononucleosis. However, about one-third of women who become infected with CMV for the first time during pregnancy pass the virus to their unborn babies.

Each year in the United States, about 1 in 750 children are born with or develop disabilities as a result of congenital (meaning from birth) CMV infection. Most babies with congenital CMV never have health problems. However, some may eventually develop hearing and vision loss; problems with bleeding, growth, liver, spleen, or lungs; and mental disability. Sometimes health problems do not occur until months or years after birth. Of those with symptoms at birth, 80% to 90% will have problems within the first few years of life. Of those infants with no symptoms at birth, 5% to 10% will later develop varying degrees of hearing and mental or coordination problems.

CMV infection can be serious in people with weakened immune systems, such as persons infected with Human Immunodeficiency Virus (HIV), organ/bone marrow transplant recipients, chemotherapy/radiation patients, and people on steroids. Such persons are at risk for infection of the lungs (pneumonia), part of the eye (retinitis), the liver (hepatitis), the brain and covering of the spinal cord (meningoencephalitis), and the intestines (colitis). Death can occur.

I've recently been exposed to someone with CMV. How will this exposure affect my pregnancy?

As previously stated, since 50% to 85% of women have already been infected and are immune, being exposed will have no effect on their pregnancy. When a woman who has never had CMV becomes infected during pregnancy, there is potential risk that the infant may have CMV-related problems. The risk increases if infection occurs in the first half of pregnancy.

CYTOMEGALOVIRUS (CMV) INFECTION AND PREGNANCY

I have had a blood test for CMV. What do the results of the blood test show?

Blood tests for CMV may show that you:

- Have already had the disease and do not need to be concerned. It is uncommon for the virus to become active again in someone who has had a previous infection and for the virus to cause infection in the unborn child.
- Have not had the disease. You may want to consider reducing your contact with children, especially those under 2 1/2 years of age.
- Are currently experiencing an infection. You should discuss this with your healthcare provider.

If I develop CMV, what do I need to do about my pregnancy?

If you were exposed to CMV, you should consult your healthcare provider for information about diagnosis, possible lab tests, and follow-up.

Is there any way I can keep from being infected with CMV?

There is no preventive vaccine. Most people with CMV have no symptoms, but they can spread the virus in their urine, saliva, blood, tears, semen, and breast milk. So, throughout the pregnancy, **practice good personal hygiene** to reduce the risk of exposure to CMV.

- Wash your hands with soap and water after contact with diapers or saliva.
- DO NOT kiss children on the mouth or cheek. Instead, kiss them on the head or give them a hug.
- DO NOT share food, drinks, utensils (spoons or forks), or cups.
- Clean and sanitize items contaminated with saliva. Clean and disinfect items contaminated with urine.
- Female childcare or school workers who expect to become pregnant should consider being tested for antibodies to CMV. If antibody testing shows that the woman has not had CMV, contact with children less than age 2 1/2 (where the majority of virus circulates) should be reduced.

Information on the Web:

http://www.cdc.gov/cmv/index.html

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

FIFTH DISEASE (PARVOVIRUS B19) AND PREGNANCY

What is parvovirus B19?

Parvovirus B19 is a virus that commonly infects humans. About 50% of all adults have been infected sometime during childhood or adolescence. Parvovirus B19 infects only humans. There are animal parvoviruses, but they do not infect humans. Therefore, a person cannot catch parvovirus B19 from a dog or cat.

What illnesses do parvovirus B19 infection cause?

The most common illness caused by parvovirus B19 infection is "fifth disease," a mild rash illness that occurs most often in children. The ill child usually has an intense redness of the cheeks (a"slapped-cheek" appearance) and a lacy red rash on the trunk and limbs. Occasionally, the rash may itch. The child is usually not very ill. The rash resolves in 7 to 10 days. However, if the person is exposed to sunlight or heat, the rash may come back. Recovery from parvovirus infection produces lasting immunity and protection against future infection.

An adult who has not previously been infected with parvovirus B19 can be infected and have no symptoms or can become ill with a rash and joint pain and/or joint swelling. The joint symptoms usually go away in a week or two, but may last several months.

Are these illnesses serious?

Fifth disease is usually a mild illness. It goes away without medical treatment among children and adults who are otherwise healthy. Joint pain and swelling in adults usually goes away without long-term disability. During outbreaks of fifth disease, about 20% of adults and children are infected without getting any symptoms at all. However, the disease can be severe in children with sickle cell anemia, other blood disorders, or weakened immune systems and in pregnant women.

I've recently been exposed to someone with fifth disease. How will this exposure affect my pregnancy?

Usually, there are no serious complications for a pregnant woman or her baby following exposure to a person with fifth disease. About 50% of women are already immune to parvovirus B19, and these women and their babies are protected from infection and illness. Even if a woman is susceptible and gets infected with parvovirus B19, she usually experiences only a mild illness. Likewise, her unborn baby usually does not have any problems because of the parvovirus B19 infection.

Sometimes, however, parvovirus B19 infection will cause the unborn baby to have severe anemia and the woman may have a miscarriage. This occurs in less than 5% of all pregnant women who are infected with parvovirus B19 and occurs more commonly during the first half of pregnancy. There is no evidence that parvovirus B19 infection causes birth defects or mental retardation.

What should I do about this exposure?

If you have been in contact with someone who has fifth disease or you have an illness that might be caused by parvovirus B19, you may wish to discuss your situation with your healthcare provider. Your healthcare provider can do a blood test to see if you have become infected with parvovirus B19.

I have had a blood test for parvovirus B19. What do the results show?

A blood test for parvovirus B19 may show that you:

- Are immune to parvovirus B19 and have no sign of recent infection. You have protection against parvovirus B19.
- Are not immune and have not yet been infected. You may wish to avoid further exposure during your pregnancy.
- Have had a recent infection. You should discuss this with your healthcare provider.

If I'm infected, what do I need to do about my pregnancy?

There is no universally recommended approach to monitor a pregnant woman who has a documented parvovirus B19 infection. Some healthcare providers treat a parvovirus B19 infection in a pregnant woman as a low-risk condition and continue to provide routine prenatal care. Other healthcare providers may increase the frequency of doctor visits and perform blood tests and ultrasound examinations to monitor the health of the unborn baby. The benefit of these tests in this situation, however, is not clear. If the unborn baby appears to be ill, there are special diagnostic and treatment options available. Your obstetrician will discuss these options with you and their potential benefits and risks.

Is there a way I can keep from being infected with parvovirus B19 during my pregnancy?

There is no vaccine or medicine that can prevent parvovirus B19 infection. Frequent handwashing is recommended as a practical and probably effective method to reduce the spread of parvovirus. Excluding persons with fifth disease from work, childcare centers, schools, or other settings is not likely to prevent the spread of parvovirus B19, since ill persons are only contagious before they develop the characteristic rash.

The Centers for Disease Control and Prevention (CDC) do not recommend that pregnant women routinely be excluded from a workplace where a fifth disease outbreak is occurring, because of the problems noted above. Rather, CDC considers this to be a personal decision for the woman after discussion with her family, healthcare provider, and employer.

Information on the Web:

http://cdc.gov/ncidod/dvrd/revb/respiratory/parvo_b19.htm

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

HAND, FOOT, AND MOUTH DISEASE AND PREGNANCY

(Enteroviral Infections)

What causes hand, foot, and mouth disease (HFMD)?

HFMD is caused by viruses that belong to the enterovirus genus (group). This group of viruses includes polioviruses, coxsackieviruses, echoviruses, and enteroviruses. The most common cause of HFMD is coxsackievirus A16, but sometimes HFMD is also caused by enterovirus 71 or other enteroviruses.

What illness does it cause?

Most enteroviral infections are asymptomatic or are manifest by no more than minor malaise. HFMD is a common illness of infants and young children. It occurs most frequently in the summer and early fall. The disease usually begins with a fever, poor appetite, malaise (feeling vaguely unwell), and often with a sore throat. One or 2 days after fever onset, painful sores usually develop in the mouth. They begin as small red spots that blister and then often become ulcers. The sores are usually located on the tongue, gums, and inside of the cheeks. These sores may last 7 to 10 days. A non-itchy skin rash develops over 1–2 days. The rash has flat or raised red spots, sometimes with blisters. The rash is usually located on the palms of the hands and soles of the feet; it may also appear on the buttocks and/or genitalia. A person with HFMD may have only the rash or only the mouth sores. The disease is usually self-limited, but in rare cases has been fatal in infants.

Is HFMD illness serious?

HFMD illness is usually not serious. HFMD caused by coxsackievirus A16 infection is a mild disease and nearly all patients recover without medical treatment in 7 to 10 days. Complications are uncommon. Rarely, the patient with coxsackievirus A16 infection may also develop "aseptic" or viral meningitis, in which the person has fever, headache, stiff neck, or back pain, and may need to be hospitalized for a few days. Another cause of HFMD, enterovirus 71 (EV71) may also cause viral meningitis and, rarely, more serious diseases, such as encephalitis, or a poliomyelitis-like paralysis. EV71 encephalitis may be fatal. In 1998, a major outbreak in Taiwan caused nearly 130,000 cases and resulted in 78 deaths, nearly all of them in children under 5 years old. Newborns without maternal antibody who acquire this infection are at risk for serious disease with a high mortality rate.

I've recently been exposed to someone with enteroviruses. How will this exposure affect my pregnancy?

Enteroviruses, including those causing HFMD, are very common. Therefore, pregnant women are frequently exposed to them, especially during summer and fall months. Most enteroviral infections during pregnancy cause mild or no illness in the mother. Although the available information is limited, currently there is no clear evidence that maternal enteroviral infection causes adverse outcomes of pregnancy such as abortion, stillbirth, or congenital defects. However, mothers infected shortly before delivery may pass the virus to the newborn. Babies born to mothers who have symptoms of enteroviral illness around the time of delivery are more likely to be infected. Most newborns infected with an enterovirus have mild illness, but, in rare cases, they may develop an overwhelming infection of many organs, including the liver and heart, and die from the infection. The risk of this severe illness in newborns is higher during the first two weeks of life.

If I develop HFMD, what do I need to do about my pregnancy?

If you were exposed to HFMD, consult your healthcare provider for information about diagnosis, possible lab tests, and follow-up.

Is there any way I can keep from being infected with HFMD?

There is no preventive vaccine. Most people with HFMD have no or few symptoms, but they can spread the viruses in secretions from the nose or mouth and in stool. Specific prevention for HFMD or other non-polio enterovirus infections is not available, but the risk of infection can be lowered by good hygienic practices.

So throughout the pregnancy, practice good personal hygiene to reduce the risk of exposure to enteroviruses:

- Wash your hands with soap and water after contact with diapers and secretions from the nose or mouth.
- DO NOT kiss children on the mouth.
- DO NOT share food, drinks, or utensils (spoons or forks), or cups.
- Clean and sanitize items contaminated with secretions from the nose or mouth. Clean and disinfect items contaminated with stool.

Information on the Web:

http://www.cdc.gov/Features/HandFootMouthDisease/

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

HEPATITIS B VIRUS AND PREGNANCY

What is hepatitis B and what illness does this cause?

Hepatitis B is a viral illness. The hepatitis B virus infects the liver and can cause serious disease. Persons who are newly infected with hepatitis B virus (acute infection) may develop symptoms such as loss of appetite, tiredness, stomach pain, nausea, vomiting, dark (tea or cola-colored) urine, light-colored stools, and sometimes rash or joint pain. Jaundice (yellowing of eyes or skin) may also be present. Some people have no symptoms at all and may not know they have been infected. If the virus is present for more than six months, the person is considered to have a chronic (lifelong) infection. As long as persons are infected with the hepatitis B virus, they can spread the virus to other people.

Is hepatitis B serious?

Most people who have an acute infection recover without problems. Approximately 90% of infected infants will develop chronic infection. The risk goes down as a child gets older. Approximately 25% to 50% of children infected between the ages of 1 and 5 years will develop chronic hepatitis. The risk drops to 6% to 10% when a person is infected over 5 years of age. Most people who are chronically infected have no symptoms and feel healthy. However, some people do develop non-specific symptoms at times when the virus is reproducing and causing liver problems. People with lifelong hepatitis B infection can develop cirrhosis of the liver, liver cancer, and/or liver failure, which can lead to death.

If I've been exposed to someone infected with the hepatitis B virus, what should I do?

An exposure is defined as contact with blood or other body fluids of an infected person. Contact includes touching the blood or body fluids when you have open cuts or wounds (that are less than 24 hours old or wounds that have reopened), splashing blood or bloody body fluids into the eyes or mouth, being stuck with a needle or other sharp object that has blood on it, or having sex or sharing needles with someone with hepatitis B virus. A baby can get hepatitis B from its infected mother during childbirth. It is not spread through food or water or by casual contact (e.g., shaking hands or kissing the face of a person who is infected with hepatitis B).

Everyone who has an exposure to a person infected with hepatitis B virus should have blood tests done as soon as possible to determine whether treatment is needed.

At the time of exposure, persons who have never had the disease or vaccine (susceptible to the virus) should receive a dose of hepatitis B immune globulin (HBIG) and the first dose of hepatitis B vaccine. Doses two and three of the vaccine series should be completed on schedule. In some cases, people who have already been vaccinated may be tested and/or revaccinated.

How will this exposure affect my pregnancy?

If a mother develops hepatitis B during her pregnancy, there is a chance that the baby may also become infected. If the mother develops acute hepatitis in the third trimester of pregnancy or the immediate postpartum period, the risk of infection for the newborn baby may be 60% to 70%. It is very important that the baby receive treatment right after birth to get as much protection as possible.

HEPATITIS B VIRUS AND PREGNANCY

If you have hepatitis B virus in your blood, you can pass hepatitis B to your baby during the birthing process. About 90% of infected infants will develop chronic infection. They may have the virus for the rest of their lives and be a source to spread the disease. There may be long-term effects from acquiring hepatitis B at such an early age.

Can anything be done to protect my baby?

All pregnant women should be tested for hepatitis B virus early in their pregnancy. **The testing should be done during each pregnancy.** If the blood test is positive for hepatitis B virus, the baby should receive the first dose of hepatitis B vaccine along with a shot of HBIG within the first 12 hours of life. The vaccine series should be completed on time. Check with your healthcare provider for the schedule for dose 2 and dose 3 of the vaccine. Once the baby has turned 1 year of age, the baby should have a blood test to make sure infection did not occur and that the vaccine is protecting the baby.

I have had a blood test for hepatitis B. What do the results of the blood test show?

The blood test for hepatitis B may show that you:

- Are immune (had hepatitis B disease or vaccine in the past) and have no sign of recent infection. You are protected and do not need to worry about hepatitis B.
- Are not immune and have not yet been infected. You should receive the hepatitis B vaccine series if you are at risk of blood exposures at your job or through risk behaviors in your personal life. Talk to your healthcare provider about this.
- Have had a recent infection. Discuss the situation with your healthcare provider.
- Have chronic infection. Talk to your healthcare provider about regular medical evaluation and monitoring.

Is there a way I can keep from being infected with hepatitis B during my pregnancy?

Yes, get vaccinated. It is safe to get hepatitis B vaccine while you are pregnant. In the meantime:

- Wear gloves when handling blood and body fluids.
- Clean and disinfect contaminated objects or surfaces and wear gloves. (See pgs 35-41)
- Wash hands after removing gloves.
- DO NOT share personal care items, such as toothbrushes, razors, or nail clippers.
- If your sexual partner is infected with hepatitis B virus, use latex condoms during intercourse.
- DO NOT share needles to inject drugs or to perform tattoos or body piercings.

Information on the Web:

http://www.cdc.gov/hepatitis/b/index.htm

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 (8-5 Monday thru Friday), or call your local health department, or call MDHSS' Bureau of HIV, STD, and Hepatitis: Telephone: 573-751-6439 or Toll-free 866-628-9891.

HUMAN IMMUNODEFICIENCY VIRUS (HIV) AND PREGNANCY

What is HIV?

Human immunodeficiency virus (HIV) is a retrovirus that attacks the body's immune system allowing other infections to occur. Advanced HIV infection is called Acquired Immunodeficiency Syndrome (AIDS).

HIV can be spread when the body fluids (blood, semen, vaginal fluids, and breast milk) of an infected person enter your body. In adults, the virus is most often spread through sexual contact or by sharing needles. Although it is rare, there are some children who become infected with the virus from their infected mothers during pregnancy, at the time of birth, or through breastfeeding. With the current screening guidelines, spread through blood transfusion is rare.

I've recently been exposed to HIV. What should I do?

An exposure is defined as direct contact with the blood or body fluids of an infected person. Contact includes touching the blood or body fluids when you have open cuts or wounds (that are less than 24 hours old or wounds that have reopened), splashes of blood or body fluids into the eyes or mouth, being stuck with a needle or other sharp object that has blood on it, or having sex or sharing needles with someone with HIV. A baby can get HIV from its infected mother during childbirth and from drinking breast milk from an infected mother. In Missouri most women are screened for HIV during pregnancy; therefore, risk of HIV transmission from mother to infant is unlikely. However, without proper treatment, transmission can occur during childbirth. Breast feeding is not recommended.

Everyone who has an exposure to HIV should have a blood test to determine whether or not they have been infected with the virus. The test should be repeated 3 months and 6 months after exposure to completely rule out infection.

How will this exposure affect my pregnancy?

All pregnant women should be tested for HIV early in their pregnancy. If a woman is infected with HIV during her pregnancy, there is a chance that she could give the infection to her baby. About 25% of babies of infected mothers who do not receive antiretroviral treatment may become infected, whereas, about less than 2% become infected when the mother receives antiretroviral treatment. The infant can become infected anytime during pregnancy, but infection usually happens just before or during delivery. **Women who are infected with HIV should not breastfeed their babies; the retrovirus is present in the breast milk.**

HIV infection can be diagnosed early in infants using special viral diagnostic tests, polymerase chain reaction (PCR). An infant may be tested as early as 48 hours and may be tested periodically for up to 2 years. After the age of 18 months a child may be tested using an antibody test. By that time the baby will no longer have mother's antibodies in the blood.

How can I tell if I'm infected with HIV?

The only way to determine whether you are infected is to be tested for HIV infection. You cannot rely on symptoms to know whether or not you are infected with HIV. Most people who are infected with HIV may have vague symptoms such as low grade fever, body aches, swollen lymph nodes and glands, however, some do not have any symptoms for many years.

What are the HIV/AIDS symptoms?

The symptoms listed below are not specific for HIV and may have other causes. Most persons with HIV have no symptoms at all for several years. The only way to determine whether you are infected is to be tested for HIV infection. HIV testing should be an integral part of routine medical care. Talk to your health care provider about being tested.

Early symptoms (weeks to months after exposure)

- Flu-like illness
- Swollen lymph nodes
- Rash

Late symptoms (years after exposure)

- Persistent fevers
- Night sweats
- Prolonged diarrhea
- Unexplained weight loss
- Purple bumps on skin or inside the mouth and nose
- Chronic fatigue
- Swollen lymph nodes
- Recurrent respiratory infections

I have had a blood test for HIV. What do the results of the blood test show?

There are several steps to test for HIV. They are all done on the same sample. First an enzyme immune assay (EIA) can be performed. For this test to be accurate, it should be conducted a minimum of three weeks to three months after a known exposure. It takes that long to develop sufficient antibodies for testing. If negative, the person has no HIV antibodies. If the EIA is positive, a Western blot test is done to confirm the result. The person is considered HIV-infected if the Western blot is positive. Early in the infection it is possible to have a positive EIA and a negative Western blot test, so further testing or retesting in a month's time is recommended. In some circumstances a HIV viral load (number of viral particles) may be requested for diagnostic and treatment purposes.

Is there a way I can keep from being infected with HIV during my pregnancy?

- Use new latex condoms every time you have sex. Limit the number of partners.
- Wear plastic or latex gloves when handling blood and body fluids.
- Clean and disinfect contaminated objects or surfaces and wear gloves. (See pgs 35-41)
- Wash hands after removing gloves.
- DO NOT share personal care items, such as toothbrushes, razors, or nail clippers.
- DO NOT share needles to inject drugs or to perform tattoos or body piercings.
- Ask your sex partners if they have been tested and what the results were.

Information on the Web:
http://cdc.gov/hiv/default.htm

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 (8-5 Monday thru Friday), or call your local health department, or call MDHSS' Bureau of HIV, STD, and Hepatitis: Telephone: 573-751-6439 or Toll-free 866-628-9891.

RUBELLA (GERMAN MEASLES) AND PREGNANCY

What is rubella?

Rubella (German measles) is a viral infection. Symptoms include generalized skin rash, tiredness, headache, fever, and swollen glands in the area behind the ears and the neck (lymphadenopathy). It is estimated that 25% to 50% of persons infected with rubella may not have any symptoms.

What illness does rubella infection cause? Is this illness serious?

Rubella is usually a mild illness. However, there may be severe illness in adults who have not had the disease in the past or have not had the vaccine. Joint stiffness and/or joint pain may occur in up to 70% of adult women infected with rubella. Some of the other problems that may occur include a bleeding problem called thrombocytopenia and infection of the brain (encephalitis). If a woman gets rubella during her pregnancy, congenital rubella syndrome (CRS) may occur and result in miscarriage, stillbirth, and severe birth defects. A baby with CRS may have blindness, heart defects, deafness, and mental retardation.

I've been exposed to someone with rubella. How will this exposure affect my pregnancy?

It is recommended that all women be tested for rubella early in their pregnancy. An estimated 90% of young adults in the U.S. are immune to rubella (most likely through vaccination). If you are immune and have been exposed, there is no concern. However, about 25% of babies whose mothers get rubella during the first three months of her pregnancy are likely to develop a fetal infection and are likely to have congenital rubella syndrome (CRS) as described above. After the 20th week of pregnancy if a woman develops rubella, most likely there will not be any problems for either the mother or the unborn baby.

What should I do about this exposure?

If you know that you are immune to rubella (had a blood test to show that you have antibodies to rubella), you do not need to be concerned about the exposure. If you are not immune to rubella and have been exposed to someone with rubella or have developed a rash illness that might be rubella, you should call your healthcare provider. They will do a blood test to see if you have become infected with the virus.

I have had a blood test for rubella. What do the results of the blood test show?

The blood test for rubella may show that you:

- Are immune (had rubella disease or vaccine in the past) and have no sign of recent infection. You are protected from rubella.
- Are not immune and have not yet been infected. You may wish to avoid anyone with rubella during your pregnancy.
- Have or had a recent infection. You should discuss what the risks are based on your stage of pregnancy with your healthcare provider.

If I'm infected or have been exposed, what do I need to do about my pregnancy?

Talk to your healthcare provider. Recommendations will depend on the stage of your pregnancy.

Is there a way I can keep from being infected with rubella during my pregnancy?

If you are not pregnant and not immune, all adults working with children should know their vaccine history or immune status. If you are not immune, you should be vaccinated with MMR (measles, mumps, and rubella) vaccine.

When you are given the vaccine you should avoid becoming pregnant for at least one month after immunization. **Rubella vaccine should not be given to pregnant women.**

If you are pregnant and not immune, you should receive MMR vaccine after your baby is delivered.

Information on the Web:
http://www.cdc.gov/rubella\

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

VARICELLA-ZOSTER VIRUS (CHICKENPOX AND SHINGLES)

What is varicella-zoster?
Varicella-zoster is a herpes virus that causes chickenpox, a common childhood illness. It is highly contagious. If an adult develops chickenpox, the illness may be more severe. After a person has had chickenpox, the varicella-zoster virus can remain inactive in the body for many years. Herpes zoster (shingles) occurs when the virus becomes active again.

What illnesses does varicella-zoster cause?
Chickenpox first occurs as a blister-like skin rash and fever. It takes from 10-21 days after exposure for someone to develop chickenpox. The sores commonly occur in batches with different stages (bumps, blisters, and sores) present at the same time. The blisters usually scab over in 5 days. A person with chickenpox is contagious 1-2 days before the rash appears and until all blisters have formed scabs. Children with weakened immune systems may have blisters occurring for a prolonged time period. Adults can develop severe pneumonia and other serious complications.
Shingles occurs when the virus, which has been inactive for some time, becomes active again. Severe pain and numbness along nerve pathways, commonly on the trunk or on the face, are present. Clusters of blisters appear 1 to 5 days later. The blisters are usually on one side of the body and closer together than in chickenpox. **Shingles does not spread as shingles from one person to another.** If people who have never had chickenpox have contact with the fluid from the shingles blisters, they can develop chickenpox.

Can you get chickenpox if you've been vaccinated?
Yes. About 15%–20% of people who have received one dose of varicella (chickenpox) vaccine do still get chickenpox if they are exposed, but their disease is usually mild. Vaccinated persons who get chickenpox generally have fewer than 50 spots or bumps, which may resemble bug bites more than typical, fluid-filled chickenpox blisters. In 2006, the Advisory Committee on Immunization Practices (ACIP) voted to recommend routine two-dose varicella vaccination for children. In one study, children who received two doses of varicella vaccine were three times less likely to get chickenpox than individuals who have had only one dose.

Are chickenpox and shingles serious illnesses?
The symptoms may be more severe in newborns, persons with weakened immune systems, and adults. Serious problems can occur and may include pneumonia (bacterial and viral), brain infection (encephalitis), and kidney problems. Many people are not aware that before a vaccine was available, approximately 10,600 persons were hospitalized, and 100 to 150 died, as a result of chickenpox in the U.S. every year.

What should I do about an exposure to varicella?
If you have been in contact with someone with chickenpox or shingles, or if you have a rash-associated illness that might be chickenpox or shingles, discuss your situation with your healthcare provider. Blood tests may be done to see if you have become infected with the virus or have had the disease in the past. **If you are pregnant and not immune** and have been exposed to chickenpox or shingles, call your healthcare provider immediately. Your provider may choose to treat you with a medication called varicella-zoster immune globulin (VZIG), but in order for this medication to be most helpful, it needs to be given as soon as possible after your exposure to varicella.

I'm pregnant and have recently been exposed to someone with chickenpox. How will this exposure affect me or my pregnancy?
Susceptible pregnant women are at risk for associated complications when they contract varicella. Varicella infection causes severe illness in pregnant women, and 10%-20% of those infected develop varicella pneumonia, with mortality (death) reported as high as 40%.

- Because of these risks, pregnant women without evidence of immunity to varicella who have been exposed to the virus may be given varicella-zoster immune globulin (VZIG) to reduce their risk of disease complications.

- If you are pregnant and have never had chickenpox, and you get chickenpox during the:
  - First half (about 20 weeks) of your pregnancy, there is a very slight risk (0.4% to 2%) for birth defects or miscarriage.
  - Second half of your pregnancy, the baby may have infection without having any symptoms and then get shingles (zoster) later in life.
- Newborns whose mothers develop varicella rash from 5 days before to 2 days after delivery are at risk for neonatal varicella, associated with mortality as high as 30%. These infants should receive preventive treatment with varicella-zoster immune globulin (VZIG).

I'm pregnant and have had a blood test for chickenpox. What do the results of this test show?
The blood test can show that you:

- Are immune (have already had varicella disease or varicella vaccine) and have no sign of recent infection. You have nothing further to be concerned about.
- Are not immune and have not yet been infected. You should avoid anyone with chickenpox during your pregnancy.
- Have or recently had an infection. You should discuss what the risks are for your stage of pregnancy with your healthcare provider.

Is there a way I can keep from being infected with chickenpox?
Yes, make sure all your vaccines are up to date, especially if you are planning a pregnancy. Vaccination is the best way to protect yourself and those you love. If you are not immune, you should be vaccinated. You will receive two doses of varicella (chickenpox) vaccine one month apart. You should avoid becoming pregnant for at least one month after the last vaccination. **Varicella vaccine should not be given to pregnant women.**
If you are pregnant, have your healthcare provider give you the varicella vaccine after your baby is delivered.

Shingles Vaccination, what you should know:
The Centers for Disease Control and Prevention (CDC) recommends shingles vaccine (Zostavax®) for people 60 years of age and older. This is a one-time vaccination to prevent shingles. There is no maximum age for getting the shingles vaccine.

Anyone 60 years of age or older should get the shingles vaccine, regardless of whether they recall having had chickenpox or not. Studies show that more than 99% of Americans ages 40 and older have had chickenpox, even if they don't remember getting the disease.

Your risk for getting shingles begins to rise around age 50. However, shingles vaccine (Zostavax®) is only recommended for persons age 60 and older because the safety and effectiveness of the vaccine have only been studied in this age group.

Even if you have had shingles, you can still receive the shingles vaccine to help prevent future occurrences of the disease. There is no specific time that you must wait after having shingles before receiving the shingles vaccine. The decision on when to get vaccinated should be made with your healthcare provider. Generally, a person should make sure that the shingles rash has disappeared before getting vaccinated.

Additional information can be found at:
http://www.cdc.gov/ncidod/diseases/list_varicl.htm

For more information, call the Missouri Department of Health and Senior Services (DHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday), or call your local health department.

HUMAN BITING INCIDENTS

Biting can be a common occurrence in the childcare and school setting. The risk of getting hepatitis B virus (HBV) or Human Immunodeficiency Virus (HIV) from a bite is extremely low for either the child who did the biting or the child or staff member who was bitten. It is very difficult to spread these viruses by biting. In addition, most infants are now being vaccinated against the hepatitis B virus and the number of preschool children (3 to 5 years) with chronic hepatitis B infection is expected to be low. However, biting may cause an infection at the bite site.

Written policies and procedures should be in place before biting incidents occur in order to ensure proper communication with parents/guardians and staff.

Childcare and school staff, what to do if a biting incident occurs in the childcare or school setting:

1. Determine if the bite broke the skin (produced an open wound or puncture wound) and/or caused bleeding.
2. Wear gloves when providing immediate first aid to the bite wound. The wound should be carefully cleaned with soap and water.
3. Inform parents/guardians of both children of the biting incident when two children are involved in the incident. This should be done as soon as possible.
4. If the bite broke the skin, it is recommended that the family or staff consult with a healthcare provider as soon as possible for any further instructions.
5. **DO NOT share the names or any information about the children involved in the biting incident.** Release of any information may be a breach of confidentiality or data privacy.
6. Document the incident in writing as established by your facility's policy.

Parent/guardian or staff member, reasons to call your healthcare provider:

- To determine if blood tests and/or treatment are needed. It is unlikely that the bite will be the source of infection for hepatitis B or HIV, but each situation must be looked at on a case-by-case basis.
- If the bitten person is not up-to-date for tetanus/diphtheria/pertussis and hepatitis B vaccinations, the person should receive these vaccines as soon as possible.
- If the bitten person has any of the following signs of infection:
  - Increased swelling, redness, warmth, or tenderness at the site.
  - Pus at the site.
  - Fever of 100°F or higher.

If any of these symptoms occur or if the bitten person begins to act sick or the wound does not heal, call your healthcare provider immediately.

Prevention and Control

- Parents/guardians and childcare and school staff should develop a behavior modification plan to prevent further incidents.
- A child who is infected with HIV or hepatitis B virus and continues to bite should be assessed by a team of medical experts to determine an appropriate response plan to prevent the risk of spread of these viruses.

HUMAN BITING INCIDENTS

Call your childcare health consultant or your local or state health department for additional assistance with these incidents. For questions about possible exposures, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

CLEANING, SANITIZING, AND DISINFECTION

This section provides general information about cleaning, sanitizing, and disinfecting; guidelines for specific items commonly used in the childcare and school setting; and a checklist for choosing a disinfectant other than bleach.

Definitions

Cleaning Mechanical process (scrubbing) using soap or detergent and water to remove dirt, debris, and many germs. It also removes imperceptible contaminants that interfere with sanitizing and disinfection.

Sanitizing Chemical process of reducing the number of disease-causing germs on cleaned surfaces to a safe level. This term is usually used in reference to food contact surfaces or mouthed toys or objects.

Disinfecting Chemical process that uses specific products to destroy harmful germs (except bacterial spores) on environmental surfaces.

General information

- Lessen the harmful effects of germs (bacteria and viruses) by keeping their numbers low.
- Control germs effectively by frequent, thorough handwashing; cleaning and sanitizing surfaces and objects that come into contact with children; and proper handling and disposal of contaminated items.
- Follow proper cleaning and sanitizing practices whether dirt is seen or not. Germs can live on wet and dry surfaces and on those items that do not look soiled or dirty.
- Increase the frequency of cleaning and sanitizing to control certain communicable diseases.
- Treat all body fluids as infectious because disease-causing germs can be present even in the absence of illness.
- Know that children who do not show symptoms of illness may be as infectious as those children who do have symptoms.

Glove use

- Wear disposable gloves (consider using non-latex gloves as a first choice) when:
  - Handling blood (e.g., nosebleeds, cuts) or items, surfaces, or clothing soiled by blood or body fluids.
  - Covering open cuts, sores, or cracked skin.
  - Cleaning bathrooms, diapering areas, or any areas contaminated with stool, vomit, or urine.
- Remove gloves properly and discard after each use.
- **ALWAYS WASH HANDS IMMEDIATELY** when gloves are removed. Also wash hands when there has been contact with any body fluids. Follow handwashing and gloving procedures.

When using cleaning, sanitizing, or disinfecting products ALWAYS:

- Consider the safety of children.
- Choose a product appropriate for the task.
- Follow the label instructions for mixing, using, and storing solutions.
- Read the warning labels.
- Store these products safely out of reach of children.
- Clean soiled surfaces and items before using sanitizers or disinfectants.

Cleaning

- Use warm/hot water with any household soap or detergent.
- Scrub vigorously to remove dirt and soil. Use a brush if item is not smooth or has hard to reach corners, such as toys and bottles.
- Change water when it looks or feels dirty, after cleaning bathrooms and diaper changing area, and after cleaning the kitchen.
- Always clean the least dirty items and surfaces first (for example, countertops before floors, sinks before toilets).
- Always clean high surfaces first, then low surfaces.
- Disposable towels are preferred for cleaning. If using reusable cloths/rags, launder between cleaning uses. DO NOT use sponges since they are hard to clean.
- Clean completely on a regular schedule and spot clean as needed.

Sanitizing or Disinfecting Products (See pg 38 for guidelines for specific items.)

- **Bleach (Sodium hypochlorite)**

  Bleach solutions of differing concentrations can be used for sanitizing and disinfecting. You can prepare your own bleach solutions by mixing specified amounts of household bleach and water (see pg 40 for how to mix different solutions and for information on handling, storage, and safety concerns), or you can purchase commercially prepared bleach-containing products. Make sure the bleach solution is appropriate for the type of item to be sanitized or disinfected.

  Bleach is safe when used as directed, is effective against germs when used at the proper concentration, is inexpensive if you make your own solutions, and is readily available. However, bleach is corrosive to metals and can strip floor wax, is ineffective in the presence of body fluids and soil (you must always clean first), is unstable when mixed with water (needs to be made fresh daily), and can be dangerous if mixed with other products.

  - ***Bleach solution 1 - disinfectant*** (See pg 40)

    This solution contains approximately 800 parts per million (ppm) of sodium hypochlorite. Only surfaces with blood or heavy fecal contamination need to be disinfected.

  - ***Bleach solution 2 - sanitizer*** (See pg 40)

    This solution contains 50 to 200 parts per million (ppm) of sodium hypochlorite. For equipment that is washed/rinsed/sanitized in sinks (immersion), a solution of 50 to 100 ppm should be used. For surfaces that are cleaned-in-place such as high chairs and other eating surfaces, a solution of 100 to 200 ppm should be used.

    The Missouri Food Code states that the range of the sanitizing solution must be from 50 to 200 ppm. It must not exceed 200 ppm. Chlorine test kits are available for purchase to check the concentration of your solution. Licensed facilities are required to use a test kit to measure the strength of the sanitizing solution.

- **Quaternary ammonia products (quats)**

  There are many types of quaternary ammonia products, and they are not all the same. However, a common chemical name of the active ingredient is *dimethyl benzyl ammonium chloride.* It is

important to read the label and to follow the instructions carefully to make sure you are using a product that is appropriate for the type of item to be sanitized or disinfected.

Use the information on pg 40 to determine if the product meets the criteria for both a sanitizer and/or disinfectant. For example, if using for disinfection after a blood spill or splatter, it must meet OSHA requirements for the bloodborne pathogen exposure plan, that is, be EPA-registered as tuberculocidal, or list that HIV and hepatitis B viruses are killed by the product.

Use test kit daily to monitor the correct concentration of the product used in the food areas (200 to 400 ppm). A separate test kit is needed to measure the concentration of the quat solution. Obtain test kits from your chemical supplier.

Use separate bottles and label each clearly with its intended use with the name of product, date mixed, food/mouthed contact use, or general disinfection. Always **STORE OUT OF CHILDREN'S REACH** – undiluted quats can be fatal if ingested.

REMEMBER when using QUATS:

Read the label and follow the manufacturer's directions exactly for:
- how to mix product.
- how to apply the solution.
- how long to leave on the surface.
- whether to rinse after exposure time.
- safety concerns when used around children.

The solution for use on food contact surfaces may differ from that used for general disinfection. **Read the label and follow the directions exactly**. For more information about a specific product call the distributor or the company.

- **Other sanitizing or disinfecting products**

Check with your local health department to determine if the product can be used in your facility. Always read the label and follow the directions carefully.

Disinfecting Procedures

- **Blood and body fluid spills or soiling**

1. Wear a disposable medical glove for any blood and body fluid cleanup. (See pg 56)
2. Use disposable towels to **ALWAYS clean objects and surfaces contaminated with blood and body fluids (stool, urine, vomit**) and discard in a plastic-lined, covered waste container.
3. Scrub the area with soap or detergent and water to remove blood or body fluids and discard paper towels. Rinse the area with clean water.
4. **Disinfect immediately** using ***bleach solution 1*** **or another appropriate disinfecting product** on any items and surfaces contaminated with blood and body fluids (stool, urine, vomit).
5. Allow surface to air dry.
6. Discard disposable gloves. If using utility gloves, follow cleaning/disinfecting procedure.
7. Wash hands immediately.

Sanitizing Procedures

- **General**

1. Clean first with soap or detergent and water.
2. Rinse.
3. Spray the area thoroughly with ***bleach solution 2*** **or another appropriate sanitizing product.**
4. Wipe the area to evenly distribute the sanitizer using single-service, disposable paper towels.
5. Discard paper towels in a plastic-lined container.
6. Allow to air dry.
7. Wash hands.

- **Water play tables**

1. Before any new group of children begins an activity at a water play table or water basin, the water play table or basin is washed, rinsed, and sanitized.
2. Chlorine is maintained at 10 to 50 ppm (parts per million).
3. Any child participating in an activity at a water play table or basin washes his or her hands before the activity.
4. The water table or basin is emptied as soon as the water play activity is over.

- **Washable items like linens, towels, bedding**

1. Use hot water in a **washing machine.** This is acceptable for soaking, cleaning, sanitizing, and disinfecting washable articles.
2. Read the label on the laundry detergent.
3. **Read** the **label** and **follow directions exactly if using bleach**.
4. Dry items in a dryer on high heat.

- **Items in contact with food or are mouthed** (toys, eating utensils, dishes, formula bottles)

Three separate sinks (or basins) method

1. Sink/Basin #1: wash items in hot water using detergent (bottle brushes as needed).
2. Sink/Basin #2: rinse in clear water.
3. Sink/Basin #3: soak items in ***bleach solution 2*** for at least one minute.
4. Remove items, DO NOT rinse, and place on rack to air dry.

- **Dishwashers**

To be acceptable a dual process for cleaning with the detergent and agitation and sanitizing with heat or chemicals must be provided.

Two types are available, commercial and household:

- National Sanitation Foundation (NSF) approved commercial dishwashers are required in commercial childcare or school food service. The NSF standards require that the water temperature reach 180^{o} F, or that there is 50 to 100 ppm chlorine in the final rinse of the dishwasher.
- Household dishwashers must have a heat sanitizing setting. If at the end of the cycle when the machine is opened the dishes are too hot to touch, then the items are sanitized. It is strongly recommended that household dishwashers carry the NSF mark of approval.

Green Cleaning Products

There has been an increased interest in using "green" cleaning products in childcare settings, schools, and homes. This interest is twofold: first is due to reports about increased allergies, sensitivities, and illness in children associated with chemical toxins in the environment and second, these products tend to cause less damage to the environment.

Children are more vulnerable to chemical toxins because of their immature immune systems, rapidly developing bodies, and their natural behaviors. They play on the floor, are very tactile having much body contact with the tables, desks, or play equipment, and have oral behaviors of mouthing toys and surfaces and putting their hands in their mouths.

Green cleaning products can be used in childcare and school settings. Green sanitizers or disinfectants must be approved by your local public health agency or your childcare consultant.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

HOW TO MIX BLEACH SOLUTIONS

BLEACH SOLUTION 1 (disinfectant) Use for blood or heavy fecal contamination		***BLEACH SOLUTION 2*** (sanitizer) Use for mouthed toys and food contact surfaces	
Water	**Bleach** 6.0 - 6.25%	**Water**	**Bleach** 6.0 - 6.25%
1 gallon (16 cups)	¼ cup	1 gallon (128 ounces)	1 teaspoon
1 quart (4 cups)	1 tablespoon	1 quart (32 ounces)	½ teaspoon
1 pint (2 cups)	1 ½ teaspoons	1 pint (16 ounces)	¼ teaspoon

*** Prepare *bleach solution 1* daily or as needed.** * Test *bleach solution 2* daily using a test kit to ensure solution is maintained at 100 ppm chlorine. * Date bleach when opened; do not keep longer than 30 days. ***** Date bleach when purchased; do not keep longer than 3 months.	* Always follow the manufacturer's instructions exactly. ***** Store bleach safely out of reach of children. *** NEVER MIX bleach with any other household product.**

NOTE: Mix the bleach solution in an airtight, cloudy plastic container and **label container with the date made and bleach solution contents**.

Group Home/Child Care Center Recommended Cleaning Schedule

DAILY

- ❑ Items washed/rinsed/sanitized/air dried immediately or after each use:

1. Food utensils
2. Food contact surfaces including eating surfaces, high chairs, microwaves etc.
3. Potty chairs and adapter seats
4. Diapering surfaces
5. Any toys, floors, or other surfaces that have had contact with bodily fluids

- ❑ Items washed/rinsed/sanitized/air dried daily:

1. Toilets, urinals, sinks
2. Non-absorbent floors in infant/toddler spaces
3. Infant/Toddler toys used during the day
4. Soiled diaper container

- ❑ Areas cleaned daily via conventional methods:

1. Carpeting
2. Non-absorbent floors
3. Kitchen surfaces that are not food-contact such as stove tops and countertops

- ❑ Outdoor areas checked:

1. Playground free of trash, leaf litter, animal feces, standing water, etc.
2. Dumpster area clean, no pest harborage

WEEKLY

- ❑ Food utensil storage trays
- ❑ Kitchen appliances: oven, warewashing equipment, refrigerator, ventilation hood, etc.
- ❑ Refuse containers (excluding diaper container)
- ❑ Diapering table, especially under diapering pad
- ❑ Children's bedding:

1. Individually assigned sheets laundered
2. Mattresses and cots checked for spills, stains, etc.
3. Cribs and crib rails

- ❑ Children's cubby holes/personal storage areas
- ❑ Large indoor equipment
- ❑ Window sills and/or other frequently contacted surfaces not previously mentioned
- ❑ Quick inventory check of cleaning supplies (detergent, sanitizer, mop heads, etc.)

MONTHLY

- ❑ Window troughs
- ❑ Wall/floor areas under or behind furniture and other equipment
- ❑ Closet/storage/basement areas checked for cleanliness and evidence of pests
- ❑ Routine dusting:

1. Baseboards, window and door trim
2. Ceiling fans, portable fans
3. Blinds and curtains
4. Televisions and other furniture
5. HVAC vents
6. Bathroom mechanical vents
7. Toy/book shelves
8. Light fixtures

- ❑ Kitchen drawers and cabinet interiors
- ❑ Food pantry shelving
- ❑ Toy chests/storage bins
- ❑ Toy/book shelves

This sample cleaning schedule is provided to assist in implementing an effective cleaning schedule and may not be all-inclusive. Increased cleaning frequencies may be necessary in the event of a disease outbreak or other unforeseen circumstances. Courtesy of the Missouri Department of Health and Senior Services: http://www.dhss.mo.gov/EnvironmentalChildCare/

Facilities and equipment must be cleaned as often as necessary to provide a safe, clean environment for children in care

DIAPERING

General information

Childcare providers and school health staff can help prevent the spread of infectious organisms by changing diapers in a separate designated area and by using effective cleaning and disinfecting practices. Germs found in the stool can be spread when the hands of caregivers or children contaminate objects, surfaces, or food. Infections that can be spread by contact with stool include: bacteria (e.g., S*almonella*, *Shigella*, *Campylobacter*), parasites (e.g., *Cryptosporidium, Giardia*, pinworms), and viruses (e.g., rotavirus, norovirus, hepatitis A virus).

Note: The importance of using good body mechanics cannot be over emphasized when changing diapers of larger or older children, as well as infants and toddlers. Use appropriate bending and lifting techniques to prevent injury.

Basic principles

- Change diapers in a designated diapering area.
- Follow safety procedures and do not leave children unattended.
- Use surfaces that can be easily cleaned and sanitized.
- Use a separate area for diapering that is away from the medication, food storage, food preparation, and eating areas.
- Dispose of soiled diapers in a covered waste container.
- Wash hands of both staff and children after diapering.
- DO NOT allow objects such as toys, blankets, pacifiers, or food in the diapering areas.
- Consult with your childcare health consultant or school nurse for any special diapering issues.

Equipment

- **Changing surface**
  - The changing surface should be separate from other activities.
  - The surface should be smooth, moisture-resistant, and of an easily cleanable material.
  - For extra protection use a non-absorbent, disposable paper under the child.
  - The changing surface should be next to a handwashing sink.

- **Handwashing sink and supplies**
  - Adequate handwashing facilities should be available to school staff when diapering children in school settings.
  - The handwashing sink should be equipped with both hot and cold running water mixed through one faucet (hot water temperature not greater than 120^0 F).
  - The water controls should ideally be foot-operated or knee-operated to avoid contamination of hands and/or water controls.
  - If faucets are not foot-operated or knee-operated, turn off faucet handles with a disposable paper towel.
  - The changing sink should not be the same as the food preparation sink.
  - Liquid soap, paper towels, and fingernail brush should be within reach.
  - Single-service, disposable towels should be used instead of cloth towels.

Handwashing procedures

The hands of the provider and child must be washed after each diaper change. Refer to handwashing information on pgs 57-60. Check with your childcare health consultant or school nurse to determine which handwashing procedures are appropriate for different age groups of children.

Diapers

- High-absorbency disposable diapers are preferred because cloth diapers do not contain stool and urine as well and require more handling (the more handling, the greater chances for spread of germs).
- All diapers must have an absorbent inner lining completely contained within an outer covering made of waterproof material that prevents the escape of stool and urine.
- Soiled clothing should be placed in a plastic bag and sent home each day.
- If cloth diapers are used, talk with your childcare health consultant about concerns and procedures.

Cloth diaper considerations

- The outer covering and inner lining must both be changed with each diaper change.
- Outer coverings must not be reused until they are laundered.
- Each child should have an individually labeled, covered, and plastic-lined diaper pail.
- Soiled diapers or clothing should NOT be rinsed in sinks or toilets.
- The diaper or clothing soiled with stool must be put in separate plastic bags before placing into the diaper pail.
- Soiled cloth diapers and/or clothing should be sent home each day in clean plastic bags.
- An adequate supply of diapers and diaper coverings must be available for each day.

Diapering procedures, see pg 45.

Changing pull-ups/toilet learning procedures, see pg 46.

Disposable gloves

- Non-latex gloves without powder should be considered because of possible allergy to latex in staff and children.
- Gloves should be worn when changing the diaper of a child with diarrhea or a known infection that is spread through the stool.
- Pregnant women or women considering pregnancy should wear gloves when changing any diaper.
- Staff should wear gloves if they have open cuts, sores, or cracked skin, or if the children have open areas on their skin.
- Gloves should be discarded and hands washed after each diaper change.
- Gloves must be single use only. Food service gloves are not appropriate.

Disposable wipes

- A sufficient number of pre-moistened wipes should be dispensed before starting the diapering procedure to prevent contamination of the wipes and/or the container.
- Each child should have an individually labeled container of wipes that is not shared with others. Put the child's full first and last name on the container.

Skin care items

- Childcare providers and schools must have policies regarding use of these products. Parents/guardians or healthcare providers must provide written, signed directions for their use.
- If skin care items are used, keep them within the provider's reach and out of the reach of children.
- Each child must have an individually labeled container of skin care products that is not shared with others. Label the container with the child's full first and last name.
- Skin care products must be used according to package directions.

Plastic bags

- Disposable plastic bags must be used to line waste containers and to send soiled clothing or cloth diapers home.
- Plastic bags must be stored out of children's reach.

Waste containers and diaper pails

- A tightly covered container, preferably with a foot-operated lid, is recommended.
- The container must be kept away from children.
- The container must be lined with a disposable plastic trash bag.
- The waste container should be emptied before full and at least daily.
- The container should be cleaned with detergent and water, rinsed, and disinfected daily.

Potty chair or commodes (not recommended)

- Flush toilets are recommended rather than commodes or potty chairs. However, if potty chairs or commodes are used, frames should be smooth and easy to clean.
- Empty the potty chair or commode into the toilet, clean with soap and water, rinse, and disinfect after each use. Empty dirty cleaning water into the toilet and not the hand sink.
- If a potty chair or commode has wheels, lock wheels into position while using.
- Utilize proper body mechanics when moving and positioning a child on a potty chair or commode.

Cleaning and sanitizing supplies needed

- Disposable gloves and towels.
- Cleaning solution.
- Sanitizing solution

Sanitizing procedures

1. Clean first with soap or detergent and water.
2. Rinse.
3. Spray the area thoroughly with **appropriate sanitizing product**.
4. Wipe the area to distribute the sanitizer evenly using single-service, disposable paper towels.
5. Discard paper towels in a plastic-lined container.
6. Allow surface to air dry.
7. Wash your hands.

If you have questions about cleaning and sanitizing procedures, ask your childcare health consultant or school nurse for specific instructions.

DIAPERING

In order to prevent disease, proper procedures must be observed before, during, and after diapering a child.

1. **Collect all necessary supplies.**
2. **Handle child and clothing to prevent contamination.**

3. **Remove soiled diaper and clean child.** (Remember children cannot be left unattended while on the diapering table.)
4. **Place a clean diaper on the child and then put the outer clothing back on the child.**
5. **The caregiver must wash their hands and the child's hands with soap and warm water immediately.**
6. **Contaminated areas such as the diapering surface must then be washed with soapy water.**

7. **Remove soap residue with clear water.**
8. **Sanitize the contaminated areas with an approved sanitizing solution.***
9. **The caregiver must thoroughly wash their hands before returning to other duties.**

*One approved sanitizing solution is a chlorine solution of approximately one(1) teaspoon of unscented household bleach to one gallon of water or one-fourth (1/4) teaspoon to a quart of water. Other sanitizers may be used, however, they must be approved by the BERL.

BUREAU OF ENVIRONMENTAL REGULATION & LICENSURE

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Changing Pull-ups/Toilet Learning Procedure

*Note: This procedure is recommended for wet pull-ups only. For soiled pull-ups follow diapering procedure.

Preparation	**Wash hands .....**	Thoroughly with soap and warm running water for 15-20 seconds using posted procedure.
	Assemble supplies (within reach)	1. Clean disposable pull-up*. 2. Disposable wipes or paper towels. 3. Gloves, when used.
	Put gloves on	See gloving recommendations per program policies.
Dirty Phase	**Stand child by the toilet .....**	1. Provide privacy. 2. Assist child to remove clothing, if necessary. Put soiled clothing in a plastic bag.
	Teach child to remove pull-up	Tear sides of pull-up to remove. Place pull-up directly into plastic bag, tie and place in a plastic lined waste container.
	Teach child to wipe bottom	1. Teach child to wipe from front to back (once per wipe). Use the child's own disposable wipes. 2. Place wipes in waste container.
	Remove gloves	Place gloves in waste container.
Toileting	**Encourage Independent Toileting ....**	1. Allow child to sit on toilet. 2. Praise for toileting attempt/success. 3. Allow child to wipe bottom. 4. Encourage child to flush toilet.
Clean Phase	**Teach child to put on pull-up and clothes.**	
	Wash child's hands	Thoroughly with soap and warm running water for 15-20 seconds using posted procedure.
	Return child to activity	Staff returns to diapering area.
Clean Up	**Clean and sanitize .....**	Any soiled areas including cleaning and sanitizing toilet seat.
	Wash hands	Thoroughly with soap and warm running water for 15-20 seconds using posted procedure**.**
Communicate	**Acknowledge Toilet Learning Process**	Praise child for all attempts/successes in toilet learning process.
	Record	Toileting results.
	Report	Toileting results and any concerns to parents (rash, unusual color, odor, frequency, or consistency of stool).

* A disposable diaper may be substituted for a pull-up if necessary.

FOOD SAFETY IN CHILDCARE SETTINGS AND SCHOOLS

Foodborne illness can be prevented by following guidelines for handwashing, excluding ill foodservice workers, and for storing, handling, preparing, and cooking food and beverages in the childcare and school settings.

Handwashing

Wash hands thoroughly with soap and warm running water after using the toilet, changing diapers, and before preparing or eating food. **Thorough handwashing is the best way to prevent the spread of communicable diseases.** Alcohol-based hand rubs are not acceptable in the food service area. (See pgs 57-60 for more information on handwashing.)

Exclusion

- People should not prepare or serve food with the following:
  - vomiting and/or diarrhea or until 72 hours after the last episode of vomiting or diarrhea.
  - until treated with antibiotics or have had one or more negative stool tests (depends on specific bacteria).
  - skin lesions on exposed areas (face, hands, fingers) that cannot be covered. Wear finger cots or disposable gloves over covered sores on the fingers or hands.
  - when wearing fingernail polish.

Food and beverage storage, handling, preparation, and cooking guidelines

- Storage guidelines/rationale
  - **Store all potentially hazardous foods (eggs, milk or milk products, meat, poultry, fish, etc.) at 41° F or below. Childcare centers/schools that receive hot food entrees must hold potentially hazardous foods at 135° F or above and check food temperature with a clean, calibrated food thermometer before serving.** Bacteria may grow or produce toxins if food is kept at temperatures that are not hot or cold enough. These bacteria can cause illness if the food is eaten. Store lunches that contain potentially hazardous foods in the refrigerator. Use coolers with ice packs for keeping lunches cold on field trips.

  - **Store raw meat and poultry products on the bottom shelf of the refrigerator.** This will help to prevent the meat and poultry juices from dripping onto other foods.

  - **Keep food products away from cleaning products, medicine, and animal food.** Never refer to medicine as "candy" as this may encourage children to eat more medicine than they should. Some cleaning products can be mistaken for foods. For example, cleansers may look like powdered sugar and pine cleaners may look like apple juice. Cleaning products must be properly labeled.

- Preparation guidelines/rationale
  - **Prepare food in an approved preparation area. Preferably, one sink should be dedicated for food preparation and one for handwashing.** This area has equipment, surfaces, and utensils that are durable, easily cleaned, and safe for food preparation.

  - **Rinse fresh produce in a clean, sanitized sink before preparing.** This helps remove pesticides or trace amounts of soil and stool, which might contain bacteria or viruses that may be on the produce.

- **Clean all surfaces before beginning food preparation.** Unclean surfaces can harbor bacteria and contribute to cross contamination. Cross contamination occurs when a contaminated product or its juices contacts other products and contaminates them.

- **Use an approved sanitizer for food contact surfaces. Test kits can be used to check the concentration.** High concentration of sanitizer can leave high residuals on the food contact surface, which can contaminate food, make people ill, and damage surfaces or equipment.

- **Label all sanitizer spray bottles. Check sanitizer solution daily using a test kit. Make a fresh solution if the concentration is below acceptable levels.** This will prevent accidental misuse of sanitizer spray bottles.

- **Always wash hands, cutting boards, utensils, and dishes between different foods. Use separate cutting boards for raw meats and produce.** Cross contamination occurs when a contaminated product or its juices, (e.g., raw meat or poultry) touches other products (e.g., fresh fruit, vegetables, cooked foods) and contaminates them.

- **Thaw foods properly: 1) on a tray on the bottom shelf of the refrigerator, 2) under continuously running cold (70° F or less) water in continuously draining sink, or 3) in the microwave, only if the food is cooked immediately afterwards. DO NOT leave food out on the kitchen counter to thaw.** Thawing food on a kitchen counter can allow bacteria to grow in the food.

- **DO NOT prepare infant formula in the handwashing sink area in the infant room.** Use water from kitchen prep sink to mix infant formula or use bottled water.

- Cooking guidelines/rationale
  - **Use a trained, certified food handler to prepare food.** Staff knowledgeable about safe food handling practices can prevent foodborne illnesses. Health departments may require certifications for commercial facilities.

  - **Rapidly heat potentially hazardous food. Take food temperatures to make sure food has reached appropriate temperature. Check with your local public health agency for appropriate temperatures.** Rapid cooking kills bacteria that may cause illness.

  - **Cook raw hamburger thoroughly. Use a food thermometer to achieve an internal temperature of 155° F for 15 seconds.** Raw or partially cooked ground beef can be contaminated with *E. coli* O157:H7. Large quantities of hamburger may "look" cooked, but may contain "pockets" of partially cooked meat.

  - **Once cooked, take food temperatures to make sure food has reached appropriate temperature. Check with your local public health agency for appropriate temperatures.** Monitoring temperatures can ensure that all potentially hazardous foods have not been in the "danger zone" (41° - 135° F) too long, which allows for bacterial growth.

  - **DO NOT put cooked food in the same container or on the same unwashed container, platter, or cutting board that was used for uncooked meat or poultry.** The container or platter could contain harmful bacteria that could contaminate the cooked food.

  - **DO NOT serve unpasteurized milk, cheese, or apple juice.** These items may be the source of foodborne illnesses caused by pathogens such as *Campylobacter*, *Salmonella*, *E. coli* O157:H7, and *Listeria*.

Other Considerations

- **DO NOT let children serve or prepare food in the childcare setting. Cooking projects in the childcare and school settings should be treated as a science project. Alternatively, have the children make an individual-sized portion for themselves.** Children could contaminate food and make other children/staff ill if they handle food during these types of projects. Monitor the children's handwashing and supervise children so they do not eat the food.

- **If children bring food or treats to share, the food or treats must be purchased from a licensed store or bakery. DO NOT allow food/treats to be brought from home.** Children and parents may not understand food safety principles as well as staff at licensed food establishments. Licensed commercial kitchens are more controlled environments for preparation than private homes.

- **DO NOT wash bottles, nipples, or dishes in the handwashing sink area in the infant room.** Any items that need to be cleaned and/or sanitized must be sent to the kitchen.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

PETS IN CHILDCARE SETTINGS AND SCHOOLS

The benefits of pet ownership outweigh the risks, but precautions are encouraged. If you choose to have an animal in the childcare or school setting, follow the listed guidelines to decrease the risk of spreading disease. Check with your local health department or childcare licensing agency before bringing any pets to your childcare setting or school because there may be state and/or local regulations that must be followed.

General considerations

- Inform parents/guardians of the benefits and potential risks associated with animals in the classroom.
- Consult with parents/guardians to determine special considerations needed for children with weakened immune systems and who have allergies or asthma.
- Notify parents/guardians of any child whose skin is broken by an animal bite or scratch.
- Supervise children when handling animals.

Types of pets allowed in childcare and school settings include:

- guinea pigs
- gerbils
- domestic-bred rats
- rabbits
- dogs
- birds (must be free of *Chlamydophila psittaci*)
- fish
- domestic-bred mice
- hamsters
- cats

- **Animals not recommended in school settings and childcare settings include:**

  - ferrets
  - reptiles (e.g. lizards, turtles, snakes, and iguanas)
  - poultry (especially baby chicks, and ducklings)
  - inherently dangerous animals (e.g., lions, tigers, cougars, and bears)
  - nonhuman primates (e.g., monkeys and apes)
  - mammals at higher risk of transmitting rabies (e.g., bats, raccoons, skunks, and foxes)
  - aggressive or unpredictable animals, wild or domestic
  - stray animals with unknown health and vaccination history
  - venomous or toxin-producing spiders, insects, reptiles, and amphibians

  These animals are not allowed or recommended because:
  - Reptiles and poultry can carry *Salmonella* bacteria and can be a source of infection to infants, children, and staff.
  - Wild animals can be a source of infectious bacteria, parasites, viruses, and fungi. Biting incidents from animals are a concern especially from wild animals.
  - In some municipalities, ordinances restrict wild/exotic animals and/or farm animals.

Where to keep pets

- Keep pets in designated areas only. They should be separated from food preparation, food storage, or eating areas.
- Keep pets in clean living quarters. Cages should be covered, sturdy, and easy to clean, and they should sit on surfaces that are solid and easy to clean.

Care and maintenance

- Develop and follow written procedures concerning the care and maintenance of pets with the advice of your veterinarian.
- Ensure that pets are appropriately vaccinated, free of parasites (this includes ticks, fleas, and intestinal worms), and fungal skin infections (e.g., ringworm).
- Keep animals that are in good health and show no evidence of disease. Healthy animals make better pets.
  - Feed pets appropriate commercial foods on a regular basis and keep fresh water available at all times.
  - Keep bedding dry and clean.
  - Clean cages daily. School or childcare staff should do this – NOT children.
  - Use a janitorial area to wash and clean cages or aquariums. DO NOT use the kitchen or food service sinks.
  - Wash hands thoroughly after contact with animals and their cages.
- Minimize contact with urine and stool. Urine and stool not confined to an enclosed cage should be cleaned up immediately. Dispose of this waste in a covered container not accessible to children.
- WASH HANDS IMMEDIATELY after handling animals and their stool/urine and their environments.
- Check with local authorities (police) for regulations in your jurisdiction for appropriate disposal of a pet when it dies.
- Avoid changing cat litter boxes, handling animals, and contacting their environments if you are pregnant.
- Cover children's sandboxes when not in use.

Other considerations to reduce disease risks to children at petting zoos and farms

Germs can occur naturally in the gut of certain animals without causing the animal any harm. These germs are then shed into the environment in the stool of these animals. When people have contact with animals or their living areas, their hands can become contaminated. Disease spread can occur when dirty (unwashed, contaminated) hands go into the mouth or are used to eat food.

- DO NOT allow children under 5 years to have contact with farm animals. These children are at greater risk for developing severe illness because their immune systems may not yet be fully developed.
- Educate childcare and school staff about the potential for transmission of enteric (intestinal) pathogens from farm animals to humans and strategies to prevent spread. Outbreaks of *E. coli* O157:H7, salmonellosis, and cryptosporidiosis have been attributed to children visiting farms and petting zoos. Certain farm animals, including calves, young poultry, and ill animals, pose a greater risk for spreading enteric infections to humans.
- Apply childcare or school policies and procedures to animals brought in for show and tell, entertainment, or educational programs.

Prevention and control

- **Wash hands to stop the spread of disease**. Immediately after contact with animals, children and adults should wash their hands. Running water, soap, and disposable towels should be available. Adults should closely monitor handwashing of all children. Wash hands after touching animals or their environments, on leaving the area in which the animals are kept, and before eating. Emphasize these recommendations with staff training and posted signs. Communal wash basins are not adequate

Prevention and control (Continued)

handwashing facilities. Where running water is not available, waterless hand sanitizers provide some protection.

- Ensure that at farms or petting zoos:
  - Two separate areas exist, one in which contact with the animals occurs and one in which animals are not allowed.
  - Food and beverages should be prepared, served, and consumed only in animal-free areas.
  - Toys and pacifiers should not be allowed in the animal contact areas.
  - Animal contact should occur only under close adult supervision.
- DO NOT consume unpasteurized milk, apple cider, or juices.
- DO NOT eat unwashed fruits and vegetables.
- Consider the type of animals and the facilities before visiting an educational farm or petting zoo.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

SWIMMING AND WADING POOLS

Many providers incorporate outdoor water play as a popular summer activity for children in care. Sprinklers, water guns, and swimming pools are often used to beat the Missouri heat. However, certain precautions must be taken with these types of play to ensure infectious diseases are not transmitted.

Missouri Rules for Group Homes and Child Care Centers require that swimming and wading pools used by children are constructed, maintained and used in a manner which safeguards the lives and health of children. All swimming pools must be filtered, treated, tested, and water quality records maintained:

1. Continuous filtration and chemical disinfection is required.
2. Water clarity must be maintained.
3. A test kit for the chemical disinfectant is required.
4. Water quality records must be maintained daily and should include date/time, disinfectant level, pH, and temperature.
5. A written fecal accident response plan should be in place.

Unlike swimming pools that are treated to prevent disease transmission, wading pools are typically filled with tap water and may or may not be emptied and disinfected on a daily basis. Thus, many enteric pathogens (germs from the stool) can be easily spread by contaminated wading pool water that children may accidentally swallow while playing in the pool. Spread of these infections can occur even under the care of the most diligent and thoughtful childcare providers, since these infections can be spread even when the child only has mild symptoms. For these reasons, wading pools are not encouraged for childcare settings.

Children who are ill with vomiting or diarrhea should not play in a swimming or wading pool. A child known to be infected with enteric pathogens such as *Cryptosporidium* or *E. coli* O157:H7 should not use the wading pool. (See fact sheets for cryptosporidiosis, *E. coli* O157:H7, giardiasis, and shigellosis.) There are many diseases in which children should be kept out of pools for a specified time period even after the diarrhea has stopped.

In addition, the U.S. Consumer Product Safety Commission warns that young children can drown in small amounts of water, as little as two inches deep. Submersion incidents involving children usually happen in familiar surroundings and can happen quickly (even in the time it takes to answer the phone). In a comprehensive study of drowning and submersion incidents involving children under 5 years old, 77% of the victims had been missing from sight for 5 minutes or less. The Commission notes that toddlers, in particular, often do something unexpected because their capabilities change daily. Child drowning is a silent death, since there is no splashing to alert anyone that the child is in trouble.

As an alternative to wading pools, sprinklers provide water play opportunities that are not potential hazards for drowning or disease transmission. Water toys such as water guns should be washed, rinsed, sanitized, and air dried after each use.

The Centers for Disease Control and Prevention's (CDC) Healthy Swimming program offers information and resources to raise awareness about recreational water illnesses and how to prevent them by practicing "Healthy Swimming" behaviors. Additional information is available at http://www.cdc.gov/healthywater/swimming/.

Prepared by Missouri Department of Health and Senior Services

July 2011

COVERING YOUR COUGH

Why should I cover my cough?

- Serious respiratory illnesses like influenza, respiratory syncytial virus (RSV), and Severe Acute Respiratory Syndrome (SARS) are spread by coughing or sneezing.
- These viruses can be spread to others when the ill person coughs or sneezes into their hands and then contaminates surfaces and objects.
- These illnesses spread easily in crowded places where people are in close contact.

How do I stop the spread of germs if I am sick?

- Cover your nose and mouth with a tissue every time you cough or sneeze.
  Throw the used tissue in a waste basket.
- Sneeze or cough into your sleeve or the crook of your elbow if you do not have a tissue.
- Clean your hands with soap and water or an alcohol-based hand rub immediately after coughing or sneezing.
- Stay home when you are sick.
- Do not share eating utensils, drinking glasses, towels, or other personal items.
- Clean and disinfect surfaces and objects that could be contaminated by the ill person.

How can I stay healthy?

- Clean your hands often with soap and water or an alcohol-based hand rub.
- Avoid touching your eyes, nose, or mouth.
- Avoid close contact with people who are sick, if possible.
- Get vaccinated! Influenza (flu), pneumococcal (pneumonia), and pertussis (whooping cough) vaccines can prevent some serious respiratory illnesses.

When you are at the clinic or hospital:

- Cover your cough or sneeze with a tissue and dispose of the used tissue in the waste basket.
- Clean your hands with soap and water or an alcohol-based hand rub.
- Wear a mask to protect others if you are asked.

Stop the spread of germs that make you and others sick!

Cover your Cough

Cover your mouth and nose with a tissue when you cough or sneeze

or

cough or sneeze into your upper sleeve, not your hands.

Put your used tissue in the waste basket.

Clean your Hands after coughing or sneezing

Wash hands with soap and warm water

or

clean with alcohol-based hand cleaner.

Missouri Department of Health and Senior Services
866-628-9891
health.mo.gov

Developed by Minnesota Department of Health

This health information is part of Missouri's pandemic influenza educational efforts.

#1031

GLOVING

The following information is provided as general recommendations. Always follow the glove use policies established by your facility.

General information

- Gloves are NOT a substitute for handwashing.
- Throw away single-use gloves after each use.
- Hands must be washed after removing gloves.
- Use non-latex gloves when touching people or food whenever possible.
- Gloves should fit well.
- Gloves should be durable, so they do not rip or tear during use.

Types and use of gloves

- **Medical glove (e.g., surgical glove, examination glove)**
  - Used for exposure-related tasks where there is contact with blood and body fluids. For example, when handling blood (e.g., nosebleeds, cuts) or items, surfaces, or clothing soiled by blood or bloody body fluids. Follow procedures outlined in the childcare or school's Bloodborne Pathogen Exposure Plan.
  - Used when changing the diaper of a child with diarrhea or with an infection that is spread through stool, or if the child has open areas on the skin.
  - Worn by staff if they have open cuts, sores, or cracked skin.
  - Must be approved by the FDA.

- **Utility gloves**
  - Used for cleaning and disinfecting bathrooms, diapering areas, or any areas contaminated with stool, vomit, or urine.
  - After use, follow cleaning and disinfecting procedures.

- **Food handling gloves**
  - May be recommended for handling ready-to-eat foods in some jurisdictions. Check with your local agency's environmental health agency staff.

HANDWASHING

General information

Hands are warm, moist parts of the body that come into frequent contact with germs that cause communicable illnesses. Young children have not yet learned healthy personal habits. They suck their fingers and/or thumbs, put things in their mouths, and rub their eyes. These habits can spread disease, but good handwashing can help reduce infection due to these habits. Caregivers who teach and model good handwashing techniques can reduce illness in childcare settings and schools. **Gloves are not a substitute for handwashing.**

Handwashing is the single most effective way to prevent the spread of infections.
Included in this section are instructions on WHEN TO wash hands (see pg 57) and pictures to demonstrate HOW TO do the correct handwashing procedure (see pg 60).

Childcare and school staff information

- Learn why, how, and when to correctly wash hands and children's hands.
- Follow a procedure that ensures safety for the infant or child.
- Teach young children to wash hands and supervise them as they do.
- Encourage children to wash hands.

Recommendations for hand hygiene products

- **Liquid soap**
  - **Recommended** in childcare and schools since used bar soap can harbor bacteria. Regular liquid soap is effective in removing soil and germs.
  - Soap and water are necessary if hands are visibly soiled.
  - When using liquid soap dispensers, avoid touching the tip of the squirt spout with hands.
  - If the liquid soap container is refillable, the container and pump should be emptied, cleaned, and dried completely before being refilled.

- **Antimicrobial soaps**
  - Are **not recommended** by the American Medical Association and the CDC.
  - Many scientists are concerned that use of these soaps could lead to strains of resistant bacteria. There is no need to use these soaps, which may actually do more harm than good.
  - Must be left on hands for about two minutes in order to have any effect on bacteria.

- **Alcohol-based hand rubs**
  - 60% to 90% alcohol (usually 70%). Read the label and follow manufacturer's instructions.
  - Advantages of alcohol-based hand rubs are:
    - ♦ Requires less time.
    - ♦ Act quickly to kill germs on hands.
    - ♦ More accessible than sinks.
    - ♦ Reduce bacterial counts on hands.
    - ♦ Do not promote bacterial resistance.
    - ♦ Less irritating to skin than soap and water (product contains moisturizers).

- Disadvantages of alcohol-based hand rubs are:
  - **Should not** be used on visibly soiled hands since they are ineffective in the presence of dirt, soil, or food.

Any product should be safely stored out of reach of children.

- **Procedure for using alcohol-based hand rubs**

- Use enough alcohol-based hand rub to cover all surfaces of the hands and fingers.
  1. Apply alcohol-based hand rub to palm of one hand.
  2. Rub hands together covering all surfaces of hands and fingers.
  3. Rub until hand rub is absorbed.

- **When soap and running water are not available**

- When soap and running water are not readily available, for example, on a field trip, an alcohol-based hand rub can be used. The alcohol-based hand rub must be applied vigorously over all hand surfaces. If hands were visibly soiled, **hands must be washed with soap and warm running water as soon as it is available, because the alcohol-based hand rubs are not effective in the presence of dirt and soil.**
- DO NOT use a common water basin. The water can become contaminated very quickly.

Towels

- Use single-use paper towels to dry hands or use hand dryers.
- DO NOT use multi-use towels such as hand towels, kitchen towels, or dish cloths.

Fingernail care for staff and children

- Keep fingernails short and clean.
- Staff should moisten cuticles to avoid hangnails.
- Clear fingernail polish that is well maintained may be worn; avoid colored nail polish since it is difficult to see dirt under nails.
- Use fingernail brushes to remove dirt and stool from under nails. Use the nailbrush after diapering or assisting with the toilet activities, before and after food preparation, and whenever nails are soiled.
- Artificial nails are **highly discouraged** from use since they are known to harbor germs even with good handwashing techniques. They can break off into food and have been implicated in disease outbreaks in hospital nurseries. Check with the local licensing agency regarding any food codes that may restrict staff from wearing artificial nails when handling and preparing food.

Ways for staff to keep hands healthy

- Cover open cuts and abrasions less than 24 hours old with a dressing (e.g., bandage).
- Use warm water, not extremely hot or cold and just enough soap to get a good lather.
- Rinse and dry hands completely.
- Use the soap product that is least drying to hands.
- Use hand lotion regularly to keep skin moist. Use products with a squirt spout so hands do not have contact with the container.
- Wear gloves outside in the cold weather.
- Wear utility gloves for direct hand contact with harsh cleaners or chemicals.
- Wear work gloves when doing yard work, gardening, etc.

PLEASE POST

HANDWASHING

The single most effective thing that can be done to prevent the spread of disease is to correctly wash your hands thoroughly and often.

Both STAFF and CHILDREN WASH:

- When **arriving**.
- Before and after eating, before preparing or serving **food,** or setting the table.
- Before and after preparing or giving **medication**.
- After using the **toilet,** before and after **diaper** change, or after assisting a child with toilet use.
- After handling items soiled with **body fluids or wastes** (blood, vomit, stool, urine, drool, or eye drainage).
- After coughing, sneezing, or blowing your **nose**.
- After playing with or caring for **pets or other animals**.
- After playing **outside**.
- Before and after using water tables or **moist items** such as clay.
- Whenever hands **look, feel, or smell unclean**.
- Before going home.

HANDWASHING

In order to prevent transmission of disease, Caregivers and Children need to wash their hands often, using good techniques. They need to wash their hands after going to the bathroom, after the diapering process, after helping a child with toileting, before preparing food, after handling raw meat, before a change of activities, before eating, after playing out of doors, and after nose blowing.

GOOD TECHNIQUES ARE SIMPLE:

1. **Wet the hands thoroughly.**

2. **Apply soap and work up a good lather. (NOTE: Wash between the fingers, under the nails, and up the wrists. The hands should be washed thoroughly for at least twenty seconds.)**

3. **For cleaning under the nails, a nailbrush is recommended.**

***Nails should be kept short especially if the caregiver works in areas where diapering and/or potty training occurs.**

***Rings, except smooth bands, should not be worn while the caregiver is working. If rings are worn, the rings need to be cleaned with a brush.**

4. **Hands must be rinsed thoroughly.**

5. **After drying their hands, children and caregivers need to turn off the faucets with a paper towel.**

6. **Caregivers should apply lotion to their hands in order to keep them smooth. This will help prevent cracks and crevices, where bacteria and fungus could grow.**

Bureau of Environmental Health Services

INFECTION CONTROL GUIDELINES

Section 1 through Section 3 of this manual contains information on ways to reduce the spread of germs in childcare settings and schools. Key concepts of prevention and control:

- **Handwashing (see pgs 57-60)** – the single most effective way to prevent the spread of germs.
- **Covering your cough (see pgs 54-55)** – an effective way to reduce the spread of germs when coughing and sneezing.
- **Appropriate gloving (see pg 56)** – an effective way to help prevent the spread of germs. Gloves are not a substitute for handwashing. See standard precautions below.
- **Proper diapering procedures (see pgs 42-46)** – to reduce the spread of germs found in stool to hands, objects, and the environment.
- **Cleaning, sanitizing, and disinfection (see pgs 35-41)** – to reduce the presence of germs in the environment.
- **Food safety (see pgs 47-49)** – to reduce the spread of germs from improperly cooked and handled food.
- **Exclusion guidelines (see pgs 1-17)** – to reduce the chance of spreading germs from ill people to others.
- **Immunizations (see pg 221)** – for list of resources for age appropriate immunizations and childcare and school requirements.
- **Avoid sharing personal items** – encourage children, students, and staff to **NOT share items** such as water bottles, food, utensils, beverages, straws, toothbrushes, lip gloss, lip balm, lipstick, towels, head gear, combs, brushes, etc. to prevent the spread of germs to others.
- **Promote self-care** – encourage staff and children to perform their own first aid, when age appropriate.
- **Standard Precautions** are used in many settings where there is a possibility of exposure to blood and body fluids (e.g., urine, stool, secretions from the nose and mouth, drainage from sores or eyes). One aspect of standard precautions is the use of barriers. The purpose of using barriers is to reduce the spread of germs to staff and children from known/unknown sources of infections and prevent a person with open cuts, sores, or cracked skin (non-intact skin) and their eyes, nose, or mouth (mucous membranes) from having contact with another person's blood or body fluids.

  Examples of barriers that might be used for childcare and school settings include:
  - Gloves (preferably non-latex) when hands are likely to be soiled with blood or body fluids.
  - CPR (cardiopulmonary resuscitation) barriers – CPR mask or shield.
  - A bandage to cover a wound on a child or staff member to absorb or contain drainage from their wound. This prevents the escape of bodily fluids rather than protecting from fluids that have escaped.

  Other examples that most likely would not be needed in the childcare or school setting are:

  - Eye protection and face mask when the face is likely to be splattered with another's blood or body fluid.
  - Gowns when clothing likely to be splattered with another's blood or body fluid.

Proper use of safety needle/sharp devices and proper disposal of used needles and sharps are also part of standard precautions.

INFECTION CONTROL RECOMMENDATIONS FOR SCHOOL ATHLETIC PROGRAMS

General information

Students participating in school athletic programs may have increased risk of infection because of skin-to-skin contact or through the sharing of water bottles, athletic equipment, and towels. To minimize the risk of infection:

- Exclude athletes with non-intact skin (e.g., boils, sores, cuts, etc.) from competition or practice until evaluated by a healthcare provider.
- Exclude athletes with head lice from activities where there is head-to-head contact or headgear is used until they are treated.
- Ensure that all athletes have their own water bottles and discourage the sharing of water bottles.
- Provide clean towels for athletes during practice and competition to minimize contact with the saliva and secretions of others.
- Encourage all persons to wear shower shoes, sandals, or flip-flops in the shower or the locker room to prevent the spread of fungal infections (athlete's foot) and plantar warts.
- Inform athletes that items such as toothbrushes, razors, and nail clippers might be contaminated with blood and should not be shared.
- Cover breaks in skin with a water-proof bandage. Change bandage if it gets wet.
- Have athletes shower after every practice/game. DO NOT share towels.

Possible blood exposure

Participation in sports may result in injuries in which bleeding occurs. The following recommendations have been made for sports in which direct body contact occurs or in which an athlete's blood or other body fluids visibly tinged with blood may contaminate the skin or mucous membranes of other participants or staff:

- Have athletes cover existing cuts, abrasions, wounds, or other areas of broken skin with an occlusive dressing (one that covers the wound and contains drainage) before and during practice and/or competition. Caregivers should cover their own non-intact skin to prevent spread of infection to or from an injured athlete.
- Wear disposable gloves to avoid contact with blood or other body fluids visibly tinged with blood and any object such as equipment, bandages, or uniforms contaminated with these fluids. Hands should be thoroughly cleaned with soap and water or an alcohol-based hand rub as soon as possible after gloves are removed.
- Remove athletes with active bleeding from competition as soon as possible and until the bleeding has stopped. Wounds should be cleaned with soap and water. Skin antiseptics may be used if soap and water are not available. Wounds must be covered with an occlusive dressing that remains intact during further play before athletes return to competition.

- Advise athletes to report injuries and wounds as soon as possible, including those that occur before or during competition.

- Clean and cover minor cuts or abrasions that are not bleeding or draining during scheduled breaks; this does not require interruption of play. However, if an athlete's equipment or uniform fabric is wet with blood, the uniform should be removed and replaced and the equipment should be cleaned and disinfected or replaced.

- Clean equipment and playing areas contaminated with blood until all visible blood is gone. Then disinfect with an EPA-approved disinfectant* (viricidal, bactericidal, fungicidal) OR make a 10% bleach solution (e.g. 1 part bleach (5% chlorine) plus 9 parts water which is 100 ml bleach plus 900 ml water or ¼ cup of bleach plus 2 ¼ cups of water). Bleach solution deteriorates rapidly and should be made fresh daily. If using the bleach solution, apply to the surface or area. DO NOT rinse. Air dry. The disinfected area should be in contact with the bleach solution for at least 1 minute. A 10% bleach solution is corrosive to some metals and is caustic to the skin.

  Note: A 1:10 solution is the OHSA standard for cleaning and disinfecting blood spills. For other disinfection, a more dilute solution (e.g. 1:50 – 1:100 or ½ – ¼ cup per gallon) may be used.

  * EPA-approved disinfectants must be used according to the manufacturer recommendations.

- Have access to a well-equipped first aid kit during any adult-supervised athletic event. This includes personal protective equipment for first aid responders.

- DO NOT delay emergency care because gloves or other protective equipment are not available. If the caregiver does not have the appropriate protective equipment, a towel may be used to cover the wound until an off-the-field location is reached where gloves can be used during the medical examination and treatment.

- Follow current CPR guidelines.

- Train equipment handlers, laundry personnel, and janitorial staff in proper procedures for handling washable or disposable materials contaminated with blood. Staff should always wear gloves when handling items contaminated with blood.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or your local health department.

MISUSE OF ANTIBIOTICS

Antibiotic misuse has resulted in antibiotic-resistant bacteria that can cause severe infections and even result in death. Everyone (childcare staff, teachers, school nurses, parents/guardians, healthcare providers, and the community) has a role in preventing antibiotic misuse.

Antibiotics and What Do They Do

- **What kinds of germs cause infections?**
  Viruses and bacteria are two kinds of germs that can cause infections and make people sick.

- **What are antibiotics?**
  Antibiotics are powerful medicines that are mostly used to treat infections caused by bacteria. These are known as anti-bacterial drugs. These drugs cannot fight viruses; there is a special class of medicines called antivirals that specifically fight infections caused by viruses. There are many classes of antibiotics, each designed to be effective against specific types of bacteria. When an antibiotic is needed to fight a bacterial infection, the correct antibiotic is needed to kill the disease-producing bacteria.

- **When are antibiotics needed?**
  Anti-bacterial drugs are needed when your child has an infection caused by bacteria. These drugs cannot fight infections caused by viruses.

- **How can I tell if an illness is caused by a virus or bacteria?**
  The symptoms of viral infections are often the same as those caused by bacterial infections. Sometimes diagnostic tests are needed, but it is important that your doctor or healthcare provider decide if a virus or bacteria is causing the infection.

- **If an infection is caused by a virus, and an antibiotic will not work, what can be done to relieve the symptoms?**
  You need lots of extra rest, plenty of fluids (water and juice), and healthy foods. Some over-the-counter medications, like acetaminophen (follow package directions or your healthcare providers' instructions for dosage) or saline nose drops may help while your body is fighting the virus. A cool mist vaporizer may help too. Viral infections (like chest colds, acute bronchitis, and most sore throats) resolve on their own but symptoms can last several days or as long as a couple weeks.

When Antibiotics Are Needed

- **Are antibiotics needed to treat a runny nose with green or yellow drainage?**
  No. An antibiotic will not help. A runny nose is a common symptom of a chest cold or acute bronchitis. A runny nose may begin with clear drainage then turn to yellow or green drainage. Color changes in nasal mucous are a good sign that your body is fighting the virus. If a runny nose is not getting better after 10 to 14 days or if other symptoms develop, call your healthcare provider.

- **Are antibiotics needed for a sore throat?**
  Not usually. Most sore throats are caused by a virus and antibiotics will not help. Only throat infections caused by Group A strep bacteria need an antibiotic. Your healthcare provider can do a lab test. If Group A strep bacteria is present, they can prescribe an antibiotic.

- **Does acute bronchitis need antibiotics?**
  No. Most cases of acute bronchitis (another name for a chest cold) are caused by viruses, and antibiotics will not help. Children with chronic lung disease are more susceptible to bacterial infections and sometimes they need antibiotics.

- **Does a sinus infection need antibiotics?**
  Sometimes. Antibiotics are needed for sinus infections caused by bacteria; antibiotics are not needed for sinus infections caused by viruses. Check with your healthcare provider if cold symptoms last longer than 10 to 14 days without getting better or pain develops in your sinus area.

- **Do ear infections need an antibiotic?**
  Sometimes. Ear infections can be caused by bacteria or viruses, so not all ear infections need antibiotics. Your healthcare provider will need to assess your symptoms and determine whether antibiotics are needed.

Antibiotic Resistance

- **What are antibiotic resistant bacteria?**
  Antibiotic resistant bacteria are germs that are not killed by commonly used antibiotics. These bacteria are very difficult to cure and sometimes very powerful antibiotics are needed to treat infections caused by these bacteria.

- **How do bacteria become resistant?**
  Each time we take antibiotics, sensitive bacteria are killed but resistant ones are left to grow and multiply. When antibiotics are used excessively, used for infections not caused by bacteria (for instance, those caused by viruses), or are not are not taken as prescribed (such as not finishing the whole prescription or saving part of a prescription for a future infection), resistant bacteria grow. Under these circumstances, bacteria learn how to "out smart" antibiotics.

- **Is antibiotic resistance a problem?**
  Yes. Antibiotic resistance is a growing problem throughout the United States – including Missouri. The Missouri Department of Health and Senior Services has seen an increase in antibiotic resistance among bacteria that commonly cause disease in children. An increasing number of these bacteria are resistant to more than one type of antibiotic, making these infections harder to treat.

- **How do bacteria become resistant to certain antibiotics?**
  There are three different ways that bacteria become resistant to antibiotics:
  - Taking antibiotics can increase your chance of developing antibiotic-resistant bacteria. Antibiotics kill the disease-causing bacteria, but they also kill some good bacteria. Some bacteria that have been exposed to the antibiotic have developed ways to fight them and survive. These bacteria become stronger, can multiply, and begin to cause symptoms. These resistant bacteria not only can cause you to be ill, but you can spread these resistant bacteria to others and they too may become ill.
  - Antibiotic resistant-infections can be spread from people or objects that are contaminated with resistant bacteria. These bacteria can enter your body when you touch these objects and then touch your mouth or nose or eat food with your hands. The best way to prevent spreading any germs is to wash your hands!
  - Antibiotic-resistant bacteria can also out-smart the antibiotics designed to kill them. This happens when the bacteria inside your body share, exchange, or copy genes that allow them to survive the antibiotic.

- **Are antibacterial products (e.g. antibacterial soaps) better than ordinary products?**
  At home and in childcare and school settings, antibacterial (or antimicrobial) products are no better that ordinary soap for preventing infections.

- **Why should I be concerned about antibiotic resistance?**
  Improper use of antibiotics can cause more frequent and possibly more severe illness for you and your family. Antibiotic misuse also is bad for your community by increasing the number of bacteria that are hard for healthcare providers to treat.

- **What if I get sick with an antibiotic-resistant infection?**
  Antibiotic-resistant bacterial infections require stronger antibiotics. These medications often must be given through a vein and may require a hospital stay. They may also cause more severe side effects. Antibiotic-resistant infections of the blood or brain can be life-threatening.

- **How Can I Prevent Antibiotic-Resistant Infections?**
  - Use antibiotics only when your healthcare provider prescribes them – and always take all the medicine that is prescribed.
  - Never ask for antibiotics for a viral infection such as a cold, acute bronchitis, cough, or green/yellow runny nose.
  - Never let anyone take leftover antibiotics or a prescription that was used by someone else in your household.
  - Handwashing helps prevent the spread of infections! Wash your hands thoroughly – and teach your children to wash their hands too – using soap and running water for 20 seconds after blowing your nose, after using the toilet and after changing diapers, and before preparing food or eating.

Appropriate Use of Antibiotics

- **Are antibiotics safe?**
  Yes. Antibiotics taken as prescribed are generally safe and effective at combating bacterial infections. Some people may be allergic to certain antibiotics, but can usually take other types of antibiotics if needed. All medications can have side effects, so be sure to ask your healthcare provider about potential side effects and how to manage them.

- **When should I take antibiotics?**
  You should take antibiotics – the complete prescription – when your healthcare provider prescribes them for a bacterial infection. Never save antibiotics for a later use.

- **When I'm feeling better can I stop taking the antibiotic?**
  No, not before you complete all the medication prescribed. The prescription is written to cover the time needed for your body to completely kill the bacteria. If you stop taking the antibiotic early, the bacteria that are still alive are more likely to be resistant and could restart the infection – or be passed on to others.

- **Can I save antibiotics for the next time I'm sick?**
  No. Taking incomplete doses of antibiotics will not make you better and will increase your risk for developing resistant bacteria in the future. Also, your next illness may be caused by a virus instead of bacteria – and antibiotics won't help.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or your local health department.

SAFE HANDLING OF BREAST MILK

Many studies have shown the benefits of breastfeeding, which is generally the preferred method of infant feeding. The AAP recommends exclusive breastfeeding for the first 6 months of an infant's life and continued breastfeeding after the introduction of solids for at least 12 months and beyond. All childcare providers should encourage and support the breastfeeding mother. These guidelines are provided to prevent transmission of infectious organisms that may be contained in breast milk.

General information

Breast milk is a body fluid. HIV and other serious infectious diseases can be transmitted through breast milk. However, the risk of infection from a single bottle of breast milk, even if the mother is HIV positive, is extremely small. CDC does not list human breast milk as a body fluid for which most healthcare personnel should use special handling precautions. Occupational exposure to human breast milk has not been shown to lead to transmission of HIV or HBV infections. In the United States, women who are HIV-positive are advised not to breastfeed their infants and therefore the potential for exposure to milk from an HIV-positive woman is low. Breastfeeding is not contraindicated for infants born to mothers who are infected with hepatitis B virus or mothers who are infected with hepatitis C virus.

Prevention of exposures

Store each child's bottled expressed breast milk in a container designated only for that child. Each bottle should be clearly labeled with the child's first and last name and the date the milk was expressed. Warm each child's bottle of breast milk in its own separate labeled container.

The mother's own expressed milk should be used for her own infant. Likewise, infant formula should not be used for a breastfed infant without the mother's written permission. Confirm each child's identity before feeding to prevent potential exposure to another mother's breast milk.

Non-frozen human milk should be transported and stored in the containers to be used to feed the infant, identified by a label which won't come off in the water or handling. Containers with significant amount of contents remaining (greater than 1 ounce) may be returned to the mother at the end of the day as long as the child has not fed directly from the bottle. Do not save milk from a used bottle for use at another feeding.

Frozen human milk may be transported and stored in single use plastic bags, and placed in the back of a freezer where the temperature is more constant. Human milk should be defrosted in a refrigerator and then heated under warm running water.

Staff prevention

- Staff should wash their hands before and after feeding.
- Clean up spilled breast milk and sanitize.

Follow-up of exposures

- Inform the parents of the child who was given the wrong bottle that:
  - Their child was given another child's bottle of expressed breast milk.
  - They should notify their child's healthcare provider and ask about whether their child needs to have an HIV test.
  - The risk of HIV transmission is believed to be low.

- Inform the mother who expressed the breast milk that the bottles were switched and ask:
  - Will she give the other parents information on when the breast milk was expressed and how it was handled prior to being brought to the childcare center?
  - If she has been tested previously for HIV, would she be willing to share the results with parents of the child given the incorrect milk?
  - If not tested previously for HIV, would she be willing to be tested for HIV and share the results with the other parents?

- The risk of an infant becoming infected with HIV after one feeding of breast milk from an HIV positive mother is thought to be extremely low. Factors relating to the risk of spread are unknown, but may include:
  - repeated or prolonged exposure to breast milk.
  - amount of HIV in the breast milk.
  - infant exposure to blood while breast feeding (e.g., blood from a mother's cracked nipples) the presence of mouth sores in the infant.

These conditions are less likely to occur in the childcare setting. Additionally, chemical properties in breast milk act together with time and cold temperatures to destroy HIV that may be present in expressed breast milk.

If a child has been given another child's bottle of expressed breast milk by mistake, the potential exposure to HIV should be treated the same way as an exposure to any other body fluid.

The risk to staff exposed to HIV from breast milk is very low because the risk of spread from skin/mucous membrane exposures is extremely low.

Modified from *What to do if an Infant or Child is Mistakenly Fed Another Woman's Expressed Breast Milk*, Centers for Disease Control and Prevention, 2006.

Breastfeeding is NOT advisable if one or more of the following conditions is true:

1. An infant diagnosed with galactosemia, a rare genetic metabolic disorder
2. The infant whose mother:
   - Has been infected with the human immunodeficiency virus (HIV)
   - Is taking antiretroviral medications
   - Has untreated, active tuberculosis
   - Is infected with human T-cell lymphotropic virus type I or type II
   - Is using or is dependent upon an illicit drug
   - Is taking prescribed cancer chemotherapy agents, such as antimetabolites that interfere with DNA replication and cell division
   - Is undergoing radiation therapies; however, such nuclear medicine therapies require only a temporary interruption in breastfeeding

For further information about breast milk storage or safe handling practices, please call your childcare health consultant. Additional information can also be found at the American Academy of Pediatrics' Breastfeeding and the Use of Human Milk or read: American Academy of Pediatrics Committee on Drugs. (2001) The transfer of drugs and other chemicals into human milk. Pediatrics 108:776-789 available online at: http://pediatrics.aappublications.org/cgi/content/full/108/3/776

COMMUNICABLE DISEASE REPORTING

Good communication among healthcare providers, childcare providers, school health staff, parents/guardians, and the health department can play a major role in preventing the spread of communicable diseases. It is important that parents/guardians let childcare providers and/or school health staff know whenever their children are diagnosed with a communicable disease. Childcare providers and school health staff should check with the local or state health department to find out if any special control measures are needed when informed of a child or staff member who has a communicable disease.

Missouri reporting rule

Many diseases must be reported to the health department: Missouri rule (19 CSR 20-20.020). Disease fact sheets included in Section 6 indicate which diseases are reportable, and reportable diseases are marked with an asterisk (*) in the table of contents.

Childcare providers and school health staff are required by the rule to report diseases to the health department. You do not need to worry about privacy issues or confidentiality when you make a report. Healthcare providers, laboratories, and others are also required to report. Some communicable diseases can be very serious, so it is important that you call right away, even if you think that someone else may have already made a report. Check the MDHSS website for any changes in the disease reporting rule: http://health.mo.gov/living/healthcondiseases/communicable/communicabledisease/pdf/reportablediseaselist2.pdf.

Reportable Diseases in Missouri

Immediately reportable diseases or findings shall be reported to the local health authority or to the Department of Health and Senior Services immediately upon knowledge or suspicion by telephone, facsimile or other rapid communication. Immediately reportable diseases or findings are—

(A) Selected high priority diseases, findings or agents that occur naturally, form accidental exposure, or as the result of a bioterrorism event:

- Anthrax (022, A22)
- Botulism (005.1, A05.1)
- Plague (020, A20)
- Rabies (Human) (071, A82)
- Ricin Toxin (988, T62)
- Severe Acute Respiratory Syndrome-associated Coronavirus (SARS-CoV) Disease (480.3, J12.8)'
- Smallpox (variola) (050, B03)
- Tularemia (pneumonic) (021.2, A21.2)
- Viral hemorrhagic fevers (filoviruses (e.g., Ebola, Marburg) and arenaviruses (e.g., Lassa, Machupo)) (078.7, 078.89, A96, A98, A99

2. Reportable within one (1) day diseases or findings shall be reported to the local health authority or to the Department of Health and Senior Services within one (1) calendar day of first knowledge or suspicion by telephone, facsimile or other rapid communication. Reportable within one (1) day diseases or findings are—

(A) Diseases, findings or agents that occur naturally, or from accidental exposure, or as a result of an undetected bioterrorism event:

- Acute respiratory distress syndrome (ARDS) in patients under fifty (50) years of age (without a contributing medical history)
- Animal (mammal) bite, wound, humans
- Brucellosis (023, A23)
- Cholera (001, A00)
- Dengue fever (065.4, A90, A91)
- Diphtheria (032, A36)
- Glanders (024, A24.0)

- Haemophilus influenzae, invasive disease (038.41, 041.5, 320.0, A41.3, J14, G00.0)
- Hantavirus pulmonary syndrome (079.81, 480.8, B33.8)
- Hemolytic uremic syndrome (HUS), post-diarrheal (283.11, D59.3)
- Hepatitis A (070.0, 070.1, B15)
- Influenza - associated pediatric mortality (18 years of age or younger) (487, J10)
- Influenza - associated public and/or private school closures (487, J10)
- Lead (blood) level greater than or equal to forty-five micrograms per deciliter (≥45 µg/dl) in any person equal to or less than seventy-two (≤72) months of age
- Measles (rubeola) (055, B05)
- Meningococcal disease, invasive (036, A39)
- Novel Influenza A virus infections, human (487, J10)
- Outbreaks (including nosocomial) or epidemics of any illness, disease or condition that may be of public health concern, including illness in a food handler that is potentially transmissible through food
- Pertussis (033.0, A37.0)
- Poliomyelitis (045, A80)
- Poliovirus infection, nonparalytic
- Q fever (083.0, A78)
- Rabies (animal)
- Rubella, including congenital syndrome (056, 771.0, B06, P35.0)
- Shiga toxin-producing Escherichia coli (STEC) (008.04, A04.3)
- Shiga toxin positive, unknown organism (005.8, 005.9, A04.8, A04.9)
- Shigellosis (004, A03)
- Staphylococcal enterotoxin B (988, T62)
- Streptococcus pneumoniae, drug resistant invasive disease (038.2, 481, 482.3, A40.3, J13)
- Syphilis, including congenital syphilis (090, 093-097, A50-A52)
- T-2 mycotoxins (989.7, 989.9, T64)
- Tetanus (037, A35)
- Tuberculosis disease (010-018, A15-A19)
- Tularemia (non-pneumonic) (021.3-9, A21.0-.1, A21.3-.9)
- Typhoid fever (Salmonella typhi) (002.0, A01.0)
- Vancomycin-intermediate Staphylococcus aureus (VISA), and Vancomycin-resistant Staphylococcus aureus (VRSA) (038.11, 041.11, A41.0, A49.0)
- Venezuelan equine encephalitis virus neuroinvasive disease (066.2, A92.2)
- Venezuelan equine encephalitis virus non-neuroinvasive disease (066.2, A92.2)
- Yellow fever (060.9, A95)

3. Reportable within three (3) days diseases or findings shall be reported to the local health authority or the Department of Health and Senior Services within three (3) calendar days of first knowledge or suspicion. These diseases or findings are

- Acquired immunodeficiency syndrome (AIDS) (042, B20)
- Arsenic poisoning
- California serogroup virus non-neuroinvasive disease (062.5, A92.8)
- California serogroup virus neuroinvasive disease
- Campylobacteriosis (008.43, A04.5)
- Carbon monoxide poisoning
- CD4+ T cell count
- Chancroid (099.0, A57)
- Chemical poisoning, acute, as defined in the most current ATSDR CERCLA Priority List of Hazardous Substances; if terrorism is suspected, refer to subsection (1)(B)
- Chlamydia trachomatis infections (099.8, A56)
- Coccidioidomycosis (114, B38)
- Creutzfeldt-Jakob disease (046.1, A81.0)
- Cryptosporidiosis (007.4, A07.2)
- Cyclosporiasis (007.5, A07.8)
- Eastern equine encephalitis virus neuroninvasive disease (062.2, A83.2)
- Eastern equine encephalitis virus non-neuroninvasive disease (062.2, A92.8)
- Ehrlichiosis, human granulocytic, monocytic, or other/unspecified agent (082.40, 082.41, 082.49, A79.8, A79.9)
- Giardiasis (007.1, A07.1)
- Gonorrhea (098.0-098.3, A54.0-A54.2)
- Hansen's disease (Leprosy) (030, A30)
- Heavy metal poisoning including, but not limited to, cadmium and mercury
- Hepatitis B, acute (070.20, 070.21, 070.30, 070.31, B16)
- Hepatitis B, chronic (070.22, 070.23, 070.32, 070.33, 070.42, 070.52, B18.0, B18.1)
- Hepatitis B surface antigen (prenatal HBsAg) in pregnant women (070.20-070.23, 070.30-070.33, 070.42, 070.52, B16, B18.0, B18.1)
- Hepatitis B Virus Infection, perinatal (HbsAg positivity in any infant aged equal to or less than twenty-four (<24) months who was born to an HbsAg-positive mother) (070.20-070.23, 070.30-070.33, 070.42, 070.52, B16, B18.0
- Hepatitis C, acute (070.41, 070.51, B17.1)
- Hepatitis C, chronic (070.44, 070.54, B18.2)
- Hepatitis non-A, non-B, non-C (070.9, B19)

- Human immunodeficiency virus (HIV)-exposed newborn infant (i.e., newborn infant whose mother is infected with HIV)
- Human immunodeficiency virus (HIV) infection, as indicated by HIV antibody testing (reactive screening test followed by a positive confirmatory test), HIV antigen testing (reactive screening test followed by a positive confirmatory test), detection of HIV nucleic acid (RNA or DNA), HIV viral culture, or other testing that indicates HIV infection
- Human immunodeficiency virus (HIV) test results (including both positive and negative results) for children less than two (2) years of age whose mothers are infected with HIV
- Human immunodeficiency virus (HIV) viral load measurement (including nondetectable results)
- Hyperthermia
- Hypothermia
- Lead (blood) level less than forty-five micrograms per deciliter (<45 µg/dl) in any person equal to or less than seventy-two (≤72) months of age and any lead (blood) level in persons older than seventy-two (>72) months of age
- Legionellosis (482.84, A48.1, A48.2)
- Leptospirosis (100, A27)
- Listeriosis (027.0, 771.2, A32, P37.2)
- Lyme disease (088.81, A69.2)
- Malaria (084, B50-B54)
- Methemoglobinemia, environmentally-induced
- Mumps (072, B26)
- Mycobacterial disease other than tuberculosis (MOTT) (031, A31)
- Occupational lung diseases including silicosis, asbestosis, byssinosis, farmer's lung and toxic organic dust syndrome
- Pesticide poisoning
- Powassan virus neuroinvasive disease (063.8, A83.8)
- Powassan virus non-neuroinvasive disease (063.8, A92.8)
- Psittacosis (073, A70)
- Rabies Post-Exposure Prophylaxis (Initiated) (V01.5 V04.5)
- Respiratory diseases triggered by environmental contaminants including environmentally or occupationally induced asthma and bronchitis
- Rocky Mountain spotted fever (082.0, A77.0)
- Saint Louis encephalitis virus neuroinvasive disease (062.3, A83.3)
- Saint Louis encephalitis virus non-neuroinvasive disease (062.3, A92.8)
- Salmonellosis (003, A02.0)
- Streptococcal disease, invasive, Group A (041.01, 034.1, A40.0, A49.1, A38)
- Streptococcus pneumoniae, invasive in children less than five (5) years (038.2, 481, 482.3, A40.3, J13)
- Toxic shock syndrome, staphylococcal or streptococcal (785.5, A48.3)
- Trichinellosis (124, B75)
- Tuberculosis infection (795.5, R76.1)
- Varicella (chickenpox) (052.1, 052.7, 052.8, 052.9)
- Varicella deaths (052, B01)
- Vibriosis (non-cholera Vibrio species infections) (005.4, .8, A05.3,.8)
- West Nile virus neuroinvasive disease (066.41, 066.42, A92.3)
- West Nile virus non-neuroinvasive disease (066.40, 066.49, A92.3)
- Western equine encephalitis virus neuroinvasive disease (062.1, A83.1)
- Western equine encephalitis virus non-neuroinvasive disease (062.1, A92.8)
- Yersiniosis (008.44, A04.6)

Reports from parents/guardians

Parents/guardians can also help to stop the spread of communicable diseases by telling the childcare provider or school health staff whenever their children are diagnosed with a communicable disease. The childcare provider or school health staff then can watch other children for symptoms, notify all the parents/guardians, and check with the health department to see if anything else needs to be done. The sooner everyone is notified, the faster control measures can be started and the spread of disease can be reduced or stopped.

Reports from staff

Childcare or school staff who are diagnosed with a reportable disease are responsible for letting the person in charge of the childcare facility or school health office know about the diagnosis.

Reports to local/state health department

Cases of reportable communicable diseases should be reported to your local health department or to the Missouri Department of Health and Senior Services. When you call to report a disease, please have the following information ready:

- Name of disease
- Person's name, birth date, address, parent or guardian's name and phone number(s)
- Date of onset of symptoms
- Symptoms the child is experiencing (e.g., cough, diarrhea, vomiting, rash, etc.)
- Healthcare provider's name and phone number
- Immunization dates (depending on the illness)

The health department staff person taking the report will advise you if you need to take any specific control measures.

Local and state health department disease prevention and control resources in Missouri

If you have a communicable disease question, please try to contact your local public health department first. If your local public health department is not listed or not available within a reasonable amount of time, contact the Bureau of Communicable Disease Control and Prevention at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday).

Local Health Department telephone numbers can be located on the DHSS website at:

http://health.mo.gov/living/lpha/lphas.php.

For the Department of Health and Senior Services District Offices nearest you:

District Office	City	Telephone
Cameron Area Health Office	Cameron	(816) 632-7276
Northwest District Health Office	Independence	(816) 350-5442
Central District Health Office	Columbia	(573) 884-3568
	Jefferson City	(573) 522-2728
Eastern District Health Office	St. Louis	(314) 877-2857
	St. Louis	(314) 877-0237
Southeast District Health Office	Cape Girardeau	(573) 290-5783
Southwest District Health Office	Springfield	(417) 895-6945
	Springfield	(417) 895-6918

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

CONTROL AND MANAGEMENT OF COMMUNICABLE DISEASE EXPOSURES AND OUTBREAKS

State and local health departments are required by law to safeguard the health of the people of Missouri. Early recognition, reporting, and intervention will reduce the spread of infection in childcare settings and schools. Exposures and outbreaks of communicable diseases in childcare settings and schools can result in spread to the general community.

Section 1 includes the exclusion policies for children in childcare/preschool and schools. When the child enrolls in childcare or school, parents/guardians should be given a list of exclusion policies and given notice whenever these policies change. Some childcare facilities or schools may have this information in a student handbook or on their websites. These policies may be useful when exposures or outbreaks occur.

Section 4 contains information on what diseases are reportable in Missouri, what information is needed when a report is made to the local or state health department, and a list of local and state health department disease prevention and control resources in Missouri.

When a communicable disease of public health importance or an outbreak of illness in a childcare setting or school is reported to the local or state health department, the health department will investigate the situation. Specific prevention and control measures will be recommended to reduce spread to others. These measures require the cooperation of the parents/guardians, child caregivers, children, school health staff, healthcare providers, childcare health consultants, and environmental health inspectors. In these situations, recommendations will be made by the health department regarding:

- Notification to parents/guardians, childcare providers, school health staff, and healthcare providers of the problem.
- Appropriate preventive measures.
- Exclusion of infected children and/or staff.
- Interviews of parents/guardians and staff regarding onset date and type of symptoms. Medical information is considered confidential (see Missouri Revised Statute 192.067).
- Collection of specimens, if necessary.
- Administration of antibiotics, vaccine, or immune globulin.
- Review of cleaning, sanitizing, disinfecting, and handwashing procedures.
- Review of food preparation or storage procedures.

Childcare providers and school health staff should be aware that these situations can be very stressful for everyone concerned. Cooperation and good communication help relieve some of this stress.

Reports to local or state health department

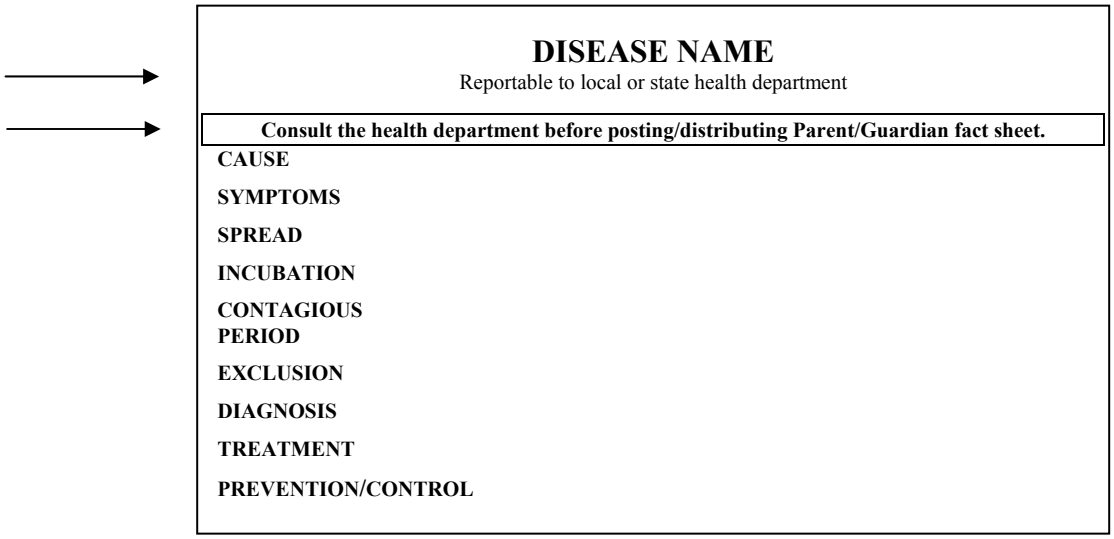
Childcare providers or school health staff should notify the local or state health department as soon as an outbreak is suspected. Doing so can reduce the length of the outbreak and the amount of activity required to bring it under control.

Notification of parents/guardians and childcare or school staff

In this manual there are fact sheets labeled PROVIDER and PARENT/GUARDIAN. The PROVIDER fact sheets are intended to be a reference for providers. PARENT/GUARDIAN fact sheets are written so the information should be easy to communicate to parents/guardians.

It is important that childcare providers and school health staff let parents/guardians and staff know whenever communicable diseases are found in children attending their programs. The PARENT/GUARDIAN fact sheets contain information to let parents/guardians know what types of symptoms to look for and what prevention/ control measures need to be taken. This manual contains fact sheets on most communicable diseases that you would expect to see in childcare or school settings. It is recommended that you either:

- Post the appropriate PARENT/GUARDIAN fact sheet, or
- Send home the appropriate PARENT/GUARDIAN fact sheet to each parent/guardian.
- For a **REPORTABLE DISEASE, you need to consult the local or state health department before posting or distributing the Parent/Guardian fact sheet.**



Many times, getting accurate information from the health department reassures parents/guardians that the situation is being closely followed and that efforts are being made to prevent further spread.

Sample line list

A line list is a tool that can be used by the provider when the childcare or school is receiving sporadic reports of illness in children from different classrooms. It is a standardized way to analyze data to determine the presence of an outbreak. In a line listing, each column represents an important variable, such as name, age, and symptoms present, while each row represents a different case. New cases are added as they are identified.

The line list for gastrointestinal illness is provided as an example. (See pg 75.) The Bureau of Communicable Disease Control and Prevention can assist you with modifying this tool to collect data on respiratory infections, skin infections, or for other situations.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department. Contact information for your local public health agency can be obtained from the following website: http://health.mo.gov/living/lpha/lphas.php.

SAMPLE: Line List for Gastrointestinal Illness

Bureau of Communicable Disease Control and Prevention Phone: (573) 751-6113 Fax (573) 526-0235 Date ___/__/__

School Name: ___ Contact: ___ Phone: ___ Outbreak onset: /__/__
Number of students in school: ___ Number ill: ___ % with diarrhea: ___ % with vomiting: _ % with fever: ___ % with bloody stool: ___

Student Name	Grade #	Class	Diarrhea	Vomit	Fever	Stool Sample	Seen by Healthcare Provider	Onset Date/Time
			Y N	Y N	Y N	Y N	Y N	Date: _/___/___ Time: ___ am/pm
			Y N	Y N	Y N	Y N	Y N	Date: _/___/___ Time: ___ am/pm
			Y N	Y N	Y N	Y N	Y N	Date: _/___/___ Time: ___ am/pm
			Y N	Y N	Y N	Y N	Y N	Date: _/___/___ Time: ___ am/pm
			Y N	Y N	Y N	Y N	Y N	Date: _/___/___ Time: ___ am/pm
			Y N	Y N	Y N	Y N	Y N	Date: _/___/___ Time: ___ am/pm
			Y N	Y N	Y N	Y N	Y N	Date: _/___/___ Time: ___ am/pm
			Y N	Y N	Y N	Y N	Y N	Date: _/___/___ Time: ___ am/pm
			Y N	Y N	Y N	Y N	Y N	Date: _/___/___ Time: ___ am/pm

COMMUNICABLE DISEASE FACT SHEETS
HOW AND WHEN TO USE

The fact sheets labeled PROVIDER are intended to provide childcare directors, school health staff, health consultants, and other providers with background information about the conditions/diseases, exclusion, and methods for treatment, prevention, and control. Diseases that are reportable to the local or state health department in Missouri are indicated on the PROVIDER fact sheet. The phrase "Reportable to local or state health department" appears under the title of the disease. If children or staff have been diagnosed with or are suspected of having any of these diseases, contact the local or state health department for consultation before sharing any information about the disease.

Many of the fact sheets have accompanying PARENT/GUARDIAN fact sheets. You may copy and post or distribute those fact sheets unless the disease is REPORTABLE – do not post or distribute any fact sheet for reportable diseases without permission of the local or state health department.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

BED BUGS

The presence of bed bugs in hotels, motels, dormitories, apartments, and houses in the United States has increased in the past few years; **however, bed bugs infest only a very small percentage of residences**. The bite of a bed bug has not been shown to spread disease. Bed bugs may be difficult to control without help from a pest control professional.

CAUSE

Cimex lectularius, a parasitic insect.

Bed bugs are small (up to 1/4" long) flattened, wingless insects that feed on the blood of people and certain animals. After feeding, the color of a bed bug changes from brown to purplish-red. Bed bugs live close to areas where people sleep, rest, or sit for long periods. Bed bugs move quickly, feed at night, and hide in small spaces (under bed mattresses, in furniture, etc.) during the day.

SYMPTOMS

Painless bites typically on the head, neck, arms, hands, or legs. Bites may become irritated and inflamed. Scratching may cause the bites to become infected. Bed bugs feed at night, so you may not be aware that you were bitten, or the bites can be mistaken for bites from another pest (fleas or mosquitoes).

SPREAD

Bed bugs do not jump or fly. They quickly crawl to find a human host, feed for less than 5 minutes, and then hide. Bed bugs like to hide in small places; therefore, it is possible that bed bugs will crawl into luggage, beds, or furniture that is being moved from one place to the next. It is also possible for bed bugs to crawl through small spaces between units in a hotel or apartment building. Because bed bugs can survive for many months without feeding, they may already be present and hidden in apartments or homes that appear to not have any bed bugs.

Remember: Bed bugs are not transmitted from person to person. They are not like lice and will not usually travel directly on a person's body. Bed bugs are spread between residences when they hide and are transported in luggage, furniture, or other items.

SIGNS OF BED BUGS

- If you or your family members notice bites after sleeping that were not there when you went to bed. Because several different kinds of insects look like bed bugs, carefully compare the bugs with good reference images to confirm their identity. If still unsure about the identity of bugs in the home, contact a pest control expert.

- Look for blood stains from crushed bugs or dark red spots (bed bug fecal material) on bed sheets and mattresses. Cast skins, which are empty shells of bed bugs as they grow from one stage to the next, may be present.

- Look for live, crawling bed bugs – usually found around the seams and in the folds of bed mattresses or in crevices of the bed frame. In heavier infestations, live bed bugs may be found further away from the bed (window and door frames, electrical boxes, cracks in floors and ceilings, within furniture, behind picture frames on the wall).

EXCLUSION

Childcare and School: Children and students living in households containing bed bugs do not need to be excluded.

TREATMENT A healthcare provider may recommend an antihistamine or corticosteroid to reduce allergic reaction and inflammation due to bed bug bites. Bed bugs are not known to spread any diseases.

PREVENTION/CONTROL

- DO NOT bring infested items into the home. **Carefully** inspect clothing and baggage after traveling. Pay attention to cracks, crevices, seams, and folds of suitcases and luggage.

- Use caution when buying used furniture. Inspect all furniture and avoid buying used bed mattresses and bed frames. Taking free furniture items left by the curb for disposal or behind places of business is not recommended.

- After confirming a bed bug infestation in the home, **consult a licensed pest control operator who has experience with bed bugs before beginning any control activities.** (Tenants should contact their property manager or landlord to discuss their respective obligations and to agree on a plan to manage the infestation.)

- Control plans will be made on a case by case basis; the control plan may include the following activities:
  - Reduce clutter to limit the hiding places for bed bugs.
  - Thoroughly clean infested rooms - vacuum carpets, upholstered furniture, bed mattresses, bed frames, etc. It may be necessary to move and disassemble furniture during cleaning.
  - Wash all bedding and affected clothing in hot water and dry in a hot dryer for at least 20 minutes before using again.
  - Caulk or seal all holes in ceilings, walls, and around baseboards.
  - Various insecticide (chemicals that kill insects) treatments may be needed. The insecticides available are commercial products requiring special equipment and training and are not readily available in "over-the-counter" products. **Insecticides should be applied by a licensed pest control operator.**

- DO NOT apply any insecticides to bed mattresses or on bedding or linens. Work with a certified pest control operator to determine how insecticides will be used and applied in your residence. Insecticide treatments may require you to leave your home for a few hours or even several days. Several treatments may be needed to fully control the problem.

For more information, call Missouri Department of Health and Senior Services (MDHSS) Bureau of Environmental Health Services at 573-751-6095 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

For more information about bedbugs, refer to University of Missouri's Extension Office website at: **http://extension.missouri.edu/publications/DisplayPub.aspx?P=G7396.**

BRONCHITIS, ACUTE (CHEST COLD)/ BRONCHIOLITIS

Bronchiolitis is a respiratory condition that is usually seen in children under 2 years of age. Bronchitis and bronchiolitis tend to occur more often in the fall and winter months. When infants and young children experience common respiratory viruses and are exposed to secondhand tobacco smoke, they are at risk of developing bronchiolitis, bronchitis, pneumonia, and middle ear infections.

CAUSE Many different viruses (most commonly respiratory syncytial virus [RSV], parainfluenza virus, influenza virus, and adenoviruses), *Mycoplasma pneumoniae*, and some bacteria. Most of these organisms can cause other illnesses and not all persons exposed to the same organism will develop bronchitis or bronchiolitis.

SYMPTOMS Usually starts with a runny nose, fever, and a dry, harsh cough that becomes looser as the illness progresses. Older children may cough up green or yellow sputum. Sore throat can occur in some cases. It may take 1 to 2 weeks for the cough to stop.

SPREAD Viruses and bacteria are spread by touching the secretions from the nose or mouth of an infected person and/or touching hands, tissues, or other items soiled with these secretions and then touching your eyes, nose, or mouth.

INCUBATION Depends upon the organism that is causing the illness.

CONTAGIOUS PERIOD Until shortly before symptoms begin and for the duration of acute symptoms.

EXCLUSION Childcare and School: Until fever is gone and the child is well enough to participate in routine activities.

DIAGNOSIS Recommend parents/guardians call their healthcare provider if their child has a high fever, persistent sore throat, or persistent cough.

TREATMENT Since viruses cause most cases of acute bronchitis or bronchiolitis, antibiotics will not be effective.

DO NOT GIVE ASPIRIN or SALICYLATE-CONTAINING MEDICATIONS TO ANY CHILD OR ADOLESCENT UNDER 18 YEARS OF AGE.

PREVENTION/CONTROL

- Cover nose and mouth with a tissue when coughing and sneezing or cough/sneeze into your sleeve. Dispose of used tissues.
- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after contact with secretions from the nose or mouth.
- Clean and sanitize mouthed objects, and surfaces at least daily and when soiled. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Bronchitis

Bronchitis/bronchiolitis are respiratory illnesses caused by viruses or bacteria.

If you think your child has Bronchitis:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  Yes, until fever is gone and your child is healthy enough for routine activities.

DO NOT give aspirin or salicylate-containing medicines to anyone under 18 years of age.

Symptoms

Your child may have a runny nose and fever. Cough starts out dry and harsh. It becomes looser after the child has been sick for a while. Your child may have a sore throat. The cough can last 1 to 2 weeks.

Spread

- By touching secretions from the nose or mouth.
- By touching contaminated hands, objects or surfaces.

Contagious Period

Shortly before and while your child has symptoms.

Call your Healthcare Provider

♦ If your child has a fever. Also if your child has a sore throat or cough that won't go away.

Antibiotics do not work for illnesses caused by a virus, including some types of bronchitis.

Prevention

- Cover nose and mouth when coughing and sneezing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with secretions from the nose or mouth. Your child may need help with handwashing.
- Clean and disinfect any objects or surfaces that come in contact with secretions from the nose or mouth. Use a product that kills bacteria and viruses.
- DO NOT expose your child to second-hand tobacco smoke. Smoke increases the risk for serious respiratory infections and middle ear infections.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

CAMPYLOBACTERIOSIS

Reportable to local or state health department

Consult the health department before posting/distributing Parent/Guardian fact sheet.

CAUSE *Campylobacter* bacteria.

SYMPTOMS Diarrhea, abdominal pain, nausea, fever, and vomiting. The diarrhea may contain blood and mucus. Illness usually lasts 2 to 5 days. Persons with *Campylobacter* infections may have mild symptoms or may not have any symptoms at all.

SPREAD *Campylobacter* bacteria leave the body through the feces of an infected person or animal and enter another person when hands, food, or objects (such as toys) contaminated with feces or raw meat or poultry are placed in the mouth. Spread can occur when people do not wash their hands after using the toilet or changing diapers. Spread can also occur through handling infected pets, usually puppies, kittens, or farm animals.

People most often get *Campylobacter* by eating contaminated food, or drinking contaminated water or unpasteurized milk.

INCUBATION It takes from 1 to 10 days, usually 2 to 5 days, from the time a person is exposed until symptoms begin.

CONTAGIOUS PERIOD As long as *Campylobacter* are present in the feces, a person can pass these bacteria on to other people.

EXCLUSION Childcare: Until the child has been free of diarrhea for at least 24 hours. Children who have *Campylobacter* in their feces but who do not have symptoms do not need to be excluded.

School: None, unless the child is not feeling well and/or has diarrhea. Further exclusion may be necessary during outbreaks.

No one with *Campylobacter* should use swimming beaches, pools, water parks, spas, or hot tubs until 2 weeks after diarrhea has stopped.

Exclude symptomatic staff with *Campylobacter* from working in food service.

DIAGNOSIS Recommend parents/guardians call their healthcare provider if their child has symptoms. There is a lab test to detect *Campylobacter.*

TREATMENT Almost all persons infected with Campylobacter recover without any specific treatment. Patients should drink extra fluids as long as the diarrhea lasts. In more severe cases, antibiotics can be used, and may shorten the duration of symptoms if given early in the illness. A physician should decide whether antibiotics are necessary.

PREVENTION/CONTROL

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after using the toilet and changing diapers and before preparing or eating food. Staff should closely monitor or assist all children, as appropriate, with handwashing after children have used the bathroom or been diapered.

- Wash hands thoroughly with soap and warm running water immediately after handling pets or other animals.

- Clean and disinfect diapering area and potty chairs after each use and bathroom toilets, sinks, and toys at least daily and when soiled. (See pgs 35-41)

- Clean and sanitize mouthed objects and surfaces whenever soiled and at least daily. (See pgs 35-41)

- **Food Safety**
  - Thoroughly cook all foods that come from animals, especially poultry.
  - Store all uncooked meat and poultry on a shelf lower than any other foods in the refrigerator.
  - DO NOT drink unpasteurized milk or juices.
  - Wash and disinfect all cutting boards, knives, utensils, or dishes that have been used for raw meat or poultry before using with already cooked foods and with uncooked foods, such as fruits or vegetables.
  - Always wash hands, cutting boards, utensils, and dishes between uncooked and cooked foods.
  - Restrict students from sharing any communal food items that are brought from home. In the classroom, children should not serve themselves food items that are not individually wrapped. The teacher should hand out these items after washing his/her hands. (This is not intended to discourage family-style serving in the absence of an outbreak.)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Campylobacteriosis

Campylobacteriosis is a bacterial infection of the intestines.

If you think your child has Campylobacteriosis:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare:

  Yes, until diarrhea has stopped.

  School:

  No, unless the child is not feeling well and/or has diarrhea.

In addition, anyone with campylobacteriosis should not use swimming beaches, pools, water parks, spas, or hot tubs until 2 weeks after diarrhea has stopped.

Symptoms

Your child may have diarrhea, vomiting, or a fever. Your child's stomach may hurt. These symptoms may last up to 5 days.

If your child is infected, it may take 2 to 5 days for symptoms to start.

Spread

- By eating or drinking contaminated beverages or food, including undercooked chicken.
- By touching contaminated hands, surfaces, or objects.
- By handling pets and farm animals.

Contagious Period

The illness can spread as long as *Campylobacter* bacteria are in the feces.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms. Your doctor can test for *Campylobacter* and may decide you need to be treated with an antibiotic.
- ♦ Ask how to prevent dehydration. Your child may become dehydrated due to vomiting or diarrhea.

Prevention

- Wash hands after using the toilet and changing diapers and before preparing food or eating. Your child may need help with handwashing.
- Clean and disinfect any objects that come in contact with feces. This includes toilets (potty chairs), sinks, toys, and diaper changing areas. Use a product that kills bacteria.
- Puppies, kittens, or farm animals can cause *Campylobacter* infection. Wash your hands after touching pets and farm animals.
- Cook foods thoroughly and do not drink unpasteurized milk or juice. Always disinfect food preparation surfaces, especially after handling or cutting raw chicken.

For more information, call Missouri Department of Health and Senior Services (DHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

CHICKENPOX (VARICELLA)

Reportable to local or state health department

Chickenpox (also known as varicella*)* is an acute viral illness. It is a common childhood infection that may be prevented by vaccination. It is highly contagious, but rarely serious for most children.

CAUSE Varicella-zoster virus, a member of the herpesvirus family.

SYMPTOMS Mild fever and generalized skin rash that begins on the chest, back, underarms, neck, and face. It starts out as red bumps. Within several hours, the bumps turn into small blisters (fluid-filled bumps), and then scabs after a few days. The sores commonly occur in batches with different stages (bumps, blisters, and sores) present at the same time.

Chickenpox can be severe in newborns, adults, and those with weakened immune systems. Complications that commonly lead to hospitalization and can lead to death include severe skin and soft tissue infections, pneumonia, encephalitis, and dehydration.

SPREAD From person to person by touching the blister fluid or secretions from the nose or mouth of a person with chickenpox. Varicella-zoster virus can also spread through the air, when a person with chickenpox coughs or sneezes, tiny droplets with virus and another person breathes them in (airborne spread).

INCUBATION It takes from 10 to 21 days, usually 14 to 16 days, after being exposed until symptoms develop.

CONTAGIOUS PERIOD From 1 to 2 days before the rash begins until all blisters have become scabs (generally within 5 days with a range of 4 to 7 days after the appearance of the first blisters in an otherwise healthy child). Persons who have progressive varicella (development of new lesions greater than 7 days) might be contagious longer.

DIAGNOSIS Based on typical symptoms and the characteristic rash. Breakthrough disease is a varicella disease that develops more than 42 days after vaccination which typically is mild, with less than 50 skin lesions, low or no fever, and shorter (4 to 6 days) duration of illness.

TREATMENT Recommend parents/guardians call their healthcare provider.

DO NOT GIVE ASPIRIN or OTHER SALICYLATE-CONTAINING MEDICATIONS TO ANY CHILD OR ADOLESCENT UNDER 18 YEARS OF AGE.

EXCLUSION Childcare and School: Until all the blisters have dried into scabs; usually by day 6 after the rash began.

It takes 10 to14 days after receiving vaccine to develop immunity. Vaccine failures occasionally occur. The incubation period is 10 to 21 days. Therefore, exclude children who:

EXCLUSION (CONTINUED)

- Appear to have chickenpox regardless of whether or not they have received varicella vaccine, or
- Develop blisters within 10 to 21 days after vaccination.

Chickenpox can occur even if someone has had the varicella vaccine. These are referred to as "breakthrough infections" and are usually less severe and have an atypical presentation. Bumps rather than blisters may be present; therefore, scabs may not be present. These cases should be excluded until all bumps/blisters/scabs (sores) have faded and no new sores have occurred within a 24-hour period, whichever is later. Sores do not need to be completely resolved.

Although extremely rare, the vaccine virus has been transmitted to susceptible contacts by vaccine recipients who develop a rash following vaccination. Therefore, exclude vaccine recipients who develop a rash after receiving varicella vaccine, using the above criteria.

Exposed children without symptoms do not need to stay home unless chickenpox develops.

PREVENTION/CONTROL

- All children should be routinely vaccinated with two doses of varicella vaccine; with the first dose at age 12 to15 months and the second dose typically at 4 to 6 years of age.

- If you think a child has chickenpox, have the parent/guardian call their healthcare provider before taking the child in.

- Cover nose and mouth with a tissue when coughing or sneezing or cough/sneeze into your sleeve. Dispose of used tissues.

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after contact with secretions from the nose or mouth or blister fluid.

- Clean and sanitize mouthed objects and surfaces. Clean and disinfect objects and surfaces contaminated with secretions from the nose or mouth and/or blister fluid at least daily and when soiled. (See pgs 35-41)

- Susceptible persons (have not had chickenpox or varicella vaccine in the past) who have been exposed to someone with chickenpox should call their healthcare provider immediately. This is especially important for pregnant women and persons with a weakened immune system. Getting varicella vaccine within 3 days, and possibly up to 5 days, of exposure may prevent disease in these people. Antiviral medicine may also be prescribed.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Chickenpox

Chickenpox is a viral illness. It is common for children to get chickenpox. It may be prevented by vaccination.

If you think your child has Chickenpox:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  Yes, **until all the blisters have dried into scabs. This is usually by day 6 after the rash began.**
  This is true even if the child has been vaccinated.

DO NOT give aspirin or salicylate-containing medicines to anyone under 18 years of age.

Symptoms

Your child will have a rash that begins as red bumps and may have a fever.

If your child is infected, it may take 10-21 days for symptoms to begin.

Spread

- By touching the blister fluid or secretions from the nose or mouth.
- By coughing or sneezing.

Contagious Period

From 1 to 2 days before the rash begins until all blisters have become scabs. Scabs usually form within 6 days.

Call your Healthcare Provider

If someone in your home:

- develops a rash with fever. Your doctor will decide if treatment is needed. **DO NOT go to a healthcare facility without calling first**. You will be separated from others to prevent spread of illness.
- has been exposed to chickenpox and they have not had chickenpox disease or chickenpox (varicella) vaccine in the past or are pregnant.

Prevention

- In Missouri, all children 12 months and older attending childcare or school must be vaccinated with varicella vaccine, have a history of disease, or have an exemption.
- Cover nose and mouth when sneezing or coughing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with secretions from the nose and mouth. Your child may need help with handwashing.
- Clean and disinfect any objects or surfaces that come in contact with secretions from the nose or mouth. Use a product that kills viruses.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

CONJUNCTIVITIS (PINKEYE)

Conjunctivitis is redness and inflammation of the membrane (conjunctiva) that covers the eye and lines the inner surface of the eyelid. Pinkeye is a common infection in young children.

CAUSE Bacteria, viruses, allergies, eye injuries, or chemicals.

SYMPTOMS Includes redness, itching, pain, and discharge, depending on the cause. Bacterial conjunctivitis can sometimes be distinguished from other forms of conjunctivitis by a more purulent (pus) discharge.

SPREAD Touching the secretions from the eyes, nose, or mouth of infected persons.

INCUBATION It takes about 1 to 12 days after exposure for symptoms to begin, usually 1 to 3 days.

CONTAGIOUS PERIOD Viral and bacterial conjunctivitis are infectious while there is discharge from the eye. Conjunctivitis caused by chemicals or allergies is not infectious.

EXCLUSION

Childcare and School**:**
Purulent Conjunctivitis (redness of eyes and/or eyelids with thick white or yellow eye discharge and eye pain): Exclude until appropriate treatment has been initiated or the discharge from the eyes has stopped unless doctor has diagnosed a non-infectious conjunctivitis.

Infected children without systemic illness (i.e. Adenoviral, Enteroviral, Coxsackie) should be allowed to remain in school once any indicated therapy is implemented, unless their behavior is such that close contact with other students cannot be avoided.

Childcare and School**:**
Nonpurulent conjunctivitis (redness of eyes with a clear, watery eye discharge but without fever, eye pain, or eyelid redness): None, may be considered if child is unable to keep hands away from eyes.

DIAGNOSIS Recommend parents/guardians call their healthcare provider if their child has redness of eyes and/or eyelids with pus and/or fever or eye pain.

TREATMENT Antibiotic treatment (eye ointment or drops) is occasionally prescribed for bacterial conjunctivitis. If the infection appears to be viral, most cases require only symptomatic treatment however; severe cases may need treatment with antivirals and other medications.

PREVENTION/CONTROL

- Cover nose and mouth when sneezing or coughing. Use a tissue or your sleeve. Dispose of used tissues.
- Encourage children not to rub eyes. Keep the child's eyes wiped free of discharge. Avoid contact with eye drainage.
- Viral conjunctivitis spread may also occur through contact with infected upper respiratory droplets, fomites, and contaminated swimming pools. Isolation precautions may be needed for at least 2 weeks or as long as the eyes are red and weeping.

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after contact with eye drainage.

- DO NOT share any articles, such as towels and washcloths, eye makeup, contact lens solution, or eye drops.

- Clean and sanitize mouthed objects, and surfaces at least daily and when soiled. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Pink Eye

Conjunctivitis (pink eye) is redness and soreness of the eye.

If you think your child has Pink Eye:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  <u>Childcare and School</u>:

  Yes, if there is thick white or yellow drainage and eye pain, the child should be excluded until appropriate treatment has been initiated or the discharge from the eyes has stopped unless doctor has diagnosed a non-infectious conjunctivitis.

  No, if eye drainage is clear and watery and the child has no eye pain.

Symptoms

Your child may have redness, itching, pain, and drainage from the eyes. Your child may have a fever.

If your child is infected, it usually takes 1 to 3 days for symptoms to start.

Spread

- By touching secretions from the eyes, nose, or mouth.
- By touching contaminated hands, objects, or surfaces.

Contagious Period

While symptoms are present.

Call your Healthcare Provider

- ♦ If your child has thick drainage from the eye. Your doctor will decide if treatment is needed.
- ♦ Antibiotic treatment may be prescribed. If the infection is caused by a virus, antiviral treatment may be needed.

Prevention

- Cover nose and mouth when sneezing or coughing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with secretions from the eyes, mouth, or nose. Your child may need help with handwashing.
- Clean and disinfect objects that come in contact with the secretions from the eyes, mouth, or nose. Use a product that kills bacteria and viruses.
- DO NOT share anything that touches the eyes, such as towels and washcloths, eye makeup, contact lens solution, or eye drops.
- Discourage rubbing and touching the eyes. Keep the child's eyes wiped free of drainage.
- Use a cotton-tipped swab to apply medication.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

CROUP

Croup refers to several fairly common respiratory illnesses that affect young children, usually between the ages of 3 months and 3 years, with most illness occurring during the second year of life. Croup occurs year-round depending upon the virus causing the illness.

CAUSE Many different viruses, most commonly parainfluenza virus type 1. Not all persons exposed to the same virus will come down with croup. Since many different viruses can cause the illness, a child may develop croup more than once.

SYMPTOMS Runny nose, sore throat, mild cough, and fever often occur one to several days before the cough starts. Croup is characterized by hoarseness and a deepening, non-productive cough. Rapid breathing, sitting forward in bed to cough, or making a noise when taking a breath may also occur. The child may be better during the day, but gets worse at night. The illness lasts 3 to 4 days, but the cough may last longer. Hospitalization may be required if the illness is severe.

SPREAD By touching the secretions from the nose or mouth of an infected person and/or touching hands, tissues, or other items soiled with these secretions and then touching your eyes, nose, or mouth.

INCUBATION It may take up to 10 days after exposure for early symptoms to develop and several days later for the cough to occur.

CONTAGIOUS PERIOD From shortly before symptoms begin and for as long as the acute symptoms last.

EXCLUSION Childcare: Until fever is gone and the child is well enough to participate in routine activities.

DIAGNOSIS Recommend parents/guardians call their healthcare provider if their child has a high fever, difficulty swallowing or breathing, or persistent sore throat or cough.

TREATMENT Croup is a viral illness; therefore, antibiotics will not be effective.

DO NOT GIVE ASPIRIN or SALICYLATE-CONTAINING MEDICATIONS TO ANY CHILD OR ADOLESCENT UNDER 18 YEARS OF AGE.

PREVENTION/CONTROL

- Cover nose and mouth with tissue when coughing and sneezing or cough/sneeze into your sleeve. Dispose of used tissues.
- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after contact with secretions from the nose or mouth.
- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Croup

Croup is a respiratory illness caused by a virus. It usually affects young children.

If you think your child has Croup:

- Tell your childcare provider.
- **Need to stay home?**

  Childcare:

  Yes, until fever is gone and the child is healthy enough for routine activities.

DO NOT give aspirin or salicylate-containing medicines to anyone under 18 years of age.

Symptoms

Your child may have a runny nose, sore throat, mild cough, and fever.

Several days later there may be a dry cough and hoarseness. Rapid breathing or making a noise when taking a breath may also occur. The cough may be worse at night. The illness lasts 3 to 4 days, but the cough may last longer.

If your child is infected, it may take up to 10 days for early symptoms to develop and a few more days for cough symptoms to start.

Spread

- By touching secretions from the nose or mouth.
- By touching contaminated hands, objects, or surfaces.

Contagious Period

From shortly before and while your child has symptoms.

Call your Healthcare Provider

♦ If your child has a high fever or has a hard time swallowing or breathing. Also if your child has a sore throat or cough that won't go away.

Antibiotics do not work for illnesses caused by a virus, including croup.

Prevention

- Cover nose and mouth when coughing and sneezing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with secretions from the nose or mouth and before preparing food or eating. Your child may need help with handwashing.
- Clean and disinfect any objects or surfaces that come in contact with secretions from the nose or mouth. Use a product that kills bacteria and viruses.
- DO NOT expose your child to second-hand tobacco smoke. Smoke increases the risk for serious respiratory infections and middle ear infections.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

CRYPTOSPORIDIOSIS

Reportable to local or state health department

Consult the health department before posting/distributing Parent/Guardian fact sheet.

CAUSE *Cryptosporidium*, a parasite.

SYMPTOMS Frequent watery diarrhea, vomiting, and low-grade fever that lasts for several days are the most common symptoms. Other symptoms include stomach cramps, loss of appetite, and weight loss. Illness usually lasts from 7 to 10 days, but may last up to 30 days. Infected persons may have mild symptoms or may not have any symptoms at all. In persons with weakened immune systems, it can cause very serious illness and even result in death.

SPREAD *Cryptosporidium* parasites leave the body through the feces of an infected person and enter another person when hands, food, or objects (such as toys) contaminated with feces are placed in the mouth. Spread can occur when people do not wash their hands after using the toilet or changing diapers. Spread can occur through contact with infected pets and farm animals, particularly cattle.

Outbreaks of cryptosporidiosis have occurred as a result of eating food and drinking water contaminated by the parasite. Waterborne outbreaks have occurred both as a result of drinking contaminated water and from swimming or playing in contaminated pools, lakes, or fountains.

INCUBATION It takes 2 to 14 days, usually about 7 days, from the time a person is exposed until symptoms begin.

CONTAGIOUS PERIOD As long as *Cryptosporidium* is present in the feces, a person can pass the bacteria on to other people. *Cryptosporidium* can be present in feces for at least 2 weeks after symptoms have stopped.

EXCLUSION Childcare: Until the child has been free of diarrhea for at least 24 hours.

School: None, unless the child is not feeling well and/or has diarrhea. Further exclusion may be necessary during outbreaks.

No one with *Cryptosporidium* should use swimming beaches, pools, water parks, spas, or hot tubs for 2 weeks after diarrhea has stopped.

Exclude symptomatic staff with *Cryptosporidium* from working in food service.

DIAGNOSIS Recommend parents/guardians call their healthcare provider if their child has symptoms. There is a lab test to detect C*ryptosporidium* in the feces.

TREATMENT An antiparasitic drug has been approved for treatment of children and adults with healthy immune systems; however, the majority of healthy persons who are infected with *Cryptosporidium* get better without any specific treatment. Vomiting and diarrhea may lead to dehydration, which may be a medical emergency. Ask a healthcare provider how to prevent dehydration.

PREVENTION/CONTROL

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after using the toilet, changing diapers, and before preparing or eating food. Staff should closely monitor or assist all children, as appropriate, with handwashing after children have used the bathroom or been diapered.

- Wash hands thoroughly with soap and warm running water immediately after handling pets and touching farm animals, particularly cattle.

- Restrict students from sharing any communal food items that are brought from home. In the classroom, children should not serve themselves food items that are not individually wrapped. The teacher should hand out these items after washing his/her hands. (This is not intended to discourage family-style serving in the absence of an outbreak.)

- DO NOT swallow water when swimming in lakes, swimming pools, hot tubs, or fountains. *Cryptosporidium* can survive for days in swimming pools with adequate chlorine levels.

- Clean and disinfect diapering area and potty chairs after each use and bathroom toilets, sinks, and toys at least daily and when soiled. (See pgs 35-41)

Disinfecting Solutions

Bleach solutions are not effective for inactivating the *Cryptosporidium* parasite. Mechanically cleaning surfaces by scrubbing with soap or detergent and water will help reduce parasites. Contact your local health department for disinfection recommendations if an outbreak of cryptosporidiosis occurs.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Cryptosporidiosis

Cryptosporidiosis is an infection of the intestines caused by a parasite.

If you think your child has Cryptosporidiosis:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare:

  Yes, until the child has been free of diarrhea for at least 24 hours.

  School:

  No, unless the child is not feeling well and/or has diarrhea.

In addition, anyone with cryptosporidiosis should not use swimming beaches, pools, water parks, spas, or hot tubs for 2 weeks after diarrhea has stopped.

Symptoms

Your child may have watery diarrhea, vomiting, and fever. Your child may not be hungry or may complain about stomach pain. Illness may last up to 10 days.

If your child is infected, it may take 2 to 14 days for symptoms to start.

Spread

- By eating or drinking contaminated food or beverages.
- By touching contaminated hands, surfaces, or objects.
- By handling pets and farm animals.

Contagious Period

The illness can spread as long as *Cryptosporidium* parasites are in the feces. This may be 2 weeks or longer.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms. There is a medical test to detect the parasite. There is a treatment; however, most people get better without any specific treatment.
- ♦ Ask how to prevent dehydration. Your child may become dehydrated due to vomiting and diarrhea.

Prevention

- Wash hands after using the toilet and changing diapers and before preparing food or eating. Your child may need help with handwashing.
- Clean and disinfect any objects that come in contact with feces. This includes toilets (potty chairs), sinks, toys, and diaper changing areas. Use a product that kills parasites.
- Pets and farm animals (particularly cattle) can cause cryptosporidiosis. Wash your hands after touching pets and farm animals.
- DO NOT swallow water when swimming in lakes, swimming pools, hot tubs or fountains. Spread can occur through contaminated water.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

CYTOMEGALOVIRUS (CMV) INFECTION

CMV is a common virus that infects most people, but rarely causes illness. Most people have been exposed to CMV by adulthood.

CAUSE Cytomegalovirus (CMV), a member of the herpesvirus family.

SYMPTOMS Most people have no symptoms. Occasionally, a person may develop mononucleosis-like symptoms that include fever, sore throat, tiredness, and swollen glands.

Some groups (e.g., those with a weakened immune system due to chemotherapy, organ transplants, or HIV infection) are at special risk for more serious infections. About 5% of children whose mothers were infected during pregnancy may have birth defects such as hearing loss, mental retardation, and delays in development. Babies can be infected in utero.

SPREAD Through contact with saliva or urine of an infected person. Close, prolonged physical contact is necessary for spread to occur. CMV spreads easily in childcare settings, most often among children who drool and/or are in diapers and have no symptoms.

INCUBATION Unknown for person-to-person spread.

CONTAGIOUS PERIOD Virus may be present in urine or saliva for long periods of time, even in people with no symptoms. The virus dies rapidly outside the body.

EXCLUSION Childcare and School: None.

TREATMENT None.

PREVENTION/CONTROL

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after changing diapers, assisting a child in the bathroom, having contact with a child's saliva or urine, or before preparing food or eating.
- Minimize contact with children's saliva by not kissing their lips or hands and by not having mouth contact with items that could be contaminated by saliva.
- Clean and disinfect items contaminated with saliva or urine. (See pgs 35-41)
- In addition to the above recommendations, female childcare providers who are pregnant may consider working with only children older than 2 ½ years of age, especially if they have never been infected with CMV or are unsure if they have been exposed. However, contact with children that does not involve exposure to saliva or urine poses no risk.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

CMV	CMV (cytomegalovirus) is a common virus that infects most people, but rarely causes illness.

If you think your child has CMV:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  <u>Childcare and School</u>:

  No.

Symptoms

Most people have no symptoms. Very rarely, a person may develop symptoms. These symptoms include fever, sore throat, tiredness, and swollen glands.

Spread

By touching saliva or urine.

Contagious Period

Virus may be in urine or saliva for long periods of time.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms of CMV.

Prevention

- Wash hands after using the toilet, changing diapers, touching secretions from the nose or mouth, and before preparing food or eating. Your child may need help with handwashing.
- Clean and disinfect objects that come in contact with urine or saliva. Use a product that kills viruses.
- Minimize contact with children's saliva. Avoid kissing their lips or hands.
- DO NOT have mouth contact with items contaminated with saliva.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

DIARRHEA (INFECTIOUS)

Diarrhea is an increased number of bowel movements (compared with a person's normal pattern), along with watery, bloody, and/or mucus-containing feces. Diarrhea often is a symptom of infection caused by organisms such as bacteria, parasites, or viruses.

CAUSE

Many bacteria, parasites, and viruses can cause diarrhea. Some examples are:
Bacteria: *Salmonella, Shigella, Campylobacter, STEC*
Parasites: *Giardia*, *Cryptosporidium*, *Cyclospora*
Viruses: Norovirus (Norwalk-like), rotavirus, enterovirus

SYMPTOMS

In addition to diarrhea, there may be blood and mucus in the feces.
Other symptoms may include nausea, stomach pain, vomiting, and fever.

SPREAD

Infectious bacteria leave the body through the feces of an infected person. Spread can occur when people do not properly wash their hands after using the toilet or changing diapers. If not removed by good handwashing, they may then contaminate food or objects (such as toys) and infect another person when the food or object is placed in that person's mouth. Spread can occur whether or not a person feels sick.

INCUBATION

Varies by organism. It may take from 1 day to 4 weeks (sometimes longer) from the time a person is exposed until symptoms start.

CONTAGIOUS PERIOD

As long as infectious organisms are present in the feces, a person can pass the organism on to other people.

EXCLUSION

Childcare: Until the child has been free of diarrhea for at least 24 hours. The length of time may vary depending on the organism. For some infections, the person must also be treated with antibiotics or have negative laboratory tests before returning to childcare. (See fact sheet for specific organism when known.)

School: Exclude children that have diarrhea that may be infectious until the child has been free of diarrhea for at least 24 hours. Further exclusion may be necessary during outbreaks.

No one with diarrhea should use swimming beaches, pools, spas, water parks, or hot tubs for at least 2 weeks after diarrhea has stopped.

Staff with diarrhea that could be infectious should be restricted from working in food service. Call your local health department to see if other restrictions apply.

DIAGNOSIS

Recommend parents/guardians call their healthcare provider if their child has symptoms. A lab test (feces exam or culture) may be done to determine the cause.

TREATMENT

Treatment will depend on which organism is present. Vomiting and diarrhea may lead to dehydration, which may be a medical emergency. Ask a healthcare provider how to prevent dehydration.

PREVENTION/CONTROL

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after using the toilet or changing diapers and before preparing or eating food. Staff should closely monitor or assist all children, as appropriate, with handwashing after children have used the bathroom or been diapered.

- Restrict students from sharing any communal food items that are brought from home. In the classroom, children should not serve themselves food items that are not individually wrapped. The teacher should hand out these items after washing his/her hands. (This is not intended to discourage family-style serving in the absence of an outbreak).

- Clean and disinfect diapering area and potty chairs after each use and the bathroom toilets and sinks at least daily and when soiled. (See pgs 35-41)

- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department

Your child may have been exposed to:

Infectious Diarrhea

Diarrhea is more bowel movements that are looser and watery when compared to a person's normal pattern and form. Examples of causes include *STEC*, *Salmonella*, and rotavirus.

If you think your child has Infectious Diarrhea:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare:

  Yes, until the child has been free of diarrhea for at least 24 hours. Follow "stay home" guidelines for specific organism if the child was tested and the cause is known.

  School:

  Yes, until the child has been free of diarrhea for at least 24 hours.

Symptoms

A child with infectious diarrhea may have bowel movements that are loose and runny compared to normal. There may be blood and/or mucus in the feces. Other symptoms may include a stomach ache, vomiting, and fever.

If your child is infected, it may take 1 day to 4 weeks (sometimes longer) for symptoms to start.

Spread

- By eating or drinking contaminated food or beverages.
- By touching contaminated hands, surfaces, or objects.

Contagious Period

The illness can spread as long as bacteria are in the feces.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms. There may be a medical test to detect the germ. Treatment may be available, depending on the germ that is causing diarrhea.
- ♦ Ask how to prevent dehydration. Your child may become dehydrated due to vomiting and diarrhea.

Prevention

- Wash hands after using the toilet or changing diapers and before preparing food or eating. Your child may need help with handwashing.
- Clean and disinfect any objects that come in contact with feces. This includes toilets (potty chairs), sinks, toys, and diaper changing areas. Use a product that kills bacteria, viruses and parasites.
- DO NOT use beaches, pools, water parks, spas, or hot tubs until 2 weeks after diarrhea has stopped.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

ENTEROVIRAL INFECTION

CAUSE Coxsackieviruses, echoviruses, or other enteroviruses.

SYMPTOMS Cold-like symptoms, sore throat, mouth sores, fever, rash, vomiting, and diarrhea are the most common symptoms. Some people may not have any symptoms.

These viruses often cause mild infections such as colds, sore throats, and intestinal illnesses. Less often enteroviruses cause pneumonia, meningitis, or encephalitis.

SPREAD Enteroviruses leave the body through the feces of an infected person and enter another person when hands, food, or objects (such as toys) contaminated with feces are placed in the mouth. Spread can occur when people do not wash their hands after using the toilet or changing diapers. Also, enteroviruses can be spread through droplets that are sent into the air from the nose and mouth of an infected person during sneezing, coughing, or vomiting and another person breathes them in.

INCUBATION It usually takes from 3 to 6 days from the time a person is exposed until symptoms begin except for acute hemorrhagic conjunctivitis which takes 24 to 72 hours.

CONTAGIOUS PERIOD During illness and possibly for several weeks after illness (through contact with feces). Infected persons who may not seem sick are able to spread infection.

EXCLUSION Childcare: Until the child has been free of diarrhea and/or vomiting for at least 24 hours for mild, cold-like symptoms: None, as long as the child is well enough to participate in routine activities.

School: None, unless the child is not feeling well and/or has diarrhea.

TREATMENT No specific treatment for these viruses. Vomiting and diarrhea may lead to dehydration, which may be a medical emergency. Ask a healthcare provider how to prevent dehydration.

PREVENTION AND CONTROL

- Cover nose and mouth with a tissue when sneezing and coughing or cough/sneeze into your sleeve. Dispose of used tissues.

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after using the toilet, changing diapers, touching nasal secretions, and before preparing or eating food. Staff should closely monitor or assist all children, as appropriate, with handwashing after children have used the bathroom or been diapered.

- Clean and disinfect diapering area and potty chairs after each use and bathroom toilets, sinks, and toys at least daily and when soiled. Clean and sanitize mouthed objects and surfaces at least daily and when soiled. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Enteroviruses

Enteroviruses cause a variety of illnesses.

If you think your child has an Enteroviral Infection:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare:

  Yes, until the child has been free of diarrhea and vomiting for at least 24 hours.

  School:

  No, unless the child is not feeling well and/or has diarrhea.

Symptoms

Your child may have cold-like symptoms with fever. Sore throat, mouth sores, rash, vomiting, and diarrhea are the most common symptoms.

If your child is infected, it may take 3 to 6 days for symptoms to start.

Spread

- By coughing or sneezing.
- By touching contaminated hands, surfaces, or objects.
- By eating or drinking contaminated food or beverages.

Contagious Period

During symptoms and as long as the virus is in the feces. This could be for several weeks.

Call your Healthcare Provider

- ♦ No specific treatment is available. Ask how to prevent dehydration. Your child may become dehydrated due to vomiting or diarrhea.

Prevention

- Cover nose and mouth when sneezing or coughing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with the secretions from the mouth or nose or with feces and before preparing food or eating. Your child may need help with handwashing.
- Clean and disinfect any objects that come in contact with feces or secretions from the nose or mouth. This includes toilets (potty chairs), sinks, toys, diaper changing areas, and surfaces. Use a product that kills viruses.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

FIFTH DISEASE

Fifth disease (also called parvovirus B19 infection) is a mild, common illness caused by a virus. Rash is the most common symptom. Immunity increases with age; 50% to 80% of adults are immune. Outbreaks of fifth disease frequently occur in childcare settings and schools.

CAUSE Human parvovirus B19.

SYMPTOMS Rash; possibly a low-grade fever or sore throat. The characteristic rash causes an intense redness of the cheeks (a "slapped cheek" appearance) in children. The rash often begins on the cheeks and is later found on the arms, upper body, buttocks, and legs; it has a very fine, lacy, pink appearance. In general, the rash on the face will fade within 4 days. The rash on the rest of the body initially fades within 3 to 7 days. However, the rash may come and go for days or even weeks, when the person is exposed to sunlight or heat. Adults, especially women, may have pain, redness and swelling of the joints. Joint pain and swelling may last 1-3 months.

Most people who get fifth disease do not become very ill. However, children with sickle cell anemia, chronic anemia, or a weakened immune system may become seriously ill and require medical care when infected with parvovirus B19.

SPREAD When an infected person coughs or sneezes. People can also become infected by touching these secretions and then touching their mouth, eyes, or nose.

INCUBATION It takes from 4 to 21 days, usually 4 to 14 days, from the time of infection until symptoms begin.

CONTAGIOUS PERIOD Most contagious before the beginning of the rash and unlikely to be contagious after the rash begins.

EXCLUSION Childcare and School: None, if other rash-causing illnesses are ruled out by a healthcare provider. Persons with fifth disease are no longer infectious once the rash begins.

DIAGNOSIS Lab (blood) tests are available to determine whether you are immune or are currently infected with parvovirus B19.

TREATMENT None.

PREVENTION/CONTROL

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after touching secretions from the nose or mouth.
- Cover nose and mouth with a tissue when coughing and sneezing or cough/sneeze into your sleeve. Dispose of used tissues.
- Notify your healthcare provider if you are pregnant or have a weakened immune system, sickle cell anemia, or other blood disorders and you have been exposed. If you do not know whether you are immune (have had fifth disease in the past), call your healthcare provider for advice and whether a blood test is needed.

INFORMATION FOR PREGNANT WOMEN/TEENS

Usually there are no serious problems for a pregnant woman or her baby because of an exposure to fifth disease. About 50% of women have already had fifth disease (are immune), so they and their babies are not at risk. Even if a woman is susceptible and gets infected with parvovirus B19, she usually experiences only mild illness. Likewise, her unborn baby usually does not have any problems caused by parvovirus B19 infection.

Rarely, parvovirus B19 infection will cause the unborn baby to have severe anemia and the woman may have a miscarriage. This occurs in fewer than 5% of all pregnant women who are infected with parvovirus B19 and happens more commonly during the first half of pregnancy. There is no evidence that parvovirus B19 infection causes birth defects or mental retardation. (For additional information on parvovirus B19 virus and pregnancy, see pgs 21-22)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Fifth Disease

Fifth Disease (Parvovirus) is a rash illness caused by a virus.

If you think your child has Fifth Disease:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  No, if other rash-causing illnesses are ruled out by a healthcare provider.

Symptoms

Your child may have a sore throat or a low-grade fever.

A rash that causes very red cheeks (a "slapped cheek" look) in children. The rash often begins on the cheeks and moves to the arms, upper body, buttocks, and legs. The rash looks very fine, lacy, and pink. It usually fades in 3 to 7 days. However, the rash may come and go for weeks, when your child is in the sunlight or heat.

If your child is infected, it may take 4 to 21 days for symptoms to start.

Spread

- By coughing or sneezing.
- By touching contaminated hands, surfaces, and objects.

Contagious Period

Until the rash appears.

Call your Healthcare Provider

- ♦ If your child has a weakened immune system, sickle cell anemia, or other blood disorders and has been exposed to someone with fifth disease.
- ♦ If you are a pregnant woman who is exposed to fifth disease. Your doctor will decide if a blood test is needed.

Prevention

- Cover nose and mouth when sneezing or coughing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with secretions from the nose or mouth. Your child may need help with handwashing.
- Clean and disinfect any objects that come in contact with secretions from the nose or mouth. Use a product that kills viruses.
- Any pregnant individuals in the home should consult their healthcare provider with regard to exposures.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

GIARDIASIS

Reportable to local or state health department

Consult the health department before posting/distributing Parent/Guardian fact sheet.

CAUSE *Giardia intestinalis (lamblia)*, a parasite.

SYMPTOMS Gas, stomach cramps and bloating, nausea, diarrhea (possibly ongoing or recurring), loss of appetite, and weight loss. Children who are infected often show no symptoms. Illness usually lasts between 2 to 6 weeks.

SPREAD *Giardia* parasites leave the body through the feces of an infected person and enter another person when hands, food, or objects (such as toys) contaminated with feces are placed in the mouth. Spread can occur when people do not wash their hands after using the toilet or changing diapers. Spread can occur whether or not a person feels sick.

INCUBATION It takes 1 to 4 weeks, usually 7 to 10 days, from the time a person is exposed until symptoms develop.

CONTAGIOUS PERIOD As long as *Giardia* parasites are present in the feces a person can pass the parasite on to other people. *Giardia* can be present in feces for several weeks or months after symptoms have stopped.

EXCLUSION Childcare: All symptomatic children, family members, and childcare workers infected with *Giardia intestinalis* should be treated. Persons with diarrhea should be excluded from childcare until they are free of diarrhea for at least 24 hours. Treatment of asymptomatic carriers is not recommended. Children who have *Giardia* in their feces but who have no symptoms do not need to be excluded.

School: None, unless the child is not feeling well and/or has diarrhea. Further exclusion may be necessary during outbreaks.

No one with *Giardia* should use swimming beaches, pools, water parks, spas, or hot tubs for 2 weeks after diarrhea has stopped.

Symptomatic staff with *Giardia* should be restricted from working in food service.

DIAGNOSIS Recommend parents/guardians call their healthcare provider if their child has symptoms of giardiasis. There is a lab test to detect *Giardia* in the feces.

TREATMENT Treatment is available. Vomiting and diarrhea may lead to dehydration, which may be a medical emergency. Ask a healthcare provider how to prevent dehydration.

PREVENTION/CONTROL

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after using the toilet and changing diapers and before preparing or eating food. Staff should closely monitor or assist all children, as appropriate, with handwashing after children have used the bathroom or been diapered.

- Restrict students from sharing any communal food items that are brought from home. In the classroom, children should not serve themselves food items that are not individually wrapped. The teacher should hand out these items after washing his/her hands. (This is not intended to discourage family-style serving in the absence of an outbreak.)

- DO NOT allow children to swallow water when swimming in lakes or swimming pools, using hot tubs, or playing in fountains.

- Clean and disinfect diapering area and potty chairs after each use and bathroom toilets, sinks, and toys at least daily and when soiled.
(See pgs 35-41)

- Clean and disinfect mouthed objects or surfaces at least daily and when soiled.
(See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Giardiasis

Giardiasis is an infection of the intestines caused by a parasite.

If you think your child has Giardiasis:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare:

  Yes, for 24 hours after treatment has been started and until the child has been free of diarrhea for at least 24 hours.

  School:

  No, unless the child is not feeling well and/or has diarrhea.

Anyone with giardiasis should not use swimming beaches, pools, water parks, spas, or hot tubs for 2 weeks after diarrhea has stopped.

Symptoms

Your child may have gas, stomach cramps, bloating, and diarrhea. They may not be hungry and may lose weight. Illness usually lasts between 2 to 6 weeks.

If your child is infected, it may take 1 to 4 weeks (usually 7 to 10 days) for symptoms to start.

Spread

- By eating or drinking contaminated food or beverages.
- By touching contaminated hands, surfaces, or objects.

Contagious Period

The illness can spread as long as *Giardia* parasites are in the feces. This could be for several weeks or months.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms. There is a medical test to detect the parasite. Treatment is available.
- ♦ Ask how to prevent dehydration. Your child may become dehydrated due to vomiting or diarrhea.

Prevention

- Wash hands after using the toilet and changing diapers and before preparing food or eating. Your child may need help with handwashing.
- Clean and disinfect any objects that come in contact with feces. This includes toilets (potty chairs), sinks, toys, and diaper changing areas. Use a product that kills parasites.
- DO NOT swallow water when swimming in lakes, swimming pools, water parks, hot tubs, or fountains. Spread can occur through contaminated water.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

HA*EHAEMOPHILUS INFLUENZAE* TYPE B (HIB) DISEASE

Reportable to local or state health department

Consult the health department before posting/distributing Parent/Guardian fact sheet.

Haemophilus influenzae type b (Hib) can cause a number of serious illnesses, but it is not related to influenza or "stomach flu". The number of infections in children has dropped due to use of the Hib vaccine.

CAUSE *Haemophilus influenzae* type b bacteria.

SYMPTOMS

Meningitis - Unusual sleepiness, fever, stiff neck, vomiting, headache, irritability, lack of appetite.

Cellulitis - A tender, rapid swelling of the skin, usually on the cheek or around the eye; may also have an ear infection on the same side; also a low-grade fever.

Epiglottitis - Fever, trouble swallowing, tiredness, difficult and rapid breathing (often confused with viral croup, which is a milder infection and lasts longer).

Pneumonia - Fever, cough, chest pains, difficulty breathing.

Bacteremia - Sudden onset of fever, chills, tiredness, irritability.

Arthritis - Swelling, redness, and loss of movement in the joints.

Children age 2 and under are most likely to develop these infections. Invasive disease most commonly occurs in children who are too young to have completed their vaccination series.

SPREAD When a person with Hib disease coughs or sneezes, tiny droplets containing Haemophilus influenzae type b bacteria are created and spreads into the air. Another person breathes them in. A person can also get infected from touching these secretions and then touching their mouth, eyes, or nose.

INCUBATION Unknown; probably short, about 2 to 4 days from the time a person is exposed until symptoms begin.

CONTAGIOUS PERIOD Until 24 to 48 hours after effective treatment begins.

EXCLUSION Childcare: Until the child has been treated and is well enough to participate in routine activities.

DIAGNOSIS Recommend parents/guardians call their healthcare provider immediately if their child develops fever or any other symptoms. There are lab tests to detect *Haemophilus*.

TREATMENT Hib disease can be treated with antibiotics. Immediate treatment is necessary to prevent lasting damage or death.

PREVENTION/CONTROL

- All infants should receive Hib vaccine as part of their routine vaccination schedule. All children between the ages of 2 months and 5 years who are in a licensed childcare setting are required to have Hib vaccine or they must have a legal exemption.

- Public health will make recommendations if exposed persons need to receive antibiotics and/or vaccine.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Haemophilus Influenzae Type b

Haemophilus influenzae type b (Hib) bacteria can cause a number of serious illnesses. It is not related to influenza or "stomach flu". Infection with Hib is extremely rare if your child has received the Hib vaccine.

If you think your child has Hib:

- Tell your childcare provider.
- **Need to stay home?**

  Childcare:

  Yes, until the child has been treated and is healthy enough for routine activities.

Symptoms

Your child may have a fever with any of these conditions.

Meningitis - Your child may be tired, fussy and not want to eat. They may also have a stiff neck, vomiting, and headache.

Cellulitis - Look for swollen skin, usually on the cheek or around the eye. Your child may also have an ear infection on the same side.

Epiglottitis - Your child may be tired. It may be hard for your child to swallow and to breathe.

If your child has been infected, it may take 2 to 4 days for symptoms to start.

Spread

- By sneezing or coughing.
- By touching contaminated hands, surfaces, or objects.

Contagious Period

Until 24 to 48 hours after effective treatment begins.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms of Hib. Your doctor may want to test for the bacteria and provide treatment.

Prevention

- Cover nose and mouth when sneezing or coughing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with secretions from the nose or mouth. Your child may need help with handwashing.
- Clean and disinfect anything contaminated with secretions from the nose or mouth. Use a product that kills bacteria.
- All children between the ages of 2 months and 5 years who are in a licensed childcare setting must have Hib vaccine or a legal exemption.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

HAND, FOOT, AND MOUTH DISEASE

Hand, foot, and mouth disease is a viral infection that causes a blister-like rash involving the hands, feet, and mouth. The infection occurs most commonly in children less than 10 years of age and most often in the summer and fall months. Outbreaks may occur in childcare settings and preschools.

CAUSE Coxsackievirus, most often A16 (an enterovirus).

SYMPTOMS Low-grade fever lasting 1 to 2 days, runny nose, and/or sore throat. Blister-like rash occurs in the mouth, on the sides of the tongue, inside the cheeks, and on the gums. These sores may last 7 to 10 days. Blister-like rash may occur on the palms and fingers of the hands and on the soles of the feet. The disease is usually self-limited, but in rare cases has been fatal in infants.

SPREAD The viruses leave the body through the feces of an infected person and enter another person when hands, food, or objects (such as toys) contaminated with feces are placed in the mouth. It also is spread through droplets that are expelled from the nose and mouth of an infected person during sneezing and coughing and by direct contact with respiratory secretions.

INCUBATION It usually takes 3 to 6 days after exposure for symptoms to begin.

CONTAGIOUS PERIOD During the first week of illness and possibly for several weeks after illness. Virus may be shed for several weeks in feces. Infected persons who may not seem sick are able to spread the virus.

EXCLUSION Childcare and School: Until fever is gone and child is well enough to participate in routine activities (sores or rash may still be present).

TREATMENT No specific treatment.

PREVENTION/CONTROL

- Cover nose and mouth with a tissue when coughing and sneezing or cough/sneeze into your sleeve. Dispose of used tissues.

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after using the bathroom, after changing diapers, after handling anything soiled with feces or secretions from the nose or mouth, and before preparing food or eating. Staff should closely monitor or assist all children, as appropriate, with handwashing after children have used the bathroom or been diapered.

- Clean and disinfect diapering area and potty chairs after each use and bathroom toilets, sinks, and toys at least daily and when soiled. Clean and sanitize mouthed objects and surfaces at least daily and when soiled. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Hand, Foot, and Mouth Disease

Hand, foot, and mouth disease is a viral infection that causes a blister-like rash.

If you think your child has Hand, Foot, and Mouth Disease:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  Yes, until fever is gone and child is healthy enough for routine activities. Sores or a rash may still be present.

Symptoms

Your child may have a runny nose, low-grade fever, and sometimes a sore throat.

A blister-like rash occurs in the mouth. It may be on the sides of the tongue, inside the cheeks, and on the gums. These sores may last 7 to 10 days. This rash may occur on the palms and fingers of the hands and on the bottom of the feet.

If your child is infected, it may take 3 to 6 days for symptoms to start.

Spread

- By coughing and sneezing.
- By touching contaminated hands, surfaces, and objects.

Contagious Period

During the first week of illness. The virus may be in the feces for several weeks.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms.

Prevention

- Cover nose and mouth when sneezing or coughing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with feces or secretions from the nose or mouth and before preparing food or eating. Your child may need help with handwashing.
- Clean and disinfect any objects that come in contact with feces or secretions from the nose or mouth. This includes toilets (potty chairs), sinks, mouthed toys, and diaper changing areas. Use a product that kills viruses.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

HEAD LICE

Head lice infestations are a common problem for children in childcare settings and schools. Anyone can get head lice. There are two other kinds of lice that infest people, but they do not live on the head. Parents should check their child(ren) for head lice regularly. If they find lice or eggs, use the information provided below.

CAUSE *Pediculus humanus capitis*, a louse.

Head lice are very small (less than 1/8" long, about this size [--]), brownish-colored insects that live on human heads and lay their eggs (nits) close to the scalp. The eggs are tiny (about the size of the eye of a small needle) and gray or white in color. Adult lice move fast and do not like light.

SYMPTOMS Itching of the head and neck. Look for: 1) crawling lice in the hair, usually few in number; 2) eggs (nits) glued to the hair, often found behind the ears and at the back of the neck; and 3) scratch marks on the head or back of the neck at the hairline.

SPREAD Lice are spread by head-to-head contact and by sharing personal items such as combs (especially on picture day), sports head gear, brushes, barrettes, hats, scarves, jackets, blankets, sheets, pillowcases, stuffed animals, play activity clothes, and hats. Head lice may be spread during sleepovers.

Lice do not jump or fly; they crawl and can fall off the head. Head lice do not live longer than 48 hours off the head. They only lay their eggs while on the head. Nits which are more than ½" from the scalp are dead or empty and will not hatch. The eggs do not hatch if they fall off the head. Lice do not spread to or from pets.

INCUBATION It takes 7 to 10 days from when the eggs are laid until they hatch.

CONTAGIOUS PERIOD Until treated with a lice treatment product.

EXCLUSION Childcare and School: Until first treatment is completed and no live lice are seen. Nits are NOT considered live lice. Children do not need to be sent home immediately if lice are detected; however they should not return until effective treatment is given.

TREATMENT

- Call a healthcare provider or pharmacist for advice. Recommended treatment includes using either an over-the-counter (OTC) or prescription medicated (lice killing) product. Use products that contain permethrin or a pyrethrin-based shampoo. Refer to the Centers for Disease Control and Prevention (http://www.cdc.gov/lice/head/) for the most current head lice treatment guidelines.

- Follow the product directions carefully (especially the **amount of product to use, length of time on the hair, and whether to use on dry or damp hair**). Directions will vary, depending on the product used.

- With certain products a second treatment is recommended 7 to 10 days later to kill any lice that may have hatched after the first treatment.

- It may take 24 hours for products to kill lice.

TREATMENT (CONTINUED)

- Lice treatment products are not 100% effective in killing lice, especially nits. Removing the nits (nitpicking) is an essential part of the treatment for controlling the spread of head lice. The nits are glued onto the hair shaft as they are laid and require effort to remove. To remove the nits, use a metal nit comb, cat flea comb, or your fingernails to slide eggs off the hair shafts, or use scissors to cut the hair shafts that have nits glued to them. Continue checking the head and combing hair daily for 2 weeks. If all nits within ½" of the scalp are not removed, some may hatch and the child will be infested again. **Remember: it takes at least 2 weeks to get rid of lice.**

- Check all household members for head lice. Treat only household members with head lice, and treat all at the same time.

- Many alternatives to OTC or prescription head lice control products have been suggested. CDC does not have clear scientific evidence to determine if suffocation of head lice with mayonnaise, olive oil, margarine, butter, or similar substances is an effective form of treatment.

PREVENTION/CONTROL

- DO NOT share combs, brushes, other hair grooming items and other hair accessories (barrettes, etc.), towels, bedding, clothing, hats, and headgear, such as personal headphones and sports helmets.

- Hang coats, jackets, and caps in individual lockers or on assigned coat hooks. If this is not possible, put the clothing in separate plastic bags. Bedding, when not in use for naptime, can be stored in individual plastic bags or storage boxes.

- Parents should check their child's head frequently throughout the year. If one person in a household, childcare, school, etc., has head lice, others should be checked too. Sleepovers are a common setting in which head lice are spread. When a child returns from a sleepover, check the child's head and launder any bedding that they brought home.

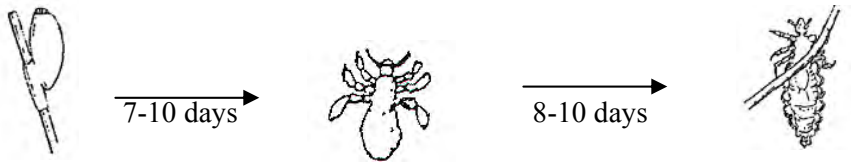
- Clean all combs, brushes, other hair grooming items and accessories (barrettes, etc.) by doing one of the following:
  - soaking in the lice treatment product for 10 minutes.
  - cleaning with hot soapy water.
  - boiling for 5 minutes.

- Vacuum carpets, upholstered furniture, mattresses, and seats in the car(s) thoroughly. **Insecticide sprays are NOT recommended** because this will expose household members to unnecessary pesticides and most viable lice are found on the head, not in the environment.

PREVENTION/CONTROL (CONTINUED)

- Wash clothing worn in the last 3 days (e.g., jackets, hats, scarves, pajamas), bedding, and towels in hot (130^0 F or higher) water and dry in a hot dryer for at least 20 minutes before using again. Clothing or backpacks that cannot be washed or dried, linens, and stuffed toys can be dry cleaned or sealed in plastic bags for 2 weeks.

HEAD LICE LIFE CYCLE



NIT **NYMPH** **ADULT** Lays 4-5 nits/day

How to Remove Nits

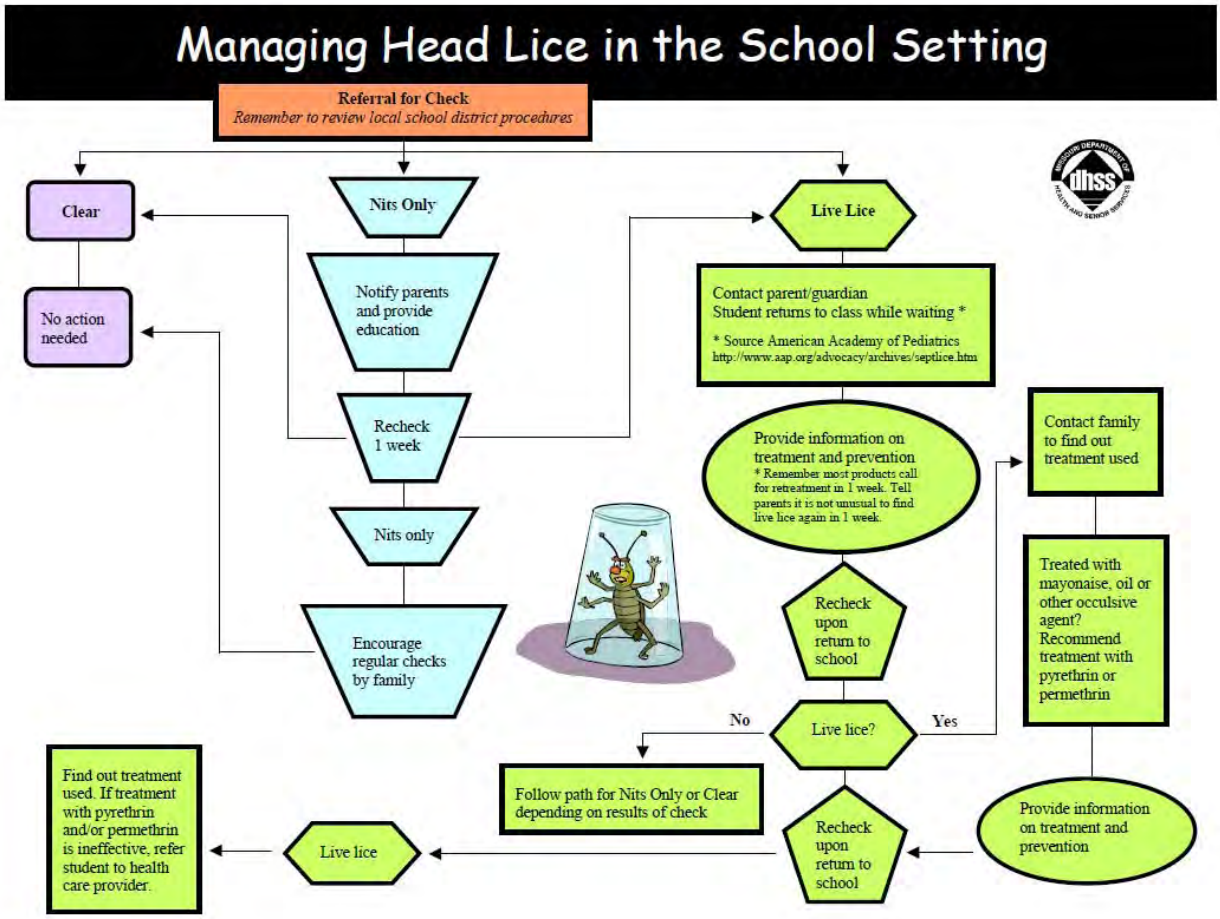
Work in a well lit room or under a bright lamp (using a magnifying glass may help you see the nits)

- Divide the hair into 4 parts and divide each part into 1-inch sections.
- Starting at the scalp, use a metal nit comb, cat flea comb, or your fingernails to comb each hair section individually.
- Use the comb or your fingernail to slide eggs off the hair shaft or use scissors to cut hair shafts that have nits glued to them.
- Remove all nits each time you comb the hair.
- REMEMBER: **it can take at least 2 weeks to get rid of lice.**

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

More information about head lice can be found on the Centers for Disease Control and Prevention website at: http://www.cdc.gov/lice/head.

A flowchart has been developed for your use in determining appropriate actions to take in a school setting. The DHSS Head Lice Management Flowchart can be found at: http://dhss.mo.gov/living/families/schoolhealth/presentations.php. Below is a copy of that flowchart.



Your child may have been exposed to:

Head Lice

Anyone can get head lice. Head lice are very small brownish-colored insects that live on the head. They are less than 1/8" long, about this size [--]. They lay eggs (nits) close to the scalp. The eggs are tiny (size of the eye of a small needle) and gray or white in color.

If you think your child has Head Lice:

- Tell your childcare provider or call the school.
- Treat your child for head lice and check child's head and remove nits daily. **It takes at least 2 weeks to get rid of lice.**

  If all nits within ½" of the scalp are not removed, some may hatch and your child will be infested again.
- Check everyone in the house for head lice. Treat only household members with head lice, and treat them all at once.
- **Need to stay home?**

  <u>Childcare and School</u>:

  Yes, until first treatment is completed **and** no live lice are seen. Nits are NOT considered live lice.

Symptoms

Itching of the head and neck. Look for: 1) crawling lice in the hair, usually there aren't very many; 2) eggs (nits) glued to the hair, often found behind the ears and at the back of the neck; and 3) scratch marks on the head or back of the neck at the hairline.

If your child is infested with lice it will take 7 to 10 days from when the eggs are laid until they hatch.

Spread

- By head-to-head contact. Check your child for lice often.

  Lice do not jump or fly; they crawl and can fall off the head. Head lice do not live longer than 48 hours off the head. They only lay their eggs while on the head. The eggs do not hatch if they fall off the head. Lice do not spread to or from pets.

Contagious Period

Until treated with a lice killing product.

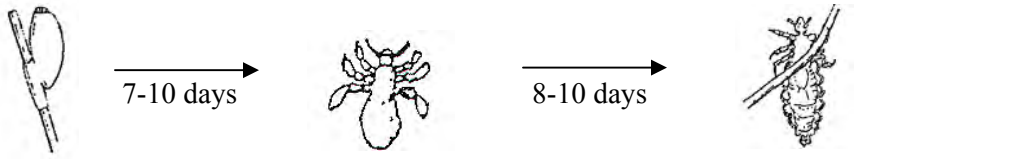
Call your Healthcare Provider

- ♦ Call your healthcare provider or pharmacy for advice. Recommended treatment includes using either a prescription or store-bought lice killing product.
- ♦ Follow the product directions carefully. With certain products a second treatment is recommended 7 to 10 days later. Lice treatment products are not 100% effective in killing lice, especially nits.
- ♦ **Removing the nits (nitpicking) is a very important part of the treatment for controlling head lice**. The nits are glued onto the hair shaft as they are laid, and require effort to remove. To remove the nits, use a metal nit comb, cat flea comb, or your fingernails to slide eggs off the hair shafts, or use scissors to cut the hair shafts that have nits glued to them. **Continue checking the head and combing hair daily for 2 weeks.** If all nits within ½" of the scalp are not removed, some may hatch and your child will get head lice again.

Prevention

- Never share hair grooming items and hair accessories (barrettes, combs, brushes, etc.). Clean all hair items by soaking in the lice treatment product for 10 minutes or cleaning with hot, soapy or boiling water for 5 minutes.
- Never share towels, bedding, clothing, hats, and headgear.
- Check your child's head every month. If one person in the home has head lice, others should be checked too. Sleepovers are a common place for head lice to spread. Check your child's head after a sleepover and wash all bedding brought home from the sleepover.
- Vacuum carpets, upholstered furniture, mattresses, and seats in the car(s) thoroughly. **Insecticide sprays are NOT recommended** because this will expose household members to unnecessary pesticides.
- Wash clothing worn in the last 3 days (e.g., jackets, hats, scarves, pajamas) bedding, and towels in hot water and dry in a hot dryer for at least 20 minutes before using again. Clothing, stuffed toys, linens or backpacks that cannot be washed or dried can be dry cleaned or sealed in plastic for 2 weeks.

HEAD LICE LIFE CYCLE



NIT **NYMPH** **ADULT** Lays 4-5 nits/day

How to Remove Nits

Work in a well lit room or under a bright lamp (using a magnifying glass may help you see the nits)

- Divide the hair into 4 parts and divide each part into 1-inch sections.
- Stating at the scalp, use a metal nit comb, cat flea comb, or your fingernails to comb each hair section individually.
- Use the comb or your fingernail to slide eggs off the hair shaft or use scissors to cut hair shafts that have nits glued to them.
- Remove all nits each time you comb the hair.
- REMEMBER: **it can take at least 2 weeks to get rid of lice.**

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

More information about head lice can be found at: http://www.cdc.gov/lice/head .

HEPATITIS A

Reportable to local or state health department

Consult the health department before posting/distributing Parent/Guardian fact sheet.

Hepatitis A is an infection of the liver. It is the most common form of hepatitis infection in the United States. Among reported cases, the most frequent source of infection is household or sexual contact with a person who has hepatitis A, followed by attending or working in childcare settings, recent international travel, or connection with suspected food or waterborne outbreaks.

CAUSE Hepatitis A virus.

SYMPTOMS Usually starts suddenly with fever, tiredness, loss of appetite, and nausea. Dark (tea or cola-colored) urine, light-colored feces, and jaundice (yellowing of eyes or skin) may appear a few days later. Most children younger than 6 years of age, (70%) do not show symptoms. Older children and adults with hepatitis A usually have symptoms, often including jaundice.

SPREAD Hepatitis A viruses leave the body through the feces of an infected person and enter another person when hands, food, or objects (such as toys) contaminated with feces are placed in the mouth. Spread can occur either by person-to-person contact or when people do not wash their hands after using the toilet or changing diapers and later prepare/handle food.

Children may pass the virus to household members or childcare staff without ever having symptoms.

INCUBATION It takes from 15 to 50 days, usually about 28 days, from the time a person is exposed to the virus until symptoms begin.

CONTAGIOUS PERIOD From 2 weeks before to 2 weeks after symptoms begin. Minimal risk one week after the onset of jaundice.

EXCLUSION Childcare and School: Consult with your local or state health department. Each situation must be looked at individually to decide if the person with hepatitis A can spread the virus to others.

DIAGNOSIS A blood test (Hepatitis A IgM antibody test) is done to determine whether there is recent or current infection.

TREATMENT No specific medication is given to the person with hepatitis A.

PREVENTION/CONTROL

- Hepatitis A vaccine is recommended for all children 12 to 23 months of age and should be considered for groups at increased risk for hepatitis. Those persons include international travelers, men who have sex with men, illicit drug users, and persons with occupational risk. Vaccine should also be considered for those with chronic liver disease because they are at increased risk for severe problems.

PREVENTION/CONTROL (CONTINUED)

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after using the toilet and changing diapers and before preparing or eating food. Staff should closely monitor or assist all children, as appropriate, with handwashing after children have used the bathroom or been diapered.

- Restrict students from sharing any communal food items that are brought from home. In the classroom, children should not serve themselves food items that are not individually wrapped. The teacher should hand out these items after washing his/her hands. (This is not intended to discourage family-style serving in the absence of an outbreak).

- Clean and disinfect diapering area and potty chairs after each use and bathroom toilets, sinks, and toys when soiled and at least daily. (See pgs 35-41)

- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. (See pgs 35-41)

- If there is a case of hepatitis A in a childcare or school, consult with the local or state health department. They will determine who has been exposed and make recommendations.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Hepatitis A

Hepatitis A is a viral infection of the liver.

If you think your child has Hepatitis A:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  Consult with your local or state health department. Each situation must be looked at individually to decide if the person with hepatitis A can spread the virus to others.

Symptoms

Your child may suddenly have a fever and may be tired and not want to eat.

A few days later, your child may have urine that is as dark as tea or cola. Feces may be white or gray-colored. Your child may appear jaundiced (yellowing of eyes or skin).

If your child is infected, it may take 15 to 50 days for symptoms to start. It usually takes 28 days.

Spread

- By eating or drinking contaminated food or water.
- By touching contaminated hands, surfaces, or objects.

Contagious Period

From 2 weeks before to 2 weeks after symptoms start.

Call your Healthcare Provider

If someone in your home:

- ♦ has symptoms of hepatitis A. Blood tests can be done. No specific treatment is given.
- ♦ has been exposed to hepatitis A.

Prevention

- Wash hands after using the toilet and changing diapers and before preparing food or eating. Your child may need help with handwashing.
- Clean and disinfect anything contaminated with feces. This includes toilets (potty chairs), sinks, toys, and diaper changing areas. Use a product that kills viruses.
- Ask your healthcare provider about hepatitis A vaccine. Hepatitis A vaccine is recommended for all children 12 to 23 months of age and should be considered for groups at increased risk of hepatitis A.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

HEPATITIS B

Reportable to local or state health department

This fact sheet is for provider information only.
If you have questions, please call the health department.

It is rare for children to be infected with hepatitis B with the exception of those children infected by their mothers during pregnancy or childbirth. These children may have a lifelong infection (chronic infection). Children who have chronic hepatitis B infection may be attending childcare or school; however, spread of hepatitis B in these settings is very rare.

CAUSE Hepatitis B virus.

SYMPTOMS Loss of appetite, tiredness, stomach pain, nausea, vomiting, dark (tea or cola-colored) urine, light-colored fecess, and sometime rash or joint pain. Jaundice (yellowing of eyes or skin) may be present in adults but it is uncommon in young children. Symptoms vary greatly from none at all to severe illness. Adults have symptoms more often than children.

SPREAD Virus is present in the blood and other body fluids that may contain blood. It can be spread person-to-person when blood from an infected person enters an open cut or splashes into the eye or mouth of another person, by sharing any equipment to inject drugs or puncture the skin, such as tattooing or body piercing, or through sexual contact. Although virus can be found in saliva, the amount of virus in the saliva is so low that spread is very unlikely. It can also be spread from a mother to her baby during pregnancy or childbirth.

INCUBATION It takes from 6 weeks to 6 months, usually 2 to 3 months, from the time a person is exposed to hepatitis B virus until disease occurs.

CONTAGIOUS PERIOD May be infectious for many weeks before onset of symptoms and remain infectious for 4 to 6 months. Some people may have chronic hepatitis B infection and may be infectious for life.

EXCLUSION Children with Hepatitis B infection should not be excluded from school, childcare, or other group care settings solely based on their Hepatitis B infection. Any child, regardless of known Hepatitis B status, who has a condition such as oozing sores that cannot be covered, bleeding problems, or unusually aggressive behavior (e.g., biting) that cannot be controlled may merit assessment by the child's health professional and the child care program director or school principal to see whether the child may attend while the condition is present.

DIAGNOSIS Hepatitis B can be diagnosed through blood tests.

TREATMENT Recommend parents/guardians call their healthcare provider.

PREVENTION/CONTROL

- All children should receive the three dose hepatitis B vaccine series as part of their routine immunizations.

PREVENTION/CONTROL (CONTINUED)

- Childcare providers/school staff should discuss the need for hepatitis B vaccine with their healthcare provider.

- Hepatitis B vaccine is recommended for unvaccinated adolescents and adults who are at risk for exposure to bloodborne pathogens in their work or personal life.

- Persons exposed to blood or bloody body fluids from an infected person should contact their healthcare provider or the local or state health department immediately regarding the possible need for hepatitis B immune globulin (HBIG) and hepatitis B vaccine.

- Cleaning and disinfecting of blood and body fluid spills: (See pg 37)

  - Surfaces and objects contaminated with blood or bloody body fluids must be cleaned with soap or detergent and water and then disinfected immediately. Hepatitis B virus, as well as other infectious bacteria, may be found in the blood and other bloody body fluids of any person, even when there are no symptoms to suggest infection is present.

  - Wear disposable medical gloves when handling blood (nosebleeds, cuts) or items, surfaces, or clothing soiled by blood or bloody body fluids, or when there are open sores, cuts, or abrasions on the hands.

  - **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands immediately after contact with any body fluids, even if gloves have been worn. Wash hands thoroughly with soap and warm running water.

- DO NOT allow sharing of toothbrushes, nail clippers, or razors.

- Encourage students and staff to do self-care when age appropriate.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 (8-5 Monday thru Friday), or call your local health department, or call MDHSS' Bureau of HIV, STD, and Hepatitis: Telephone: 573-751-6439 or Toll-free 866-628-9891.

HEPATITIS C

Reportable to local or state health department

This fact sheet is for provider information only.
If you have questions, please call the health department.

It is rare for children to be infected with hepatitis C, the exception may be those children infected by their mothers during childbirth and children who received blood products before July 1992. Most persons infected with hepatitis C develop lifelong infection (chronic infection). While children infected with hepatitis C may be attending childcare or schools, spread of hepatitis C in these settings has not been documented.

CAUSE Hepatitis C virus.

SYMPTOMS Young children infected with hepatitis C would most likely not have symptoms. Only 20% of adults have symptoms when first infected. These symptoms may include fatigue, abdominal pain, and jaundice (yellowing of eyes or skin). Adults may not have symptoms until after 10 to 30 years of chronic (lifelong) infection.

SPREAD Virus is present in the blood and other body fluids that may contain blood. It can be spread person to person when blood from an infected person enters an open cut of another person or by sharing equipment to inject drugs or puncture the skin, such as tattooing or body piercing. Sexual transmission can occur but is less likely. Hepatitis C is not spread by kissing or casual contact. Spread among household contacts is uncommon. The risk of spread from an infected mother to a newborn is low.

INCUBATION It takes from 2 weeks to 6 months, usually about 6 to 7 weeks, from the time a person is exposed to hepatitis C virus until disease occurs.

CONTAGIOUS PERIOD As long as the person has hepatitis C virus present in the blood. About 80% of persons who get hepatitis C will have lifelong (chronic) infection.

EXCLUSION Children with Hepatitis C infection should not be excluded from school, childcare, or other group care settings solely based on their Hepatitis C infection. Any child, regardless of known Hepatitis C status, who has a condition such as oozing sores that cannot be covered, bleeding problems, or unusually aggressive behavior (e.g., biting) that cannot be controlled may merit assessment by the child's health professional and the child care program director or school principal to see whether the child may attend while the condition is present.

DIAGNOSIS Hepatitis C can be diagnosed through blood tests.

Persons exposed to blood or bloody body fluids from an infected person should call their healthcare provider immediately regarding blood testing.

TREATMENT There is no vaccine to protect against hepatitis C. People infected with hepatitis C should be vaccinated against hepatitis A, and all children should be vaccinated against hepatitis B.

PREVENTION/CONTROL

- Cleaning and disinfecting of blood and body fluid spills: (See pg 37)

  - Surfaces and objects contaminated with blood or bloody body fluids must be cleaned with soap or detergent and water and then disinfected immediately. Hepatitis C virus, as well as other infectious bacteria, may be found in blood and other bloody body fluids of any person, even when there are no symptoms to suggest infection is present.

  - Wear disposable medical gloves when handling blood (nosebleeds, cuts) or items, surfaces, or clothing soiled by blood or bloody body fluids, or when there are open sores, cuts, or abrasions on the hands.

  - **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands immediately after contact with any body fluids, even if gloves have been worn. Wash hands thoroughly with soap and warm running water.

- DO NOT allow sharing of toothbrushes, nail clippers, or razors.

- Encourage students and staff to do self-care when appropriate.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 (8-5 Monday thru Friday), or call your local health department, or call MDHSS' Bureau of HIV, STD, and Hepatitis: Telephone: 573-751-6439 or Toll-free 866-628-9891.

HERPES GLADIATORUM

(Herpes on Skin)

CAUSE Herpes simplex virus type 1 (HSV-1).

SYMPTOMS The most obvious symptom is a cluster of blisters (fluid-filled bumps) on exposed areas of the body (typically the head, neck and shoulders). Fever, sore throat, swollen lymph nodes, or burning or tingling of the skin may be present in the 24 hours before the blisters appear. Blisters will eventually scab and crust. *Herpes gladiatorum* infections can recur throughout life.

SPREAD Extremely contagious by skin-to-skin contact during athletic competition involving close physical contact and frequent skin abrasions (e.g., wrestling, rugby). Abrasions and other skin conditions increase the chance of getting the infection. Saliva of persons may also contain the virus and even people without symptoms can spread it to others. Surfaces and/or objects like mats, floors, locker room surfaces, equipment, and clothing are not likely causes of infection.

INCUBATION It takes from 2 to 14 days, usually 8 days, from the time a person is exposed for the first time until symptoms develop.

CONTAGIOUS PERIOD Most often while blisters and sores are present and unhealed. However, people without symptoms may also be contagious.

EXCLUSION Contact Sports: Exclude from practice and competition until all sores are dry and scabbed. Treatment with oral medication may shorten exclusion time. Follow the athlete's healthcare provider's recommendations and specific sports league rules for when the athlete can return to practice and competition.

TREATMENT Recommend parents call their healthcare provider. Antiviral medications can shorten the duration of infection. They are not effective after blisters have opened.

PREVENTION/CONTROL

Coaches and trainers

- Examine athletes for undiagnosed rashes, blisters, or sores on exposed areas of the body and around the eyes or mouth before practice or competition.
- Check the specific sports league rules for when athlete can return to practice and competition.
- Instruct athletes to report blisters and/or sores.
- Instruct athletes to report any burning or tingling if it occurs at the prior site of infection.

Coaches and Trainers ensure athletes follow these hygiene measures

Showering

- Shower at school after practice or competition, using liquid soap and water.
- Have their own plastic bottle of liquid soap.
- Have their own towel. DO NOT allow anyone to share towels.
- Wash their towels after each use, using hot water with detergent (and bleach if possible); and dry on high heat setting.

PREVENTION/CONTROL (CONTINUED)

General hygiene

- Clean their hands often! Scrub up for at least 15 seconds using soap and warm water. Use an alcohol-based hand rub if their hands are not visibly soiled.
- Encourage them to avoid touching their eyes, nose, or mouth.
- Have them clean their hands before and after practice and competitions.
- DO NOT let them pick or squeeze skin sores as the drainage is very infectious.

Equipment and clothing

- Change their practice and competition clothing every day.
- Clean their equipment daily according to manufacturer's directions.

School - Have written procedures for cleaning and disinfecting* the environment.

- Wash mats after every practice or competition.
- Clean and disinfect locker rooms and shower areas daily.
- Launder mop heads and cleaning cloths daily using laundry detergent in hot water and dry on high heat setting.

* Always use an EPA-approved disinfectant* (viricidal, fungicidal, bactericidal) according to manufacturer recommendations OR bleach solution (800 ppm = ¼ cup bleach into 1 gallon of water). Mix daily.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Material adapted from the Minnesota Department of Health.

Your child may have been exposed to:

Herpes Gladiatorum

Herpes gladiatorum is a viral skin infection that occurs frequently among wrestlers. It is not a sexually transmitted disease.

If you think your child has Herpes Gladiatorum:

- Tell the coaches and school health staff.

No Contact Sports:

Until all sores are dry and scabbed. Follow your healthcare provider recommendations and the specific sports league rules about when to return to practice and competition.

Symptoms

A single blister or a cluster of blisters (fluid-filled bumps) may be the only symptom. The bumps are usually on exposed areas of the head, neck, and shoulders. Sometimes, fever, sore throat, swollen lymph nodes or burning or tingling of the skin may be present before the blisters appear. Blisters will eventually scab and crust.

If your child is infected, it may take 2 to 14 days for symptoms to start.

Spread

- By skin to skin contact or touching saliva. Usually spreads during sports with close physical contact or during sports that tend to cause skin abrasions.

Contagious Period

Until all sores are dry and scabbed. *Herpes gladiatorum* infections can recur throughout life.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms. Your doctor will decide what treatment is needed.

Prevention

Inform parents/guardians and coaching staff:

- If you have blisters and/or sores.
- If you have had this infection before and develop burning or tingling at the site where the infection was before.

General Hygiene:

- DO NOT pick or squeeze skin sores; drainage is very infectious.
- Avoid touching your eyes, nose, or mouth with your hands.
- Clean your hands with warm water and liquid soap before and after practice and competitions.
- **Shower at school after practice or competition.** Use your own plastic bottle of liquid soap. Wash your towel after each use, using hot water with detergent (and bleach if possible); and dry on high heat setting.
- **Change clothes and clean equipment daily.** Clean equipment with the same soap you use for showering.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

HERPES, ORAL

Commonly, these infections are acquired for the first time in early childhood and may reappear throughout a person's lifetime (recurrent infection).

CAUSE Herpes simplex virus type 1 (HSV-1).

SYMPTOMS Primary infection causes blister-like sores inside the mouth (gingivostomatitis) and on the gums. Fever and irritability may also occur. Recurrent infections (cold sores, fever blisters) appear on lips and face. Some children may have the virus in their bodies, but do not develop symptoms. Herpes simplex virus can also cause infections of the eyes, fingers, and central nervous system.

SPREAD By close person-to-person contact, such as through direct contact with saliva (e.g., kissing) or touching the fluid from the blisters or sores.

Most experts believe that herpes is not spread from lipsticks, towels, washcloths, drinking glasses, or toys. However, to prevent spread of other infectious bacteria, personal items should not be shared.

INCUBATION It takes 2 to 14 days from the time a person is exposed for the first time until symptoms occur.

CONTAGIOUS PERIOD First occurrence (primary infection): up to 2 weeks, occasionally up to 7 weeks.
Recurrent infection: usually 3 to 5 days.

EXCLUSION Childcare: Primary infection - until those children who do not have control of their oral secretions no longer have active sores inside the mouth.
Recurrent infections (fever blisters and cold sores) - None.

School: None.

TREATMENT A topical medication may be prescribed.

PREVENTION/CONTROL

- Encourage children not to touch the sores.
- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after having contact with the sores or saliva.
- Wear disposable medical gloves when touching the sores is necessary (e.g., when applying medication).
- DO NOT kiss an infected person on or near the mouth when sores are present.
- Clean and sanitize mouthed objects, and surfaces at least daily and when soiled. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Herpes (Cold Sores)

Herpes simplex is a viral infection that may cause sores in the mouth or on the lips and face. The sores are commonly called cold sores.

If you think your child has Cold Sores:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  <u>Childcare</u>:

  First infection: Yes, as long as young children that drool have active sores. They can return when the sores in the mouth have healed.

  Recurring infections: No.

  <u>School</u>:

  No.

Symptoms

The first time a child is infected, there may be blister-like sores inside the mouth and on the gums. A child may have a fever and be fussy. The cold sores and fever blisters may occur many times in a person's life.

If your child is infected for the first time, it may take 2 to 14 days for symptoms to start.

Spread

- By having direct contact with saliva, commonly by kissing.
- By touching the fluid from the blisters or sores.

Contagious Period

First infection: up to 2 weeks, sometimes longer.
Recurring infection: usually 3 to 5 days.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms of oral herpes infection.

Prevention

- Remind children not to touch the sores.
- Wash hands after touching anything that could be contaminated with secretions from the mouth or the sores. Your child may need help with handwashing.
- Clean and disinfect objects that come in contact with the sores or secretions from the mouth. Use a product that kills viruses.
- DO NOT kiss a person with sores on or near the mouth.
- Use a cotton-tipped swab to apply medication.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

HUMAN IMMUNODEFICIENCY VIRUS (HIV) INFECTION/AIDS

Reportable to local or state health department

This fact sheet is for provider information only.
If you have questions, please call the health department.

The spread of HIV, the virus that causes Acquired Immunodeficiency Syndrome (AIDS), has not been documented in the childcare setting or schools. Since children infected with this virus may be in childcare or school, this information is provided to further reduce the extremely unlikely possibility of spread.

CAUSE Human immunodeficiency virus (HIV).

SYMPTOMS HIV commonly attacks the immune system, leaving people susceptible to a variety of infections. Symptoms will depend on the type of infection. Children may experience no symptoms, or they may have symptoms such as diarrhea, fever, weight loss, or failure to thrive.

SPREAD It may be possible, but unlikely, in the childcare or school setting, for spread to occur by getting blood from an infected person into open cuts, scrapes, or the mouth or eyes of another person. Most children who are infected get the virus from their infected mothers during pregnancy or at the time of birth. Some children have been infected through transfusions of blood products that contained HIV. In adults, the virus is most often spread through sexual contact or by sharing needles.

HIV has been found in blood, semen, vaginal fluids, saliva, urine, tears, breast milk, and other body fluids, but spread has **NOT** been shown to occur from contact with fluids other than blood, semen, vaginal fluids, and breast milk.

HIV is **NOT** spread by coughing, sneezing, hugging, mosquito bites, or contact with eating utensils, faucets, doorknobs, or toilet seats.

DIAGNOSIS Recommend parents/guardians call their healthcare provider. HIV infection is diagnosed by a blood test.

Most HIV tests are antibody tests that measure the antibodies the body makes against HIV. It can take some time for the immune system to produce enough antibodies for the antibody test to detect, and this time period can vary from person to person. Most people will develop detectable antibodies within 2 to 8 weeks (the average is 25 days). Ninety-seven percent of persons will develop antibodies in the first 3 months following the time of their infection. In very rare cases, it can take up to 6 months to develop antibodies to HIV.

CONTAGIOUS PERIOD Probably from the time of infection throughout the remainder of the person's life.

EXCLUSION Children with HIV infection should not be excluded from school, childcare, or other group care settings solely based on their HIV infection. Any child, regardless of known HIV status, who has a condition such as oozing sores that cannot be covered, bleeding problems, or unusually aggressive behavior (e.g., biting) that cannot be controlled may merit assessment by the child's health professional and the child care program director or school principal to see whether the child may attend while the condition is present.

EXCLUSION (CONTINUED)

- **Children who are infected with HIV** may have weakened immune systems. This would make them more likely to have serious problems from infections such as chickenpox, measles, CMV, or TB. Parents/guardians of infected children should call their healthcare provider if these illnesses occur in the childcare or school.

- **Adults infected** with HIV may work in the childcare setting if they do not have any medical conditions which would allow their body fluids to come into contact with others. HIV-infected childcare workers should call their healthcare provider if diseases like chickenpox, measles, CMV, or TB occur.

PREVENTION/CONTROL

- There is no indication for routine screening of children for HIV antibody status before they enter childcare. CDC recommends that everyone ages 13 thru 64 should be screened annually for HIV.

- Children and staff should not share toothbrushes or nail clippers.

- Clean and disinfect blood and body fluid spills: (See pg 37)

  - Clean all surfaces and objects contaminated with blood or body fluids with soap or a detergent and water, and then disinfect immediately with an effective disinfectant. HIV, as well as other infectious bacteria, may be found in blood and other body fluids of any person even when there are no symptoms to suggest infection is present.

  - Wear disposable medical gloves when handling blood (nosebleeds, cuts) or items, surfaces, or clothing contaminated with blood or bloody body fluids or when there are open sores, cuts, or abrasions on the hands.

  - **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands immediately after contact with any body fluids, even if gloves have been worn. Wash hands thoroughly with soap and warm running water.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 (8-5 Monday thru Friday), or call your local health department, or call MDHSS' Bureau of HIV, STD, and Hepatitis: Telephone: 573-751-6439 or Toll-free 866-628-9891.

IMPETIGO

Impetigo is a contagious skin infection often occurring on the nose, arms, or legs or around the mouth. This infection is common in young children.

CAUSE *Streptococcus* and/or *Staphylococcus* bacteria, including Methicillin-resistant *Staphylococcus aureus* (MRSA).

SYMPTOMS Typically begins at a break in the skin (e.g., insect bite, cut). Sores form on the skin and produce a thick golden-yellow discharge that dries, crusts, and sticks to the skin.

Rarely, problems such as kidney disease or cellulitis (skin infection) may develop if children do not receive proper treatment.

SPREAD From person-to-person through touching the fluid from the sores. Rarely, through touching contaminated objects.

INCUBATION It usually takes 1 to 10 days from the time a person is exposed until symptoms begin.

CONTAGIOUS PERIOD Until sores are healed or the person has been treated with antibiotics for 24 hours.

EXCLUSION Childcare and School: If impetigo is confirmed by a healthcare provider, until 24 hours after treatment has been initiated. Lesions on exposed skin should be covered with watertight dressing.

DIAGNOSIS Recommend parents/guardians call their healthcare provider if their child has impetigo.

TREATMENT Impetigo can be treated with topical antibiotics (applied directly to the skin) when only a few sores are present. Oral or injectable antibiotics may also be prescribed.

PREVENTION/CONTROL

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after contact with sores.
- Wear disposable medical gloves if applying ointment to sores or use cotton-tipped swabs.
- Cover sores whenever possible to prevent spread. Discourage children from scratching infected areas.
- DO NOT share towels, washcloths, or clothing.
- Clean and sanitize mouthed objects, and surfaces at least daily and when soiled. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Impetigo

Impetigo is a bacterial skin infection. It usually occurs on the nose, arms, or legs or around the mouth.

If you think your child has Impetigo:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  Yes, if impetigo is confirmed by your healthcare provider, until 24 hours of treatment has been completed. Lesions on exposed skin should be covered with watertight dressing. and sores are drying.

Symptoms

Your child may have sores on the skin. The sores can produce a thick golden-yellow discharge that dries, crusts, and sticks to the skin. It usually begins at a break in the skin. It could start near a cut or insect bite.

If your child is infected, it may take 1 to 10 days for symptoms to start.

Spread

- By touching the fluid from the sores.

Contagious Period

Until sores are healed or the person has been treated for at least 24 hours.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms of impetigo. Your doctor may prescribe a medication.

Prevention

- Wash hands after touching anything that could be contaminated with fluid from the sores. Your child may need help with handwashing.
- Clean and disinfect objects that come in contact with fluid from the sores. Use a product that kills bacteria.
- DO NOT share towels, washcloths, or clothing.
- Keep sores covered with a bandage. Remind children not to scratch the sores.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

INFLUENZA

Reportable to local or state health department

Influenza (also known as flu) is a very common respiratory disease. Influenza is not what is commonly referred to as "the stomach flu," which is a term used by some to describe illnesses causing vomiting or diarrhea. Every year, millions of people in the United States get influenza. Influenza often results in more severe illness than other respiratory viruses.

CAUSE Influenza virus. The two main types of influenza viruses are type A and type B. Within each type there are many related strains or subtypes, which can change every year. This is the reason a person can get influenza more than once and why a person should get vaccinated every year. Influenza usually occurs in the United States between October and May.

SYMPTOMS Influenza starts quickly with fever, chills, body aches, headache, cough, runny or stuffy nose, and sore throat. Illness usually lasts 3 to 7 days. Children may develop ear infections, pneumonia, or croup as a result of influenza infection.

Serious complications of influenza occur most often in the elderly, young infants, or people with chronic health problems or weakened immune systems.

SPREAD Influenza is spread mainly person to person through droplets created with coughing and sneezing by persons infected with the virus. Infection occurs when a person has contact with droplets in the air or touches contaminated surfaces then touches their mouth or nose.

INCUBATION It takes from 1 to 4 days, usually 2 days, from the time of infection until symptoms begin.

CONTAGIOUS PERIOD One day before symptoms and 5 to 7 days after symptoms begin. Children may be contagious for a longer period.

EXCLUSION Childcare and School: Those with flu-like illness should stay home for at least 24 hours after they no longer have a fever, or signs of a fever, without the use of fever-reducing medicines. They should stay home even if they are using antiviral drugs.

Decisions about extending the exclusion period could be made at the community level, in conjunction with local and state health officials. More stringent guidelines and longer periods of exclusion – for example, until complete resolution of all symptoms – may be considered for people returning to a setting where high numbers of high-risk people may be exposed, such as a camp for children with asthma or a child care facility for children younger than 5 years old.

DIAGNOSIS Recommend parents/guardians call their healthcare provider if their child has a high fever and/or persistent cough. Viral cultures may be taken.

TREATMENT Antiviral medications (antivirals) can shorten the course of illness if given within 36 to 48 hours after the symptoms begin. Influenza is a viral illness; therefore, antibiotics will not be effective.

DO NOT GIVE ASPIRIN or SALICYLATE-CONTAINING MEDICATIONS TO ANY CHILD OR ADOLESCENT UNDER 18 YEARS OF AGE.
Acetaminophen (Tylenol) may be used to reduce fever and body aches.

PREVENTION/CONTROL

Annual influenza vaccinations are recommended for:

- All children 6 months to 18 years of age.
- All adults 50 years and older.
- Anyone 6 months of age and older with chronic health conditions. People who care for children less than 5 years of age (especially for children under 6 months of age).

In addition, flu vaccine can be given to anyone else who wishes to reduce the likelihood of becoming ill with influenza. The vaccine is usually given in the late fall. People who were not vaccinated in the fall may be vaccinated any time during the influenza season. For current recommendations check the MDHSS website at: http://health.mo.gov/living/healthcondiseases/communicable/influenza/

- Cover nose and mouth with a tissue when coughing or sneezing, or cough/sneeze into your sleeve. Dispose of used tissues.

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after contact with secretions from the nose or mouth or handling used tissues.

- Try to avoid close contact with sick people.

- While sick, limit contact with others as much as possible to keep from infecting them.

- Take flu antiviral drugs if your doctor recommends them.

- Clean and disinfect commonly touched surfaces (door knobs, refrigerator handle, water faucets, cupboard handles, and computer keyboards) at least daily. (See pgs 35-41)

- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. (See pgs 35-41)

- DO NOT allow sharing of anything that goes into the mouth such as drinking cups, straws, water bottles, and eating utensils.

- Stay home if you are ill. Encourage parents/guardians to keep ill children at home.

During pandemic influenza additional recommendations

- A flu (influenza) pandemic is an outbreak caused by a new human flu virus that spreads around the world. Because the pandemic flu virus will be new to people, many people could get very sick or could die. Seasonal flu shots do not protect people from pandemic flu.

- Antiviral medication may be used for the prevention or treatment of influenza. During a pandemic the Department of Health and Senior Services has a limited supply of medication that will be used according to Missouri's Influenza Plan.

- Childcare programs should work closely and directly with their local and state public health officials to make appropriate decisions and implement strategies in a coordinated manner.

- Childcare providers should conduct daily health checks on all children. Although daily health checks have been recommended for childcare programs before the current H1N1 flu situation, programs that do not conduct routine daily health checks should institute this practice. (See Caring for Our Children Standards 3.001 and 3.002 for information on how to do this **http://nrckids.org/**.)

- Ill children should stay home and not be taken out of one childcare program and put into another childcare program even temporarily.

- Childcare programs can help serve as a focus for educational activities aimed at promoting ways to reduce the spread of influenza, including hand hygiene and cough etiquette**. See http://health.mo.gov/living/healthcondiseases/communicable/influenza/whack/index.php**

- The Missouri State Public Health Laboratory performs testing for public health surveillance and for epidemiological purposes. For questions related to testing of clinical specimens or other questions related to pandemic influenza, contact the Department of Health and Senior Services at (800) 392-0272.

For general information on pandemic flu planning see the following:

http://pandemicflu.gov/professional/index.html

http://www.pandemicflu.gov/

Order materials from the following:

http://health.mo.gov/emergencies/readyin3/mainreadyform.php
http://www.cdc.gov/h1n1flu/childcare/toolkit/

Health message card:

http://www2a.cdc.gov/eCards/message/message.asp?cardid=309

Your child may have been exposed to:

Influenza (Flu)

Influenza (also known as flu) is a common viral respiratory infection.

Influenza is not "stomach flu", a term used by some to describe illnesses causing vomiting or diarrhea.

If you think your child has the Flu:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  <u>Childcare and School</u>:

  Yes, until the fever is gone for at least 24 hours and the child is healthy enough for routine activities.

DO NOT give aspirin or salicylate-containing medicines to anyone under 18 years of age.

Symptoms

Your child may have chills, body aches, fever, and headache. Your child may also have a cough, runny or stuffy nose, and sore throat.

Illness may last up to 7 days.

If your child has been infected, it may take 1 to 4 days (usually 2 days) for symptoms to start.

Spread

- By coughing and sneezing.
- By touching contaminated hands, objects or surfaces.

Contagious Period

During the 24 hours before and up to 7 days after the illness begins.

Call your Healthcare Provider

♦ If anyone in your home has a high fever and/or coughs a lot. Your doctor may give medications.

Antibiotics do not work for illnesses caused by a virus, including influenza.

Prevention

- Cover nose and mouth when sneezing or coughing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with secretions from the nose or mouth. Your child may need help with handwashing.
- DO NOT share anything that goes into the mouth, such as drinking cups, straws, and water bottles.
- Clean and disinfect anything that comes in contact with secretions from the nose or mouth. This includes door knobs, refrigerator handle, water faucets, and cupboard handles. Use a product that kills viruses.
- Annual influenza vaccination is recommended for children 6 months to 18 years of age. Ask your healthcare provider about vaccine.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

MEASLES

Reportable to local or state health department

Consult the health department before posting/distributing Parent/Guardian fact sheet.

Measles (also called rubeola, red measles, or hard measles) is a highly contagious virus and is a serious illness that may be prevented by vaccination. Currently, measles most often occurs in susceptible persons (those who have never had measles or measles vaccine) who are traveling into and out of the United States.

CAUSE Measles virus.

SYMPTOMS The first symptoms seem like the beginning of a cold with a high fever, watery eyes, runny nose, and cough. A red blotchy rash appears 3 to 5 days after the start of symptoms, usually beginning on the face (hairline), spreading down the trunk and down the arms and legs. The fever may still be present after the rash starts. The rash usually lasts 4 to 7 days. Measles is sometimes complicated by diarrhea, ear infection, or pneumonia. About one child in every 1000 who gets measles will develop encephalitis (inflammation of the brain). Encephalitis can lead to seizures, deafness, or mental retardation.

SPREAD When a person with measles coughs, sneezes, or breathes out tiny droplets with measles virus into the air and another person breathes them in. The virus can sometimes float in the air and infect others for approximately two hours after a person with measles leaves a room. Also by handling or touching contaminated objects and then touching your eyes, nose, and/or mouth.

INCUBATION It generally takes from 7 to 14 days from the time a person is exposed until cold-like symptoms begin. The time from exposure to when the rash starts is usually 14 days, or 3 to 5 days after the start of symptoms.

CONTAGIOUS PERIOD From 4 days before the rash becomes visible to 4 days after the rash appears.

EXCLUSION Childcare and School: Until 4 days after the rash appears. A child with measles should not attend any activities during this time period.

Exclude unvaccinated children and staff, who are not vaccinated within 72 hours of exposure, for at least 2 weeks after the onset of rash in the last person who developed measles.

DIAGNOSIS A rash may occur with many viral illnesses. If measles is suspected, a blood test for measles antibody should be done 3 to 5 days after rash begins.

Persons who have been exposed to measles should contact their healthcare provider if they develop cold-like symptoms with a fever and/or rash. They should **NOT go to any healthcare facility without calling first. The child will be kept separate from others to prevent further spread.**

TREATMENT Recommend parents/guardians call their healthcare provider.

PREVENTION/CONTROL

- Measles vaccine is usually combined with mumps and rubella vaccine (MMR) and given at 12 to 15 months of age.

- Unvaccinated people who have been exposed to measles should call their healthcare provider or local public health clinic as soon as possible to be vaccinated. Vaccination is contraindicated during pregnancy.

  - If measles vaccine is given within 72 hours of exposure, it may provide some protection. Encourage parents/guardians to notify the childcare provider or school when their child is vaccinated so their records can be updated.

  - Immune globulin (IG) if given within 6 days of exposure can prevent or make the symptoms of measles milder. This should be strongly considered for contacts younger than one year of age, pregnant women who have never had measles or measles vaccine, or persons with a weakened immune system.

- Recommend staff stay home if they develop symptoms of measles. Encourage parents/guardians keep their child home if they develop symptoms of measles.

- Teach children and staff not to touch their eyes, nose, or mouth.

- Cover your nose and mouth with a tissue when coughing or sneezing, or cough/sneeze into your sleeve. Dispose of used tissues.

- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. (See pgs 35-41)

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after touching secretions from the nose or mouth.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Measles

Measles is a serious viral illness that may be prevented by vaccination.

If you think your child has Measles:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  Yes, until 4 days after the rash begins.

  A child with measles should not attend any activities during this time period.

If a case of measles occurs in your childcare or school, public health will inform unvaccinated children and staff how long they will need to stay home.

Symptoms

Your child may have a high fever, watery eyes, a runny nose, and a cough.

The rash typically appears 5 days after the start of symptoms. This rash will appear red and blotchy and last up to 7 days. It usually begins on the face (in the hairline) and then spreads down so it may eventually cover the entire body.

If your child has been infected, it may take 7 to 18 days for symptoms to start, generally 8 to 12 days.

Spread

- By coughing and sneezing.
- By touching contaminated objects or surfaces.

Contagious Period

From 4 days before to 4 days after the rash starts.

Call your Healthcare Provider

If anyone in your home:

- was exposed to measles and has not had measles or measles vaccine in the past.
- develops cold-like symptoms with a fever and/or a rash. Keep them at home. **DO NOT go to a healthcare facility without calling first.** Your child will be kept separate from others to prevent further spread. A blood test may be done.

Prevention

- All children by the age of 15 months must be vaccinated against measles or have an exemption for childcare enrollment. An additional dose or an exemption is required for kindergarten or two doses by eighth grade enrollment. When a single case of measles is identified, exemptions in childcare centers or schools will not be allowed.
- People receiving their second dose, as well as unimmunized people receiving their first dose before or within 72 hours of exposure, may be readmitted immediately to the school or childcare facility.
- Parents should keep infants away from individuals with a cough illness.
- People who have close contact with infants should be up-to-date on their immunizations.
- Cover nose and mouth when coughing and sneezing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with secretions from the nose or mouth. Your child may need help with handwashing.
- Clean and disinfect anything that comes in contact with secretions from the nose or mouth. Use a product that kills viruses.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

MENINGOCOCCAL DISEASE

Reportable to local or state health department

Consult the health department before posting/distributing Parent/Guardian fact sheet.

This disease most often affects children and young adults. Meningococcal disease is a medical emergency that requires prompt treatment. Vaccination may help prevent some cases of this illness.

CAUSE *Neisseria meningitidis* bacteria.

SYMPTOMS **Bacteremia -** sudden onset of fever, chills, and tiredness; sometimes a rash.
Meningitis - fever, vomiting, headache, stiff neck, extreme sleepiness, confusion, irritability, and lack of appetite; sometimes a rash.

SPREAD Through direct contact with secretions of the nose and throat of an infected person; more common among people with close personal contact or in households, childcare settings, or schools where there is close prolonged physical contact (e.g., through kissing, sharing food, beverages, toothbrushes, or cigarettes).

INCUBATION It takes 1 to 10 days, but usually 3 to 4 days, from the time a person is exposed to the bacteria until symptoms begin.

CONTAGIOUS PERIOD Until 24 hours after antibiotic treatment begins.

EXCLUSION Childcare and School: Consult with your local or state health department. Each situation must be looked at individually to determine appropriate control measures to implement. Most children may return after the child has been on appropriate antibiotics for at least 24 hours and is well enough to participate in routine activities.

The childcare provider or school may choose to exclude exposed staff and attendees until preventive treatment has been started, if there is concern that they will not follow through with recommended preventive treatment otherwise.

DIAGNOSIS Laboratory tests can be done to detect *N. meningitides* when disease is suspected.

TREATMENT Meningococcal disease is caused by bacteria and can be treated with antibiotics. Exposed persons should contact a healthcare provider at the first signs of meningococcal disease.

PREVENTION/CONTROL

- Public health will make recommendations to the childcare, school, and other contacts. Antibiotics and/or vaccine may be recommended.

- Antibiotics to prevent meningitis are recommended for:
  - Household contacts.
  - Overnight visitors to the household.

PREVENTION/CONTROL (CONTINUED)

- Persons who had contact with the secretions from the mouth or throat through:
  - ♦ kissing.
  - ♦ sharing food (eating from the same utensils, plate, etc.).
  - ♦ sharing beverages (drinking from the same cup, can, glass, or straw).
  - ♦ sharing cigarettes, cigars, snuff, pipes, etc.
  - ♦ sharing lip balm, lipstick, lip gloss, etc.
  - ♦ sharing a toothbrush.

- The following activities **ARE NOT** considered direct contact with the person with meningitis: sharing a book or pencil, walking down the hall, riding the bus, or sitting or standing next to them.

- Persons who have been exposed should remain under medical observation because preventive antibiotics are not always completely effective. If an exposed person develops a fever, call a healthcare provider right away.

- DO NOT share drink containers and cups or silverware. Wash and sanitize all dishes and silverware after each use. (See pgs 35-41)

- Clean and sanitize mouthed objects and surfaces. Clean and disinfect other items or surfaces that come in contact with secretions from the nose or mouth. (See pgs 35-41)

- There are two vaccines to prevent *Neisseria meningitidis*: Meningococcal polysaccharide vaccine (MPSV4) and meningococcal conjugate vaccine (MCV4). The vaccines are highly effective at preventing four of the strains of bacteria that cause meningococcal meningitis. However, the vaccine takes some time to take effect and is not considered a substitute for antibiotics following a high risk exposure.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Meningococcal Disease

Meningococcal disease is a bacterial infection of the covering of the brain or spinal cord (meningitis) or of the blood (bacteremia) that requires prompt treatment.

If you think your child has Meningococcal Disease:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  Yes, until the child has been on antibiotics at least 24 hours. The child should also be healthy enough for routine activities.

Symptoms

Your child may have chills, a headache, fever, and stiff neck. The child may vomit, be extremely sleepy, and be confused and fussy. The child may not be hungry. Sometimes symptoms include a rash or seizures.

If your child is infected, it may take 1 to 10 days for symptoms to start. It usually takes 3 or 4 days.

Spread

- By direct contact with secretions of the nose and throat. This may happen by kissing, sharing food, beverages, toothbrushes, or silverware.

Contagious Period

Until 24 hours after starting antibiotic treatment.

Call your Healthcare Provider

If anyone in your home:

- ♦ has symptoms of the illness. Your doctor will decide if a test or treatment is needed.
- ♦ has been exposed (by direct contact with saliva or is a household contact) to someone with meningococcal disease.

Prevention

- The local or state health department will help to determine who has been exposed and will need to take preventive antibiotics.
- DO NOT share drink containers, water bottles, straws, silverware, cigarettes, lip balm, toothbrushes, or other things that come in contact with the mouth. Wash all dishes with hot soapy water between uses.
- Clean and disinfect objects that come in contact with secretions from the nose or mouth. Use a product that kills bacteria.
- Check with your healthcare provider about vaccinations that can protect against some strains of meningococcal disease.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

METHICILLIN-RESISTANT *STAPHYLOCOCCUS AUREUS* (MRSA)

Staphylococcus aureus (staph) bacteria are commonly found in the nose and on the skin of healthy people. When staph is present on or in the body without causing illness, this is called colonization. Staph with resistance to some antibiotics (e.g., methicillin) is known as methicillin-resistant *Staphylococcus aureus* (MRSA). When bacteria are resistant to an antibiotic it means that particular antibiotic will not kill the bacteria. MRSA was first identified in healthcare facilities. MRSA is now being seen among young healthy people in the community; this is referred to as community-acquired MRSA.

CAUSE *Staphylococcus aureus* bacteria resistant to some antibiotics.

SYMPTOMS Most MRSA infections are skin infections that typically cause local redness and warmth of the infected area with or without pus/drainage. These infections commonly occur at sites of visible skin trauma, such as cuts and abrasions, and areas of the body covered by hair (e.g., back of neck, groin, buttock, and armpit). Localized infections include boils, impetigo, cellulitis, and wound infections. More serious infections, such as pneumonia, bloodstream infections, or bone infections, are very rare in healthy people who get MRSA skin infections.

SPREAD By contact with hands, skin drainage, pus, or secretions from the nose of a person who is infected or colonized with MRSA.

INCUBATION Variable. A long delay may occur between colonization with staph and the onset of infection.

CONTAGIOUS PERIOD As long as infection or colonization lasts. Persons who have draining infections are shedding more bacteria and are more infectious than persons who are colonized only.

EXCLUSION Childcare and School: If draining sores are present which cannot be completely covered and contained with a clean, dry bandage or if the person cannot maintain good personal hygiene.

Children who are only colonized do not need to be excluded.

Activities: Children with draining sores should not participate in any activities where skin-to-skin contact is likely to occur until their sores are healed. This means no contact sports.

TREATMENT Children with skin infections need to be referred to a licensed health care provider for diagnosis and treatment. Childcare/school personnel should notify parents/guardians when possible skin infections are detected.

PREVENTION/CONTROL

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after touching secretions from the nose, tracheostomies, gastrostomies, or skin drainage of an infected or colonized person.

- Wear disposable medical gloves when touching any draining sores or changing bandages.

PREVENTION/CONTROL (CONTINUED)

- Dispose of bandages in a plastic bag immediately to prevent contamination of surfaces. Close the plastic bag and dispose in the trash.
- Keep wounds clean and dry and covered with a bandage.
- DO NOT share personal items such as towels, washcloths, bar soap, combs, razors, or clothing.
- Wash bedding separately from other laundry in hot water with detergent. Dry in a hot dryer.
- Clean and disinfect contaminated surfaces or objects daily or when soiled. (See pgs 35-41)
- Food handlers with open sores should wear waterproof disposable gloves.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

More information about MRSA can be found at: **http://health.mo.gov/data/mrsavre/index.php.**

Your child may have been exposed to:

MRSA

Methicillin-resistant *Staphylococcus aureus* (MRSA) are *Staphylococcus aureus* (staph) bacteria with resistance to some antibiotics. When bacteria are antibiotic resistant it means that an antibiotic will not kill the bacteria.

If you think your child has MRSA:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  Yes, if draining sores are present and cannot be completely covered and contained with a clean, dry bandage.

  No, if child is only colonized.

  Activities:
  Avoid participating in activities where skin-to-skin contact is likely to occur until sores are healed. This means no contact sports.

Symptoms

An area of skin infection that may be red and warm. There may be pus or drainage. These infections commonly occur where children have cuts and scrapes. Examples include boils, impetigo, cellulitis, and wound infections.

People may be "colonized" with staph bacteria in their nose or on their skin. This means that the bacteria are there without causing any infection or any harm.

If your child is infected, the time it will take for symptoms to start will vary by type of infection.

Spread

- By contact with hands, skin drainage, pus, or secretions from the nose.

Contagious Period

As long as the bacteria are present. A child who has draining infections has more bacteria and is more contagious than a child who is only colonized.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms. Your doctor will decide what treatment is needed.

Prevention

- Wear disposable gloves when changing bandages. Wash hands after touching any draining sores or changing bandages. Your child may need help with handwashing.
- Keep wounds clean, dry, and covered with a bandage. Put used bandages in a plastic bag right away. Close the plastic bag and put it in the trash.
- If possible, people with staph infections should do their own first aid on cuts/scrapes.
- Never share personal items such as washcloths, bar soap, combs, razors, or clothing.
- Keep contaminated laundry separate from other laundry. Wash clothes, bed sheets, and blankets in hot water with detergent and dry in a hot dryer.
- Clean and disinfect contaminated surfaces and objects with a disinfectant that kills *Staphylococcus aureus* bacteria.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

MOLLUSCUM CONTAGIOSUM

Molluscum contagiosum is a common skin infection that is caused by a virus. Most commonly, it affects children 1 to 10 years and young adults.

CAUSE A Poxvirus.

SYMPTOMS Small, pale, shiny, domed-shaped bumps on the skin, often with a characteristic dimple on the top. The bumps may be flesh-colored, white, translucent, or pink. The bumps are usually painless, but, on rare occasions, can be itchy, red, swollen, and/or sore. In children, the bumps occur on the face, body, arms, or legs. It may last longer and cover more of the body in people with eczema (skin disease) or those who have a weakened immune system.

SPREAD From direct skin-to-skin contact with an infected person. It can also be spread by contact with contaminated objects such as shared clothes, towels, washcloths, gym or pool equipment, and wrestling mats.

Persons with this skin disease can accidentally spread the virus to other parts of their body. Spread can occur by touching or scratching the bumps and then touching another part of the body (autoinoculation).

Although the virus might be spread by sharing swimming pools, baths, saunas, etc., this has not been proven. Researchers who have investigated this idea think it is more likely that the virus is spread by sharing towels and other items around a pool or sauna than through water.

INCUBATION Typically, it takes 2 to 7 weeks from when a person is exposed until symptoms develop. However, it could be up to 6 months.

CONTAGIOUS PERIOD People can spread the infection until the soft white core comes out of the center of their bump(s). After that, the bumps will begin to heal and the risk of spreading the infections will be very low. In general, contagiousness is low. Reinfection is possible but not common.

EXCLUSION Childcare and School: None. Encourage parents/guardians to cover bumps with clothing when there is a possibility that others will come in contact with the skin. If not covered by clothing, cover with a bandage.

Activities: Exclude any child with bumps that cannot be covered with a watertight bandage from participating in swimming or other contact sports.

DIAGNOSIS Recommend parents/guardians call their healthcare provider.

TREATMENT Treatment options should be discussed with a healthcare provider.

PREVENTION/CONTROL

- Discourage children from touching, picking, or scratching any skin with bumps or blisters.

PREVENTION/CONTROL (CONTINUED)

- Have parents/guardians change bandage daily or when obviously soiled.
- Use disposable medical gloves if bandage is changed at the childcare or school.
- Discard used bandages and gloves in the trash.
- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after touching the bumps or discarding bandages.
- School sports with body contact or shared equipment:
  - **Require bumps be covered with clothing or a watertight bandage.**
  - DO NOT allow children to share towels, washcloths, uniforms, clothing, or other personal items.
  - DO NOT allow sharing of sports equipment or pool equipment.
- Provide individual kick boards and other pool equipment.
- Clean and disinfect any surfaces and equipment thoroughly that may have been contaminated. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Information was taken from the CDC information sheet on Molluscum contagiousum.

Your child may have been exposed to:

Molluscum Contagiosum

Molluscum contagiosum is a common viral skin infection.

If you think your child has Molluscum Contagiosum:

- Tell your childcare provider or call the school.

- **Need to stay home?**

  Childcare and School:

  No. Cover bumps with clothing if skin-to-skin contact will occur.

  Activities:
  Avoid participating in swimming or contact sports if the bumps cannot be covered with clothing or a watertight bandage.

Symptoms

Your child may have bumps on the face, body, arms, or legs. The bumps are small, pale, shiny, and dome-shaped. The bump color may be flesh, white or pink. There may be a dimple on the top. The bumps are usually painless. Rarely, the bumps are itchy, red, swollen, and/or sore.

If your child is infected, it may take 2 to 7 weeks for symptoms to develop. However, it could be up to 6 months.

Spread

- By skin-to-skin contact with an infected person.
- By using contaminated towels, washcloths, or equipment.
- By touching or scratching your bumps and then touching another part of your body.

Contagious Period

Until the soft, white core comes out of the center of the bumps. After the bumps begin to heal, the risk of spreading the infection will be very low.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms. Your doctor will decide if treatment is needed.

Prevention

- Avoid touching, picking, or scratching skin with bumps or blisters.
- Cover bumps with clothing or a bandage when others will come in contact with the skin. This will help prevent touching or scratching the bumps and help prevent spread.
- Change bandages daily or when soiled. Discard used bandages in trash.
- Wash hands after touching the bumps or handling bandages.

Contact sports or using shared equipment:

- Avoid sharing towels, wash cloths, uniforms, clothing, or other personal items.
- Avoid using sports or pool equipment that has not been disinfected.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

MONONUCLEOSIS

Mononucleosis (mono) is often seen in high school and college students. About 50% of those infected will develop symptoms of infectious mononucleosis.

CAUSE Most of the cases are caused by Epstein-Barr virus (EBV). However, about 5% to 7% of cases are caused by cytomegalovirus (CMV).

SYMPTOMS Fever, sore throat, swollen glands (especially behind the neck), headache, tiredness, and sometimes a rash. Mono can last up to several weeks. It may take weeks to months to regain energy; however, this will vary from person to person.

Less common problems include jaundice (yellowing of the skin or eyes) and/or enlarged spleen or liver. Although rare, the spleen may rupture in extreme cases.

SPREAD From person-to-person through saliva. Spread can occur by kissing or sharing items contaminated with saliva (e.g., drinking cups, straws, bottles, mouthed pens and pencils, lip balm, or toothbrushes). Since this virus does not live long on surfaces and objects, you need to be exposed to fresh saliva to become infected.

INCUBATION It takes about 4 to 6 weeks from the time a person is exposed until symptoms begin.

CONTAGIOUS PERIOD From many weeks to a year or more. Some adults are carriers of the virus.

EXCLUSION Childcare and School: None, as long as the child is able to participate in routine activities. Because students/adults can have the virus without any symptoms and can be contagious for such a long time, exclusion will not prevent spread.

Sports: Contact sports should be avoided until the student is recovered fully and the spleen is no longer palpable.

DIAGNOSIS A healthcare provider may do blood tests.

TREATMENT May include bed rest, drinking plenty of water, restriction on lifting heavy objects or vigorous exercise, including contact sports.

PREVENTION/CONTROL

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after any contact with saliva or items contaminated with saliva.
- DO NOT allow sharing of drinking cups, bottles, straws, cigarettes, mouthed pens and pencils, toothbrushes, or lip balm. DO NOT allow sharing of water bottles during sports events.
- Avoid kissing an infected child on the lips or having contact with their saliva.
- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Mononucleosis

Mononucleosis (mono) is a viral illness.

If you think your child has Mono:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  No, as long as the child is healthy enough for routine activities.

  Sports:
  Children with an enlarged spleen should avoid contact sports until cleared by their healthcare provider.

Symptoms

Your child may have a sore throat, swollen glands, headache, fever, and sometimes a rash. Your child may be very tired.

Mono usually lasts from one week to several weeks. The time it takes to recover and regain energy varies from person to person.

Less common problems include jaundice (yellowing of the skin or eyes) and/or enlarged spleen or liver.

If your child is infected, it may take about 4 to 6 weeks for symptoms to start.

Spread

- By kissing or sharing items contaminated with saliva.

Contagious Period

For several weeks or longer.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms of mononucleosis. Your child may need bed rest, to drink plenty of water, and to avoid some physical activities.

Prevention

- Wash hands after touching anything that could be contaminated with secretions from the nose or mouth. Your child may need help with handwashing.
- Avoid sharing drink containers and cups or silverware. Wash all dishes with hot soapy water between uses.
- Clean and disinfect any objects that come in contact with the nose or mouth (for example, mouthed toys). Use a product that kills viruses.
- Avoid kissing or having contact with the saliva of an infected child.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

MOSQUITO-BORNE DISEASE (VIRAL)

Reportable to local or state health departments

This fact sheet is for provider information only.
If you have questions, please call the health department.

Mosquito-borne diseases are viral diseases that are spread by infected mosquitoes. Each disease is caused by a different virus. The many viruses have the potential of causing serious disease affecting the brain and central nervous system. Removal of potential breeding sites is important in preventing the spread of mosquitoes.

CAUSE

West Nile virus (WNV)	flavivirus
Eastern Equine encephalitis (EEE)	alphavirus
Western Equine encephalitis (WEE)	alphavirus
Saint Louis encephalitis (SLE)	flavivirus
California Group (i.e. La Crosse)	bunyavirus

SYMPTOMS May not be apparent or may range from mild headaches and influenza-like symptoms (such as fever, malaise, tiredness, headache, stiff neck, nausea, vomiting, rash, or muscle aches) to mental confusion and convulsions. Severe cases may develop inflammation of the brain (encephalitis). Most infections do not progress to encephalitis.

SPREAD Each virus is spread through the bite of a specific species of mosquito. West Nile disease may be spread by blood transfusion and transplanted organs. Some mosquitoes are weak flyers and tend to live close to their hatching sites. Birdbaths, wading pools, dog bowls, and other artificial containers of water should be emptied weekly to eliminate mosquito-breeding areas. Road ditches should be properly graded to allow water to drain. Rain gutters should be cleaned annually (every spring). Tires are notorious breeding places for mosquitoes.

INCUBATION The incubation period is usually 2 to 6 days, but ranges from 2 to 14 days, and may be up to 21 days in immunocompromised people.

CONTAGIOUS PERIOD None. It is not spread person-to-person.

EXCLUSION Childcare and School: None.

DIAGNOSIS Recommend parents/guardians call their healthcare provider if symptoms of arboviral disease are present. A healthcare provider must make the diagnosis.

TREATMENT Recommend parents/guardians call their healthcare provider.

PREVENTION/CONTROL

- Eliminate potential breeding sites. Mosquitoes breed in water and artificial containers, especially flower pots, birdbaths, cans, children's toys, wading pools, tire swings, old tires, or anything that will hold a small pool of water should be emptied or discarded. Old tires should be sent to a recycling center for proper disposal. Gas stations or tire stores may be a potential drop-off site.

PREVENTION/CONTROL (CONTINUED)

- Wear protective clothing, such as long-sleeved shirts and pants, when outdoors.
- Use an insect repellent with DEET (the active ingredient in most insect repellents) before going outside. Repellents containing DEET (up to 30% concentration for both adults and children; do not use DEET on infants younger than 2 months of age) may be used on clothing or skin. **ALWAYS FOLLOW THE LABEL DIRECTIONS.** If used properly, most repellents are very safe.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

MUMPS

Reportable to local or state health department

Consult the health department before posting/distributing Parent/Guardian fact sheet.

CAUSE Mumps virus.

SYMPTOMS Most commonly, swollen glands in front of and below the ear, headache, low-grade fever, and earache. Up to 30% of all people infected with the mumps virus have no symptoms. Orchitis (swelling of the testicles) is a common symptom in males after puberty. Rarely, swelling of the spinal cord and brain (encephalitis), inflammation of the ovaries (oophoritis) or breasts (mastitis), and deafness may occur. Serious problems from mumps are more common among adults than among children.

SPREAD When a person with mumps sneezes or coughs tiny droplets with mumps virus into the air and another person breathes them in or by touching secretions from the nose and throat of an infected person and then touching your eyes, nose, or mouth. Other examples of how the virus can be spread is through sharing toys, beverage containers, eating utensils, and smoking materials (cigarettes), and kissing.

INCUBATION It takes 12 to 25 days, usually about 16 to 18 days, from the time a person is exposed until symptoms begin.

CONTAGIOUS PERIOD From 2 days before until 5 days after swelling begins.

EXCLUSION Childcare and School: Until 5 days after swelling begins.

Exclude unvaccinated children and staff if two or more cases of mumps occur. Exclusion will last through at least 26 days after the onset of parotid gland swelling in the last person who developed mumps. Once vaccinated, students and staff can be readmitted.

DIAGNOSIS Swollen glands can be found with other illnesses. A blood test specific for mumps antibody should be done as soon as possible after symptoms begin. Sometimes, healthcare providers will obtain a second blood test 2 to 3 weeks later.

TREATMENT None.

PREVENTION/CONTROL

- Unvaccinated people who have been exposed to mumps should call their healthcare provider or local public health clinic as soon as possible to be vaccinated.
- Encourage parents/guardians to notify their childcare provider or school when their child is vaccinated so their records can be updated.

PREVENTION/CONTROL (CONTINUED)

- Recommend staff stay home if they develop symptoms of mumps. Encourage parents/guardians to keep their child home if they develop symptoms of mumps.

- Cover your nose and mouth with a tissue when coughing or sneezing, or cough/sneeze into your sleeve. Dispose of used tissues.

- DO NOT allow sharing of beverage containers, eating utensils, smoking materials (cigarettes, cigars, snuff, pipes, etc.), toothbrushes, lip gloss, lip balm, and lipstick.

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after contact with secretions from the nose or mouth.

- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Mumps

Mumps is a viral illness that can be prevented through vaccination.

If you think your child has Mumps:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  Yes, until 5 days after swelling begins.

If two or more cases of mumps occur in your childcare or school, public health will inform unvaccinated children and staff how long they will need to stay home.

Symptoms

Your child may have swollen glands in front of and below the ear. Your child may have a headache or a fever.

If your child is infected, it may take 12 to 25 days for symptoms to start.

Spread

- By coughing or sneezing.
- By touching contaminated hands, objects, or surfaces.

Contagious Period

For 2 days before until 5 days after swelling begins.

Call your Healthcare Provider

If anyone in your home:

- was exposed to mumps and has not had mumps or mumps vaccine in the past.
- develops symptoms of mumps. A blood test may be done.

Prevention

- All children by the age of 15 months must be vaccinated against mumps or have an exemption for childcare enrollment. An additional dose of mumps is highly recommended for kindergarten or two doses by eighth grade enrollment. When a mumps outbreak is identified, exemptions in childcare centers or schools will not be allowed.
- An unimmunized person can be readmitted immediately after immunization. Students who refuse immunization should be excluded until at least 26 days after the onset of parotitis in the last person with mumps in the affected school or childcare center.
- Parents should keep infants away from individuals suspected of having mumps.
- People who have close contact with infants should be up-to-date on their immunizations.
- Cover nose and mouth when coughing and sneezing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with secretions from the nose or mouth. Your child may need help with handwashing.
- Clean and disinfect anything that comes in contact with secretions from the nose or mouth. Use a product that kills viruses.
- DO NOT share anything that you put in your mouth, for example, beverage containers, eating utensils, cigarettes, toothbrushes, and lip balm.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

NOROVIRUS
(Norwalk-like Viruses)

Noroviruses cause gastroenteritis, an inflammation of the stomach and small and large intestines. Norovirus is often incorrectly called the "stomach flu", although it is not caused by the influenza virus.

CAUSE Norovirus (previously known as calicivirus, Norwalk virus, or Norwalk-like virus).

SYMPTOMS Watery diarrhea and vomiting. In addition, fever, headache, muscle aches, fatigue, and stomach cramps can occur. The illness can be mild to moderately severe with symptoms usually lasting 24 to 48 hours.

SPREAD The viruses leave the body through the feces of an infected person and enter another person when hands, food, or objects (such as toys) contaminated with feces are placed in the mouth. Spread can occur when people do not wash their hands after using the toilet or changing diapers. People can also get sick by eating food items contaminated during preparation or serving. Aerosolized spread from vomiting is possible. Person-to-person spread often occurs within families, schools, nursing homes, cruise ships, in childcare settings, and communities.

INCUBATION It takes 10 to 50 hours, usually from 24 to 48 hours, from the time a person is exposed until symptoms develop.

CONTAGIOUS PERIOD Individuals are most contagious while the symptoms are present; generally the first 72 hours after onset. Prolonged shedding can occur up to 3 weeks.

EXCLUSION Childcare and School: Until the child has been free of diarrhea and vomiting for at least 24 hours.

No one with vomiting and/or diarrhea should use pools, swimming beaches, recreational water parks, spas, or hot tubs for 2 weeks after diarrhea and/or vomiting symptoms have stopped.

Staff must avoid food preparation when diarrhea and vomiting are present and for at least 3 days after diarrhea and/or vomiting have stopped. Please call your local health department to see if these restrictions apply.

DIAGNOSIS Recommend parents/guardians call their healthcare provider if their child has symptoms to discuss whether laboratory tests need to be done to determine the cause.

TREATMENT Vomiting and diarrhea may lead to dehydration, which may be a medical emergency. Ask a healthcare provider how to prevent dehydration.

PREVENTION/CONTROL

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after using the toilet and changing diapers and before preparing or eating food. Staff should closely monitor or assist all children, as appropriate, with handwashing after children have used the bathroom or been diapered.

PREVENTION/CONTROL (CONTINUED)

- Restrict students from sharing any communal food items that are brought from home. In the classroom, children should not serve themselves food items that are not individually wrapped. The teacher should hand out these items after washing his/her hands. (This is not intended to discourage family-style serving in the absence of an outbreak.)

- Clean and disinfect diapering area and potty chairs after each use and bathroom toilets, sinks, and toys at least daily and when soiled. (See pgs 35-41)

- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Norovirus

Norovirus is a viral infection of the stomach and intestines.

If you think your child has Norovirus:

- Tell your childcare provider or call the school.
- **Need to stay Home?**

  Childcare and School:

  Yes, until the child has been free of diarrhea and vomiting for at least 24 hours.

In addition, anyone with vomiting and/or diarrhea should NOT use pools, swimming beaches, recreational water parks, spas, or hot tubs for at least 2 weeks after diarrhea and/or vomiting have stopped.

Symptoms

Your child may have watery diarrhea, vomiting, and fever. Other symptoms may include headache, stomach cramps, and tiredness. Illness usually lasts for 24 to 48 hours.

If your child is infected, it may take 1 to 2 days for symptoms to start.

Spread

- By eating or drinking contaminated food or beverages.
- By touching contaminated hands, surfaces, or objects.
- Also when someone vomits and bacteria get in the air.

Norovirus is easily spread in the household.

Contagious Period

The illness can spread as long as the virus is in the feces.

Call your Healthcare Provider

- ♦ No specific treatment is available.
- ♦ Ask how to prevent dehydration. Your child may become dehydrated due to vomiting or diarrhea.

Prevention

- Wash hands after using the toilet and changing diapers and before preparing food or eating. Your child may need help with handwashing.
- Clean and disinfect any objects that come in contact with feces. This includes toilets (potty chairs), sinks, toys, and diaper changing areas. Use a product that kills viruses.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

PARAPERTUSSIS

Parapertussis is similar to pertussis but tends to be a milder disease than pertussis.

CAUSE *Bordetella parapertussis* bacteria.

SYMPTOMS Parapertussis begins with a runny nose, sneezing, mild cough, and possibly a low-grade fever. The cough may occur in sudden, uncontrollable bursts, sometimes ending with high-pitched whooping sounds and/or vomiting.

SPREAD When a person with parapertussis coughs tiny droplets with parapertussis bacteria into the air and another person breathes them in.

INCUBATION It takes from 6 to 21 days, usually 7 to 10 days from the time a person is exposed until symptoms start.

CONTAGIOUS PERIOD Unknown, but probably most infectious at the time of early cold-like symptoms.

EXCLUSION Childcare and School: None, if the child is well enough to participate in routine activities.

DIAGNOSIS To confirm a diagnosis of parapertussis, laboratory tests are performed on material collected by placing a flexible swab through the nostril to the back of the nose and throat.

TREATMENT Persons with parapertussis can be treated with antibiotics, but antibiotics may do little to lessen the symptoms. Treatment is most effective if started soon after cough begins.

PREVENTION/CONTROL

- Cover your nose and mouth with a tissue when coughing or sneezing, or cough/sneeze into your sleeve. Dispose of used tissues.
- **Regular and thorough handwashing is the best way to prevent spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after contact with secretions from the nose or mouth.
- Preventive treatment is not generally recommended for contacts of people with parapertussis. Preventive treatment may be considered for close contacts who are at a higher risk for more severe disease, including infants and immuno-compromised persons. Vaccines for pertussis (DTaP and Tdap) are not effective against parapertussis.
- Clean and sanitize mouthed objects, and surfaces at least daily and when soiled. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Parapertussis

Parapertussis is a bacterial illness similar to pertussis (whooping cough) but it tends to be more mild.

If you think your child has Parapertussis:

- Tell your childcare provider or call the school.

- **Need to stay home?**

  Childcare and School:

  No, if the child is healthy enough for routine activities.

Symptoms

Your child may have a runny nose, sneezing, or mild coughing. Your child may cough in sudden, uncontrollable bursts. The cough may end with whooping sounds and/or vomiting.

If your child has been infected, it takes 6 to 21 days (usually 7 to 10 days) for symptoms to start.

Spread

By sneezing or coughing.

Contagious Period

Unknown, but likely to be most contagious at the time of early cold-like symptoms.

Call your Healthcare Provider

- ♦ If anyone in your home is coughing for more than 7 days. Your doctor may want to test for the bacteria. Antibiotics may be given.

Prevention

- Cover nose and mouth when coughing or sneezing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with secretions from the nose or mouth. Your child may need help with handwashing.
- Clean and disinfect anything that comes in contact with secretions from the nose or mouth. Use a product that kills bacteria.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

PERTUSSIS (WHOOPING COUGH)

Reportable to local or state health department

Consult the health department before posting/distributing Parent/Guardian fact sheet.

Pertussis (also known as whooping cough) can be a serious illness, especially in young, unvaccinated children. Adults and older children with pertussis may be the source of infection for infants and young children. This is a concern because in recent years, more adults, adolescents, and school-aged children have been contracting pertussis.

CAUSE *Bordetella pertussis* bacteria.

SYMPTOMS Pertussis begins with a runny nose, sneezing, mild cough, and possibly a low-grade fever. After a week or two, a persistent cough develops, which may occur in explosive bursts (paroxysmal coughing), sometimes ending in a high-pitched whoop and vomiting. A whoop may be absent in older children, adults, and infants younger than 6 months. Coughing attacks occur more frequently at night. The coughing attacks usually increase during the first two weeks of illness and then remain the same for two or three more weeks before gradually decreasing. Some people, particularly infants, may develop pneumonia and ear infections. Pertussis can occur in vaccinated children, but the illness is usually milder.

Older children and adults may have a less typical cough; however, it is usually persistent and may lead to vomiting or a whoop. Although the disease may be less severe in adults and older children, they can unknowingly infect infants and preschoolers who are at risk for serious illness.

SPREAD When a person with pertussis coughs or sneezes tiny droplets with pertussis bacteria into the air and another person breathes them in.

INCUBATION It takes 5 to 21 days, usually 7 to 10 days, from the time a person is exposed until symptoms start.

CONTAGIOUS PERIOD Begins at the time of early cold-like symptoms, before a persistent cough and explosive bursts of coughing start. Persons remain contagious until three weeks after explosive bursts of coughing begin. Those treated with antibiotics are contagious until 5 days of treatment are completed.

EXCLUSION Until 5 days after appropriate antibiotic treatment begins. During this time, the person with pertussis should NOT participate in any childcare, school, or community activities. If not treated with 5 days of antibiotics, exclusion should be for 21 days after cough onset.

If there is a high index of suspicion that the person has pertussis, exclude until the individual has been evaluated by a medical provider and deemed no longer infectious by the local health department, 5 days of antibiotics are completed or until the laboratory test comes back negative.

DIAGNOSIS To confirm a diagnosis of pertussis, laboratory tests are performed on material collected by placing a flexible swab through the nostril to the back of the nose and throat. Some lab tests (pertussis cultures) are less accurate after antibiotics are given or if significant time has passed since the onset of symptoms.

TREATMENT Antibiotics shorten the time a person with pertussis can give it to others, but may do little to lessen their symptoms. Treatment is most effective if started soon after cough begins. Antibiotics are usually not given to people who have had a cough for more than 21 days because they will no longer be helpful.

PREVENTION/CONTROL

- Studies have shown that protection from the pertussis vaccine (DTP/DTaP) decreases from 3 to 5 years after the last vaccination.

  Adolescents ages 11 through 18: Adolescents aged 11 or 12 should receive a single dose of tetanus, diphtheria, and pertussis (Tdap) in place of tetanus and diphtheria (Td). Adolescents aged 13 through 18 who have not received Tdap should receive a single dose of Tdap instead of Td for booster immunization

  Adults Ages 19 through 64: One dose of Tdap vaccine is recommended in place of the next booster of Td. Tdap is recommended for adults having close contact with infants less than 12 months of age, providing the interval of the most recent Td was two years or more.

- People who develop the symptoms of pertussis within 21 days of exposure should stay home and call their healthcare provider.

- Cover your nose and mouth with a tissue when coughing or sneezing, or cough/sneeze into your sleeve. Dispose of used tissues.

- **Regular and thorough handwashing is the best way to prevent spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after contact with secretions from the nose or mouth.

- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. (See pgs 35-41)

- People who are exposed to pertussis and who are not up to date on pertussis vaccinations should contact their healthcare provider or public health clinic to be vaccinated.

- Public health will determine if preventive antibiotics are needed if someone in your childcare or school develops pertussis.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Pertussis

Pertussis (whooping cough) can be a serious bacterial illness especially in young, unvaccinated children.

If you think your child has Pertussis:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  Yes, until 5 days after your child starts taking antibiotics.

If staff or children are not treated, they need to stay home until 21 days after cough starts.

Symptoms

Your child may first have a runny nose, sneezing, mild cough, and possibly fever.

After 1 or 2 weeks, your child may cough in explosive bursts. These coughing attacks can end in vomiting and/or in a high-pitched whoop. Coughing attacks occur most often at night. This may last up to three months.

If your child has been infected, it may take 5 to 21 days (usually 7 to 10 days) for symptoms to start.

Spread

- By coughing or sneezing.

Contagious Period

From the time of the first cold-like symptoms until 21 days after coughing begin. Antibiotics shorten the time a child with pertussis can give it to others.

Call your Healthcare Provider

If someone in your home has:

- had a cough 7 or more days. Laboratory tests may be done. Antibiotics will reduce the contagious period, but may do little to relieve your child's cough.
- been exposed to pertussis. Also, if public health has recommended that antibiotics are needed because of an exposure.

Prevention

- Cover nose and mouth when coughing and sneezing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with secretions from the nose or mouth. Your child may need help with handwashing.
- All children 2 months of age or older enrolled in childcare or school must be vaccinated against pertussis or have an exemption. Age appropriate pertussis vaccine should be administered in the absence of documented laboratory confirmed disease.
- **There is also a pertussis vaccine for adolescents and adults,** and is recommended for persons having close contact with children under one year of age.
- Parents should keep infants away from individuals with cough illness.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

PINWORMS

Pinworm infection is the most common intestinal worm infection in the United States. Pinworms are most often found in preschool and school-aged children and their parents. These small worms are found in the human intestine and crawl out of the rectum at night to lay eggs on the anal area.

CAUSE *Enterobius vermicularis*, a parasite.

SYMPTOMS Itching of the anal area (especially at night), irritability, and disturbed sleep.

SPREAD Pinworms are spread when uninfected people touch the anal area of an infected person (e.g., during diaper changing) or handle contaminated pajamas, underwear, or bedding and then touch their mouth. Spread can also occur when infected people do not wash their hands well after scratching the anal area and then touch food or other objects, which are then eaten or touched by an uninfected person. Pinworms do not come from pets – only from other people.

INCUBATION It takes 2 to 8 weeks from the time a person is exposed until symptoms start.

CONTAGIOUS PERIOD As long as eggs are present. Eggs can cause infection even when they have been outside the body for as long as 2 to 3 weeks.

EXCLUSION Childcare and School: None.

DIAGNOSIS Recommend parents/guardians call their healthcare provider if they suspect pinworms. The whole family may need to be examined.

TREATMENT Usually medication is given in a single dose at the time of diagnosis and then another dose is given in two weeks.

PREVENTION/CONTROL

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after using the toilet, after contact with the anal area, handling bedding or underclothing, and before eating or preparing food. Use a fingernail brush when washing hands.

- Discourage children from scratching or touching bare anal area and from biting their nails. Encourage children to keep their nails short.

- For several days after treatment, all bedding and underclothing should be handled carefully, should not be shaken, and should be laundered promptly.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Pinworms

Pinworms are small worms that live in the human intestine (gut) and crawl out at night to lay eggs in the anal area.

If you think your child has Pinworms:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  <u>Childcare and School</u>:

  No.

Symptoms

Your child may have itching of the anal area, especially at night. Your child may be fussy and wake often at night.

If your child is infected, it may take 2 to 8 weeks for symptoms to start.

Spread

- By touching the anal area of an infected person. This can happen while changing a diaper.
- By handling contaminated pajamas, underwear, or bedding.
- By having contact with contaminated food, objects, or surfaces.

Contagious Period

As long as eggs are present. Eggs can cause infection even after being off of the body for 2 to 3 weeks.

Call your Healthcare Provider

♦ If you suspect pinworms. The whole family may need to be examined. Your doctor may prescribe a medication.

Prevention

- Wash hands after using the toilet or changing diapers and before preparing food or eating. Your child may need help with handwashing.
- Avoid scratching or touching bare anal area or biting nails. Keep nails short.
- Clean and disinfect any objects that come in contact with feces. This includes toilets (potty chairs), sinks, toys, and diaper changing areas.
- Wash every morning (a shower is best) using a fresh washcloth and towel. Wear clean underwear each day. Handle sheets, blankets, and underwear of infected children carefully. Avoid shaking the items and wash dirty laundry promptly.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

PNEUMOCOCCAL INFECTION

Consult the health department before posting/distributing Parent/Guardian fact sheet.

Pneumococcal disease is an infection caused by a type of bacteria called ***Streptococcus pneumoniae*** (pneumococcus). There are different types of pneumococcal disease, such as pneumococcal pneumonia, bacteremia, meningitis, and otitis media. *Streptococcus pneumoniae* is not the same bacteria that causes strep throat.

CAUSE *Streptococcus pneumoniae* bacteria.

SYMPTOMS Symptoms of ear infection can include fever, ear pain, pulling at the ear, behavior or appetite change, and sometimes ear redness or drainage.

More serious pneumococcal infections include lung infection (pneumonia), bloodstream infection (septicemia), and infection of the brain (meningitis).

SPREAD Persons may "carry" pneumococcus in their nose or throat, also referred to as being colonized, meaning that the bacteria grow there without causing illness. Spread may occur when a "carrier" of the pneumococcus bacteria coughs or sneezes the bacteria into the air and another person breathes them in. By touching the secretions from the nose and mouth of an infected/colonized person then touching your eyes, nose, or mouth.

INCUBATION Varies by type of infection and can be as short as 1 to 3 days.

CONTAGIOUS PERIOD Unknown.

EXCLUSION None, if the child is well enough to participate in routine activities.

DIAGNOSIS Recommend parents/guardians call their healthcare provider if their child has a high fever or persistent ear pain.

TREATMENT Pneumococcal infections are often treated with antibiotics.

PREVENTION/CONTROL

- **Pneumococcal conjugate vaccine (PCV) should be given to all children at 2, 4, and 6 months, plus a booster at 12 to15 months of age.**
- Pneumococcal polysaccharide vaccine (PPSV) should be given to children over the age of 2 who have certain chronic illnesses that limit the effectiveness of the immune system or that predispose children to serious pneumococcal infection. A healthcare provider can determine the need for this vaccine.
- Unnecessary antibiotic use or not taking antibiotics as prescribed (not finishing the entire prescription or sharing the antibiotics with others) contribute to the development of antibiotic-resistant bacteria.

PREVENTION/CONTROL (CONTINUED)

- Cover nose and mouth with a tissue when coughing and sneezing or cough/sneeze into your sleeve. Dispose of used tissues.

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after contact with secretions from the nose or mouth.

- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Pneumococcal Infection

Pneumococcus (*Streptococcus pneumoniae*) is a bacteria that can cause ear and lung infections.

If you think your child has a Pneumococcal Infection:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  No, if the child is healthy enough for routine activities.

Symptoms

Your child may have fever, ear pain, or pull on their ear. Sometimes there is ear drainage and redness. Your child may change behavior or eating habits.

Spread

- By coughing or sneezing.
- By touching secretions from the nose or mouth.

Contagious Period

Unknown.

Call your Healthcare Provider

♦ If your child has a high fever or ear pain that does not stop. Antibiotics may be prescribed.

Prevention

- Ensure your child has received pneumococcal vaccine.
- Cover nose and mouth when coughing and sneezing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with secretions from the nose or mouth. Your child may need help with handwashing.
- Clean and disinfect anything that comes in contact with secretions from the nose or mouth. Use a product that kills bacteria.
- DO NOT expose your child to second-hand tobacco smoke. Smoke increases the risk for serious respiratory infections and middle ear infections.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

PNEUMONIA

Pneumonia (inflammation of the lung) is a serious respiratory condition. Pneumonia can be a complication of other illnesses and can occur throughout the year. Infants and young children who experience common respiratory viruses and are exposed to second-hand tobacco smoke are at increased risk of developing bronchiolitis, bronchitis, pneumonia, and middle ear infections.

CAUSE Many different viruses, most commonly respiratory syncytial virus (RSV) and influenza virus, and some bacteria. Most of these viruses or bacteria can cause other illnesses, and not all persons exposed to them will develop pneumonia. Physical and chemical irritants may also cause pneumonia.

SYMPTOMS May have runny nose, mild cough, and fever several days before developing pneumonia. Rapid breathing, chest pain, cough, and usually fever will occur.

SPREAD Viruses and bacteria are spread from person-to-person by touching the secretions from the nose and mouth of an infected person. Spread may also occur by touching the hands, tissues, or other items soiled with nose and mouth secretions from an infected person and then touching your eyes, nose, or mouth.

INCUBATION Depends upon the germ that is causing the illness.

CONTAGIOUS PERIOD From shortly before symptoms begin and while the child feels sick.

EXCLUSION Childcare and School: Until fever is gone and the child is well enough to participate in routine activities.

DIAGNOSIS Recommend parents/guardians call their healthcare provider if their child has a high fever or persistent sore throat or cough.

TREATMENT The healthcare provider will decide if treatment is needed.

DO NOT GIVE ASPIRIN or SALICYLATE-CONTAINING MEDICATIONS TO ANY CHILD OR ADOLESCENT UNDER 18 YEARS OF AGE.

PREVENTION/CONTROL

- Cover nose and mouth with a tissue when coughing and sneezing or cough/sneeze into your sleeve. Dispose of used tissues.
- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after touching the secretions from the nose or mouth.
- DO NOT share cups, glasses, or eating utensils.
- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. Clean and sanitize dishes and silverware after each use. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Pneumonia

Many different viruses and some bacteria can cause pneumonia (inflammation of the lungs).

If you think your child has Pneumonia:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  <u>Childcare and School</u>:

  Yes, until fever is gone and your child is healthy enough for routine activities.

DO NOT give aspirin or salicylate-containing medicines to anyone under 18 years of age.

Symptoms

Your child may have a runny nose, cough, fever, rapid breathing, and chest pain.

Spread

- By sneezing or coughing.
- By touching contaminated hands, surfaces, or objects.

Contagious Period

Shortly before and while your child has symptoms.

Call your Healthcare Provider

♦ If your child has a high fever or a sore throat or a cough that does not go away.

Antibiotics do not work for illnesses caused by a virus, including colds and certain respiratory infections.

Prevention

- Cover nose and mouth when sneezing or coughing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with the secretions from the mouth or nose. Your child may need help with handwashing.
- Clean and disinfect anything that comes in contact with secretions from the nose or mouth. Use a product that kills bacteria and viruses.
- DO NOT expose your child to second-hand tobacco smoke. Smoke increases the risk for serious respiratory infections and middle ear infections.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

RESPIRATORY INFECTION (VIRAL)

Many different viruses may cause colds and viral respiratory illnesses with fever. These illnesses are very common during fall and winter months. Infants and young children who experience common respiratory infections and are also exposed to second-hand tobacco smoke are at increased risk of developing bronchiolitis, bronchitis, pneumonia, and middle ear infections.

CAUSE Many different viruses.

SYMPTOMS Include runny nose, sneezing, chills, tiredness, fever, muscle aches, sore throat, and cough which may last two to seven days.

SPREAD Viruses are spread from person-to-person by touching the secretions from the nose and mouth of an infected person and by touching the hands, tissues, or other items soiled with nose and mouth secretions from an infected person and then touching your eyes, nose, or mouth.

INCUBATION It may take up to10 days after exposure for symptoms to start.

CONTAGIOUS PERIOD Shortly before symptoms begin through the duration of acute symptoms. This may last from 5 to 8 days.

EXCLUSION Childcare and School: Until fever is gone and the child is well enough to participate in routine activities.

DIAGNOSIS Recommend parents/guardians call their healthcare provider if their child has a high fever or persistent sore throat or cough.

TREATMENT These are viral illnesses; therefore, antibiotics will not be effective.

DO NOT GIVE ASPIRIN or SALICYLATE-CONTAINING MEDICATIONS TO ANY CHILD OR ADOLESCENT UNDER 18 YEARS OF AGE.

PREVENTION/CONTROL

- Cover nose and mouth with a tissue when coughing and sneezing or cough/sneeze into your sleeve. Dispose of used tissues.
- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after contact with secretions from the nose or mouth.
- DO NOT share cups, glasses, or eating utensils.
- Clean and disinfect commonly touched surfaces (door knobs, refrigerator handle, water faucets, cupboard handles) at least daily. Clean and sanitize mouthed objects and surfaces at least daily and when soiled. Clean and sanitize all dishes and silverware after each use. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Respiratory Infection

Many different viruses can cause respiratory infections (or colds) with fevers.

If you think your child has a Respiratory Infection:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  Yes, until fever is gone and your child is healthy enough for routine activities.

DO NOT give aspirin or salicylate-containing medicines to anyone under 18 years of age.

Symptoms

Symptoms may include a runny nose, chills, muscle aches, and a sore throat. Your child may sneeze and cough and be more tired than usual. Check your child for a fever. Symptoms last about 7 days.

If your child is infected, it may take up to 10 days for symptoms to start.

Spread

- By sneezing or coughing.
- By touching contaminated hands, surfaces, or objects.

Contagious Period

Shortly before and while your child has symptoms.

Call your Healthcare Provider

- If your child has a high fever or a sore throat or a cough that does not go away.

  Antibiotics do not work for illnesses caused by a virus, including colds and respiratory infections.

Prevention

- Cover nose and mouth when sneezing or coughing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with the secretions from the mouth or nose. Your child may need help with handwashing.
- DO NOT share drink containers and cups or silverware. Wash all dishes with hot soapy water between uses.
- Clean and disinfect anything that comes in contact with secretions from the nose or mouth. Use a product that kills bacteria and viruses.
- DO NOT expose your child to second-hand tobacco smoke. Smoke increases the risk for serious respiratory infections and middle ear infections.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

RESPIRATORY SYNCYTIAL VIRUS (RSV) INFECTION

RSV infection is a common respiratory illness that can affect persons of any age. It is the most common cause of bronchiolitis and pneumonia in infants and children under 2 years of age. RSV infection spreads quickly to adults and children alike. Outbreaks of RSV occur almost every year during the winter and early spring.

CAUSE Respiratory syncytial virus.

SYMPTOMS Symptoms can be similar to a mild cold with low-grade or no fever, cough, watery eyes, runny nose, nasal stuffiness, and sneezing. However, the more severe form includes wheezing, as seen in bronchiolitis. Lung congestion can be seen in pneumonia. Infants infected during the first few weeks of life may only show tiredness, irritability, and loss of appetite and may have episodes where they stop breathing for short time periods (apnea) with few other respiratory signs.

RSV infection can be especially serious in infants who were born prematurely or those with heart, lung, or immune system problems. However, severe lower respiratory tract disease may occur at any age, especially in the elderly or those with heart, lung, or immune system problems. People usually have moderate to severe cold-like symptoms. You can have more than one RSV infection during your lifetime.

SPREAD By close contact with droplets containing RSV that are expelled from the nose and mouth of an infected person during sneezing or coughing. By touching the secretions from the nose and mouth of an infected person and also by touching hands, tissues, or other items soiled with these secretions and then touching your eyes, nose, or mouth. The virus can live on hands for one-half hour or more and on environmental surfaces for several hours.

INCUBATION It takes 2 to 8 days, usually 4 to 6 days, from the time a person is exposed until symptoms start.

CONTAGIOUS PERIOD The virus is usually found in respiratory secretions for 3 to 8 days, although some infants can spread RSV for as long as 3 to 4 weeks.

EXCLUSION Childcare: Until fever is gone and the child is well enough to participate in routine activities.

DIAGNOSIS Recommend parents/guardians call their healthcare provider if their child has symptoms of RSV. There is a lab test to detect RSV.

TREATMENT Antiviral treatment is not recommended for routine use but may be considered for use in select patients with documented potentially life threatening RSV infection.

DO NOT GIVE ASPIRIN or SALICYLATE-CONTAINING MEDICATIONS TO ANY CHILD OR ADOLESCENT UNDER 18 YEARS OF AGE.

PREVENTION/CONTROL

- Cover nose and mouth with tissue when coughing or sneezing or cough/sneeze into your sleeve. Dispose of used tissues.

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after contact with secretions from the nose or mouth.

- DO NOT share cups, glasses, or eating utensils.

- Clean and disinfect commonly touched surfaces (door knobs, refrigerator handle, water faucets, cupboard handles) at least daily. (See pgs 35-41)

- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. Clean and sanitize all dishes and silverware after each use. (See pgs 35-41)

- Certain high-risk infants (e.g., premature babies) can be given a medication to prevent infection. Have the parents/guardians talk to their healthcare provider.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Respiratory Syncytial Virus

Respiratory Syncytial Virus (RSV) is a common viral infection.

If you think your child has RSV:

- Tell your childcare provider.
- **Need to stay home?**

  Childcare:

  Yes, until fever is gone and the child is healthy enough for routine activities.

DO NOT give aspirin or salicylate-containing medicines to anyone under 18 years of age.

Symptoms

Your child may have a cough, watery eyes, runny nose or stuffiness, or sneezing. Symptoms may last for 7 days.

People with severe RSV may wheeze and/or have lung congestion. RSV can be serious for premature babies and people with heart, lung, or immune system problems.

If your child is infected, it may take 2 to 8 days for symptoms to start.

Spread

- By sneezing or coughing.
- By touching contaminated hands, surfaces, or objects.

Contagious Period

For 3 to 8 days. Some infants can spread RSV for up to 4 weeks.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms. Your doctor may want to test for the virus. Infants who are hospitalized may be treated with a special medication called an antiviral drug.

Prevention

- Cover nose and mouth when sneezing or coughing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with the secretions from the mouth or nose. Your child may need help with handwashing.
- DO NOT share drink containers and cups or silverware. Wash all dishes with hot soapy water between uses.
- Clean and disinfect anything that comes in contact with secretions from the nose or mouth. Use a product that kills viruses.
- Some babies, including infants who were born prematurely, can be given a medication to prevent infection. Talk to your healthcare provider.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

RINGWORM

Ringworm is a fungal infection of the body, scalp, or feet. The scalp infection is most common in children, whereas infection of the feet is more common in adolescents and adults.

CAUSE Several different types of fungus. (It is not a worm.)

SYMPTOMS

Body - Appears as flat, spreading, ring-shaped areas on the skin (lesions). The edge of the lesion may be dry and scaly or moist and crusted. As the lesion spreads outward, the center often becomes clear.

Scalp - May be hard to detect in the early stages. It often begins as a small scaly patch on the scalp and may progress to larger areas of scaling. Mild redness, swelling, itching, and pustules (pus-filled bumps) may occur. Infected hairs become brittle and break off easily.

Feet - (Also called athlete's foot.) Scaling or cracking of the skin, especially between the toes, or blisters containing thin, watery fluid may be seen. Itching is common. Serious problems can include bacterial skin infection (cellulitis) and fungal infections of the toenails.

SPREAD May occur by touching the lesions of infected persons or pets (usually dogs and cats); by sharing objects that touched the lesions of an infected person, (e.g., hats, caps, combs, brushes, towels, pillows, bedding, sofas, clothing, hair ribbons, barrettes); or having contact with skin scales containing fungi on shower stalls or floors, swimming pool decks, and locker room benches or floors.

INCUBATION

Body - 4 to 10 days after exposure for symptoms to appear.

Scalp - 10 to 14 days.

Feet - Unknown

CONTAGIOUS PERIOD Contagious as long as lesions are present. Contagiousness is reduced once treatment has begun.

EXCLUSION Childcare or School: Until treatment has been started or if the lesion cannot be covered. If on the scalp, until 24 hours after treatment has been started.

Any child with ringworm should not participate in gym, swimming, and other close contact activities that are likely to expose others until after treatment has begun or the lesions can be completely covered.

Sports: Follow athlete's healthcare provider's recommendations and the specific sports league rules for return to practice and competition.

DIAGNOSIS Recommend parents/guardians call their healthcare provider if they suspect ringworm in household members. Contact a veterinarian if you suspect a pet has ringworm.

TREATMENT

Body - Antifungal ointments are used on skin lesions for 4 weeks. May require oral medication if lesions are extensive.

Scalp - Medications should be taken by mouth (oral) for 4 to 8 weeks. Antifungal shampoos may also be prescribed.

Foot - Antifungal ointments for 1 to 4 weeks. Oral medications may need to be taken for 6 to 8 weeks for severe or recurring problems.

PREVENTION/CONTROL

- Wash hands after touching lesions on humans and pets.
- Ensure lesions are completely covered.
- Wash combs and brushes in hot, soapy water, if used by the infected person.
- Check for signs of infection in all pets in the childcare and school setting. Have a veterinarian evaluate any pet with a skin infection or problem. If infection is present, treatment should be started as soon as possible.

  If the pet has ringworm, children should not be allowed to have contact with the pet until the rash has been treated and heals.
- DO NOT allow sharing of personal items such as brushes, combs, towels, bedding or pillows, clothing, hats, caps, hair ribbons, barrettes, and head gear (helmets).
- Have separate bedding and pillows for each child at the childcare.
- Wash bedding in hot, soapy water daily while a person is infected.
- Provide separate storage space for personal items for each child or staff member.
- Vacuum carpeted areas and upholstered furniture regularly.
- **Schools/Public facilities:**
  - Require shower shoes (e.g., flip-flops or water sandals) be worn in locker rooms or showers or on pool decks.
  - Exclude from using locker rooms, showers, or pools when active lesions are present if not covered by a waterproof bandage.
  - Disinfect showers and dressing rooms daily with an EPA-approved disinfectant.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Ringworm

Ringworm is a fungal infection. It is not a worm. The scalp infection is most common in children. Infection of the feet is more common in adolescents and adults.

If you think your child has Ringworm:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  Yes, until treatment has been started or if lesion cannot be completely covered. If on the scalp, until 24 hours after treatment has been started.

  Activities: Limit gym, swimming, and other close contact activities if the lesion cannot be covered or until after treatment has begun.

  Sports: Athletes follow your healthcare provider's recommendations and the specific sports league rules.

Symptoms

Body - Flat, spreading, round shapes on the skin. If your child is infected, it may take 4 to 10 days for symptoms to start.

Scalp - Begins as a small scaly patch on the scalp and may cover more of the head. Mild redness, swelling, itching, and pustules (pus-filled bumps) may occur. Infected hairs become brittle and break off easily. If your child is infected, it may take 10 to 14 days for symptoms to start.

Feet (athlete's foot) - Scaling or cracking of the skin or blisters. Itching is common.

Spread

- By touching the infected skin of a person or pet (usually, dogs and cats).
- By sharing or touching contaminated objects. Objects

Contagious Period

As long as you can see the ringworm on your child's skin. Once treatment has begun your child is less contagious.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms. Your doctor will decide if treatment is needed. It is important to follow your doctor's treatment directions exactly.
- ♦ If you think a pet has ringworm, call a veterinarian.

Prevention

- Wash hands after touching infected skin on humans and pets. Your child may need help with handwashing.
- Cover skin lesions.
- Wash bedding, clothing, combs and brushes in hot, soapy water.
- Check all household members and all pets for signs of infection.
- DO NOT let children touch an infected pet's skin until it has been treated and heals.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

ROSEOLA

Roseola is a common rash illness that usually occurs in children under 4 years of age. It is the most common cause of rash in children 6 months to 2 years of age.

CAUSE Human herpesvirus 6.

SYMPTOMS Usually a high fever that appears suddenly and generally lasts 3 to 7 days. As the fever breaks, a rash appears on the trunk and neck and may later spread to the rest of the body. The rash may last from several hours to several days. At this time, the child usually does not feel very sick. Infection also occurs without symptoms in many children. Seizures may occur in children with high fevers.

Persons with weakened immune systems may have more severe disease and symptoms may last longer.

SPREAD Most likely person-to-person through respiratory secretions.

INCUBATION Estimated to be 9 to 10 days.

CONTAGIOUS PERIOD Most likely during the fever and before the rash appears.

EXCLUSION Childcare: Until fever is gone and other rash illnesses, especially measles, have been ruled out.

DIAGNOSIS Recommend parents/guardians call their healthcare provider if their child has fever and rash.

TREATMENT None.

PREVENTION/CONTROL

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after touching anything contaminated with secretions from the nose and mouth and before preparing or eating food.

- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Roseola

Roseola is a viral rash. It is the most common cause of rashes in children 6 months to 2 years of age.

If you think your child has Roseola:

- Tell your childcare provider.
- **Need to stay home?**

  Childcare:

  Yes, until the fever is gone and other rash illnesses, especially measles, have been ruled out.

Symptoms

Your child may have a high fever that starts suddenly and generally lasts for a few days. As the fever breaks, a rash appears on the child's belly, chest, back, and neck. It may later spread to the rest of the body. Even with a rash, your child may still feel okay. Illness may last up to 7 days.

If your child is infected, it may take 9 to 10 days for symptoms to start.

Spread

- By touching the secretions from the nose or mouth.

Contagious Period

Most likely during the fever and before the rash appears.

Call your Healthcare Provider

- If your child has a fever and a rash.

Prevention

- Wash hands after touching anything that could be contaminated with secretions from the nose or mouth. Your child may need help with handwashing.
- Clean and disinfect any objects or surfaces that come in contact with secretions from the nose or mouth. Use a product that kills viruses.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

ROTAVIRAL INFECTION

Diarrhea caused by rotavirus is common in infants and young children during the winter months. It can spread quickly to others, including adult caregivers, in childcare settings.

CAUSE Rotaviruses.

SYMPTOMS Vomiting, fever, and watery diarrhea. Sometimes a cough, runny nose, or ear infection is present. Symptoms may last 4 days or longer. Children with rotavirus diarrhea are sometimes hospitalized because of dehydration.

SPREAD Rotaviruses leave the body through the feces of an infected person and enter another person when hands, food, or objects (such as toys) contaminated with feces are placed in the mouth. Spread can occur when people do not wash their hands after using the toilet or changing diapers. Also, rotavirus can be spread through droplets that are expelled from the nose and mouth during sneezing and coughing.

INCUBATION It takes about 1 to 3 days from the time a person is exposed until symptoms begin.

CONTAGIOUS PERIOD From 1 to 2 days before until 10 days after symptoms begin.

EXCLUSION Childcare: Until the child has been free of diarrhea for at least 24 hours.

School: None, unless the child is not feeling well and/or has diarrhea. Further exclusion may be necessary during outbreaks.

DIAGNOSIS Recommend parents/guardians call their healthcare provider if their child has the symptoms of rotavirus infection. There is a lab test to detect the virus in the feces.

TREATMENT No specific treatment is available. Vomiting and diarrhea may lead to dehydration, which may be a medical emergency. Ask a healthcare provider how to prevent dehydration.

PREVENTION/CONTROL

- The FDA has approved RotaTeq™ and Rotarix™ vaccines to prevent rotavirus. RotaTeq™ is licensed for infants 6 to 32 weeks of age and is given by mouth as a three-dose series. Maximum age for last dose is 8 months. Rotarix™ is licensed for infants 6 to 24 weeks of age and is given orally as a two-dose series. A different vaccine for rotavirus (Rotashield™) was withdrawn from the market in 1999 due to an increased risk of intussusception, a blockage or twisting of the intestines. Studies of RotaTeq™ and Rotarix™ show that they do not cause an increased risk of intussusception.

- Cover nose and mouth with a tissue when coughing or sneezing, or cough/sneeze into your sleeve. Dispose of used tissues.

  Regular and thorough handwashing is the best way to prevent the spread of communicable diseases. Wash hands thoroughly with soap and warm running water after using the toilet, after changing diapers and before preparing or eating food. Staff should closely monitor or assist all children, as appropriate, with handwashing after children have used the bathroom or been diapered.

PREVENTION/CONTROL (CONTINUED)

- Clean and disinfect diapering area and potty chairs after each use and bathroom toilets, sinks, and toys at least daily and when soiled. (See pgs 35-41)

- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Rotavirus

Rotavirus is a viral infection of the intestines.

If you think your child has Rotavirus:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare:

  Yes, until the child has been free of diarrhea for at least 24 hours.

  School:

  No, unless the child is not feeling well and/or has diarrhea and needs to use the bathroom frequently.

Symptoms

Your child may have watery diarrhea, vomiting, or fever. Also may have a cough, runny nose, or ear infection. Illness may last 4 days or longer.

If your child is infected, it may take 1 to 3 days for symptoms to start.

Spread

- By eating or drinking contaminated food or beverages.
- By coughing or sneezing.
- By touching contaminated hands, surfaces, or objects.

Contagious Period

The illness can spread as long as the virus is in the feces. A person is contagious for 1 to 2 days before to 10 days after symptoms start.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms. There is a medical test to detect the virus. No specific treatment is available.
- ♦ Ask how to prevent dehydration. Your child may become dehydrated due to vomiting or diarrhea.

Prevention

- Cover nose and mouth when sneezing or coughing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with the secretions from the mouth or nose or with feces and before preparing food or eating. Your child may need help with handwashing.
- Clean and disinfect any objects that come in contact with feces or secretions from the nose or mouth. This includes toilets (potty chairs), sinks, toys, and diaper changing areas. Use a product that kills viruses.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

RUBELLA (GERMAN MEASLES)

Reportable to local or state health department

Consult the health department before posting/distributing Parent/Guardian fact sheet.

Rubella (German measles) is a viral illness that may be prevented through vaccination. If a pregnant woman develops rubella, the baby can become infected and develop serious problems known as congenital rubella syndrome (CRS). **If a pregnant woman is exposed to rubella, she should call her healthcare provider immediately; particularly if she does not know whether she is immune (has had rubella disease or vaccine in the past). (**See pgs 29-30 for more information on rubella and pregnancy.)

CAUSE Rubella virus.

SYMPTOMS Low-grade fever, swollen glands in the area behind the ears and in the neck, and rash. Rash usually appears first on the face and moves from head to foot. The rash usually lasts 3 days. Adults, especially women, may have sore or swollen joints. This joint pain usually lasts for less than one month. Up to half of all persons have no symptoms. Rarely, encephalitis (inflammation of the brain) may occur.

SPREAD When a person with rubella coughs or sneezes tiny droplets with rubella virus into the air and another person breathes them in. People can also get infected from touching these secretions and then touching their mouth, eyes, or nose.

INCUBATION It takes 14 to 23 days, usually 16 to 18 days, from the time a person is exposed until the symptoms begin.

CONTAGIOUS PERIOD From 7 days before until 5 to 7 days after the rash begins.

EXCLUSION Childcare and School: Until 7 days after the rash appears.

Exclude unvaccinated children and staff for at least 3 weeks after the onset of rash in the last person who developed rubella.

DIAGNOSIS A blood test for rubella should be done 3 to 5 days after the symptoms begin. Other laboratory specimens may be collected.

TREATMENT Recommend parents/guardians call their healthcare provider.

PREVENTION/CONTROL

- Unvaccinated people who have been exposed to rubella should call their healthcare provider or local public health clinic as soon as possible to be vaccinated.
- Encourage parents/guardians to notify the childcare provider or school when their child is vaccinated so their records can be updated.

PREVENTION/CONTROL (CONTINUED)

- Recommend staff stay home if they develop symptoms of rubella. Encourage parents/guardians keep their child home if they develop a rash, fever, and swollen glands behind the ears or neck.

- Cover your nose and mouth with a tissue when coughing or sneezing, or cough/sneeze into your sleeve. Dispose of used tissues.

- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. (See pgs 35-41)

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after contact with secretions from the nose or mouth.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Rubella

Rubella is a viral illness that may be prevented through vaccination.

If you think your child has Rubella:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  Yes, until 7 days after the rash appears.

If a case of rubella occurs in your childcare or school, public health will inform unvaccinated children and staff how long they will need to stay home.

Symptoms

Your child may have fever, rash, and swollen glands. The rash usually appears first on the face and moves toward the feet and typically lasts 3 days. Other symptoms may include runny nose, headache, malaise, and conjunctivitis.

If your child has been infected, it may take 14 to 23 days for symptoms to start.

Spread

- By coughing and sneezing.
- By touching contaminated objects or surfaces.

Contagious Period

From 7 days before until 7 days after the rash begins.

Call your Healthcare Provider

If anyone in your home:

- was exposed to rubella and has not had rubella disease or rubella vaccine in the past.
- develops a rash, fever, and swollen glands. A blood test may be done.
- is pregnant and/or develops a rash. This is important because the baby can become infected.

Prevention

- All children by the age of 15 months must be vaccinated against rubella or have an exemption for childcare enrollment. An additional dose of rubella is highly recommended for kindergarten or two doses by eighth grade enrollment.
- When a rubella outbreak is identified, susceptible individuals should be excluded or vaccinated. Exclusion should continue until 3 weeks after the onset of rash of the last reported case-patient in the outbreak setting.
- Parents should keep infants away from individuals suspected of having rubella.
- People who have close contact with infants should be up-to-date on their immunizations.
- Cover nose and mouth when coughing and sneezing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with secretions from the nose or mouth. Your child may need help with handwashing.
- Clean and disinfect anything that comes in contact with secretions from the nose or mouth. Use a product that kills viruses.
- DO NOT share anything that you put in your mouth, for example, beverage containers, eating utensils, cigarettes, toothbrushes, and lip balm.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

SALMONELLOSIS

Reportable to local or state health department

Consult the health department before posting/distributing Parent/Guardian fact sheet.

Outbreaks of *Salmonella* infections are unusual in childcare and school settings, but can occur, especially in settings where children are in diapers or have contact with reptiles.

CAUSE *Salmonella* bacteria.

SYMPTOMS Diarrhea, cramps, nausea, headache, fever, and sometimes vomiting. Infected persons may show mild symptoms or may not have any symptoms at all. Illness usually lasts 4 to 7 days.

SPREAD *Salmonella* bacteria leave the body through the feces of an infected person and enter another person when hands, food, or objects (such as toys) contaminated with feces are placed in the mouth. Spread can occur when people do not wash their hands after using the toilet or changing diapers. Spread can also occur through contact with reptiles, farm animals, and infected pets (usually puppies, kittens, or chicks).

Most outbreaks of salmonellosis are associated with eating undercooked or raw food items that are contaminated with feces, such as eggs, poultry, meat, fruits, and vegetables.

INCUBATION It takes 6 to 72 hours, usually 12 to 36 hours, from the time a person is exposed until symptoms start. It can be as long as 8 days before symptoms develop.

CONTAGIOUS PERIOD As long as *Salmonella* is present in the feces, a person may pass the bacteria on to other people. *Salmonella* can be present in feces for several weeks after symptoms have stopped.

EXCLUSION Childcare: Until the child has been free of diarrhea for at least 24 hours.

School: None, unless the child is not feeling well and/or has diarrhea. Further exclusion may be necessary during outbreaks.

Symptomatic staff with *Salmonella* should be restricted from working in food service until free of diarrhea for at least 24 hours.

*If a case of *Salmonella typhi* is identified in a childcare center or school, please consult with your local or state health department. Each situation must be looked at individually to determine appropriate control measures to implement.

DIAGNOSIS Recommend parents/guardians call their healthcare provider if their child has symptoms of salmonellosis. There is a lab test to detect *Salmonella* in the feces.

TREATMENT Antibiotic treatment is not usually given. Vomiting and diarrhea may lead to dehydration, which may be a medical emergency. Ask a healthcare provider how to prevent dehydration.

PREVENTION/CONTROL

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after using the toilet or changing diapers and before preparing or eating food. Staff should closely monitor or assist all children, as appropriate, with handwashing after children have used the bathroom or been diapered.

- Animals can carry *Salmonella*. Chicks, ducklings, reptiles (e.g., pet turtles, iguanas, snakes), and amphibians commonly carry *Salmonella* and are not recommended for childcare/school settings. Wash your hands after touching animals.

- Clean and sanitize diapering area and potty chairs after each use and bathroom toilets, sinks, and toys at least daily and when soiled. (See pgs 35-41)

- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. (See pgs 35-41)

- **Food Safety**

  - Thoroughly cook all foods that come from animals, especially poultry.
  - Store all uncooked meat and poultry in the refrigerator on a shelf lower than any other foods and keep separate from produce, cooked foods, and ready-to-eat foods.
  - DO NOT serve unpasteurized milk or juices.
  - Use pasteurized eggs and milk in food that will not be cooked.
  - Wash and sanitize all cutting boards, knives, utensils, or dishes that have been used for raw meat or poultry before using with uncooked foods, such as fruits or vegetables, or cooked foods.
  - Use a thermometer to make sure correct temperatures are reached when cooking foods. Check with the local environmental health agency for appropriate temperatures.
  - Restrict students from sharing any communal food items that are brought from home. In the classroom, children should not serve themselves food items that are not individually wrapped. The teacher should hand out these items after washing his/her hands. (This is not intended to discourage family-style serving in the absence of an outbreak.)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Salmonellosis

Salmonellosis is a bacterial infection of the intestines.

If you think your child has Salmonellosis:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare:

  Yes, until free of diarrhea for at least 24 hours.

  School:

  No, unless the child is not feeling well and/or has diarrhea.

Symptoms

Your child may have diarrhea, cramps, headache, vomiting, or fever. Illness may last up to 7 days.

If your child is infected, it generally takes 6 to 72 hours for symptoms to start.

Spread

- By eating or drinking contaminated food or beverages.
- By touching contaminated hands, surfaces, or objects.
- By handling chicks, ducklings, reptiles, and amphibians.

Contagious Period

The illness can spread as long as *Salmonella* bacteria are in the feces. This could be for several weeks.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms. There is a medical test to detect the bacteria.
- ♦ Ask how to prevent dehydration. Your child may become dehydrated due to vomiting or diarrhea.

Prevention

- Wash hands after using the toilet or changing diapers, especially before preparing food or eating. Your child may need help with handwashing.
- Clean and sanitize any objects that come in contact with feces. This includes toilets (potty chairs), sinks, toys, and diaper changing areas. Use a product that kills bacteria.
- Animals can carry *Salmonella*. Chicks, ducklings, reptiles (e.g., pet turtles, iguanas, snakes), and amphibians commonly carry *Salmonella.* Wash your hands after touching animals.
- Cook foods thoroughly and do not drink unpasteurized milk or juice.
- Always sanitize food preparation surfaces.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

SCABIES

Scabies is an infestation caused by tiny mites that burrow and lay eggs under the skin. If scabies has been reported in the childcare or school setting, parents/guardians should check their child for a rash.

CAUSE *Sarcoptes scabiei*, a mite.

SYMPTOMS Rash consisting of pink bumps or tiny blisters and intense itching, which may be more severe at night. Frequently only scratch marks can be seen. Common locations to see the rash are folds of skin between fingers, around wrists and elbows, and armpits. Other areas where rash may appear are knees, waist, thighs, genital area, abdomen, chest, breasts, and lower portion of buttocks. Infants and young children may be infested on head, neck, palms, and soles of feet.

SPREAD By frequent or prolonged direct contact with the skin of a person with scabies (also during sexual contact) or by sharing bedding, towels, or underclothing of a person with scabies. Mites cannot survive off the human body for more than 3 days and cannot reproduce off the body.

INCUBATION It takes 2 to 6 weeks from the time a person is exposed until symptoms appear. Symptoms may appear in 1 to 4 days if the person has had scabies before.

CONTAGIOUS PERIOD From the time a person acquires the mites (before rash appears) until 24 hours after treatment begins.

EXCLUSION Childcare and School: Until after treatment has been completed.

DIAGNOSIS Recommend parents/guardians call their healthcare provider if they suspect scabies in their household members. Skin scrapings should be examined to identify the mites.

TREATMENT The healthcare provider will prescribe a medication, usually a cream or lotion. There are several prescription scabicides. **Directions must be followed carefully**.

- Itching and rash may not go away immediately after treatment. It often takes 2 to 3 weeks for rash and itching to go away.
- It is recommended that household members are treated, particularly those with prolonged direct skin-to-skin contact. Other people to consider for treatment are the babysitter, boyfriend/girlfriend, and non-custodial parent.

PREVENTION/CONTROL

- Wash bedding and towels used in the past 48 hours in hot water and dry in a hot dryer at the time of treatment. Items that cannot be laundered should be sealed in a bag for one week.

- Vacuum upholstered furniture and carpeting (if dealing with case(s) of Norwegian (encrusted) scabies). DO NOT use insecticide sprays**.**

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Scabies

Scabies is caused by tiny mites that live under the skin. Check your child for a rash.

If you think your child has Scabies:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  Yes, until after treatment has been completed.

Symptoms

Your child may itch the most at night. Look for a rash of pink bumps or tiny blisters. Sometimes, you can only see scratch marks. Common locations for the rash and itching are between fingers, around wrists and elbows, and armpits. Infants and young children may be infested on head, neck, palms, and bottoms of feet.

People without previous exposure may develop symptoms in 2 to 6 weeks. People who were previously infested are sensitized and may develop symptoms in 1 to 4 days.

Spread

- By having repeated direct contact with the skin of a person with scabies.
- By sharing bedding, towels, or clothing that was used by a person with scabies.

The mites cannot live off the human body for more than 3 days. They cannot reproduce off the body or on pets.

Contagious Period

From when a child gets the mites until 24 hours after treatment begins. A child is contagious before the rash.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms. Your doctor may do a test and/or give a medication, usually a cream or lotion.
- ♦ Even with treatment, it often takes 2 to 3 weeks for rash and itching to go away. Ask your doctor who in the household needs to be treated.

Prevention

- At time of treatment, wash items used in the past 48 hours in hot water and put them in a hot dryer. Examples of things to wash are underwear, pajamas, bedding, and towels. Items that cannot be washed should be sealed in a plastic bag for one week.
- Vacuum upholstered furniture and carpeting. DO NOT use insecticide sprays.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

SHIGA TOXIN-PRODUCING *ESCHERICHIA COLI* (STEC) INFECTION AND HEMOLYTIC UREMIC SYNDROME (HUS)

Reportable to local or state health department

Consult the health department before posting/distributing Parent/Guardian fact sheet.

CAUSE All STEC to include *E. coli* subtype O157:H7.

SYMPTOMS Watery or bloody diarrhea, stomach cramps, and low-grade fever. Some infected persons may have mild symptoms or no symptoms at all.

In some cases, people infected with STEC can develop HUS, which is a serious disease that affects the kidneys and the blood's ability to clot. HUS is more common in children than in adults.

SPREAD STEC bacteria leave the body through the feces of an infected person and enter another person when hands, food, objects (such as toys) contaminated with feces are placed in the mouth, or through contact with cattle or the farm environment. Cattle are a source of these bacteria. These bacteria can easily spread from person to person, especially from children in diapers.

Outbreaks have been linked to ground beef, exposure to animals in public settings including petting zoos, unpasteurized dairy products or fruit juices, raw fruits and vegetables, salami, yogurt, drinking water, and recreational water.

INCUBATION For most *E. coli* strains is 10 hours to 6 days; for STEC, the incubation period usually is 3 to 4 days (range from 1 to 10 days) from exposure until symptoms develop.

CONTAGIOUS PERIOD STEC bacteria can be transmitted as long as it is in the feces. STEC typically disappear from the feces by the time the illness is resolved, but may be shed for several weeks, even after symptoms go away. Young children tend to carry STEC longer than adults. A few people keep shedding these bacteria for several months.

EXCLUSION Childcare: Until diarrhea has ceased for 24 hours, and two follow-up tests at the state public health laboratory obtained at least 24 hours apart have tested negative. Specimens should not be obtained earlier than 48 hours after discontinuation of antibiotics. Further requirements may be necessary during outbreaks.

The child care should be closed to new admissions during the outbreaks, and no transfer of exposed children to other centers should be allowed.

School: None, unless the child is not feeling well and/or has diarrhea. Further exclusion may be necessary during outbreaks.

No one with STEC should use swimming beaches, pools, water parks, spas, or hot tubs until 2 weeks after diarrhea has stopped.

Food service employees with STEC infection should be excluded from working in food service. An employee may return to work once they are free of the STEC infection based on test results showing 2 consecutive negative stool specimens that are taken at least 24 hours after diarrhea ceases, not earlier than 48 hours after discontinuation of antibiotics, and at

EXCLUSION (Continued)

least 24 hours apart; or the food employee may be reinstated once they have been asymptomatic for more than 7 calendar days.

Outbreaks:

Screenings should be conducted by the Missouri State Public Health Lab.

Other restrictions may apply; call your local/state health department for guidance.

DIAGNOSIS

Recommend parents/guardians call their healthcare provider if their child has symptoms of STEC or HUS.

TREATMENT

Diarrhea caused by STEC usually goes away after a few days without any treatment. Antibiotics and drugs to stop diarrhea are usually not recommended because they may actually increase the likelihood of HUS. Treatment of HUS usually requires hospitalization and often dialysis (artificial kidney) and blood or platelet transfusions. Vomiting and diarrhea may lead to dehydration, which may be a medical emergency.

PREVENTION/CONTROL

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after using the toilet and changing diapers and before preparing or eating food. Staff should closely monitor/assist handwashing of all children, as appropriate, after they have used the bathroom or have been diapered.

- Restrict students from sharing any communal food items that are brought from home. In the classroom, children should not serve themselves food items that are not individually wrapped. The teacher should hand out these items after washing his/her hands. (This is not intended to discourage family-style serving in the absence of an outbreak.)

- Avoid having contact with cattle, particularly calves, at a petting zoo or farm. Wash hands thoroughly with soap and warm running water after touching any animals.

- Clean and disinfect diapering area and potty chairs after each use and bathroom toilets, sinks, and toys at least daily and when soiled. (See pgs 35-41)

- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. (See pgs 35-41)

- **Food Safety**
  - Thoroughly cook all hamburger or ground beef until it is brown, not pink, inside and the juices are clear. Heat kills the bacteria. Use a thermometer to ensure that the internal temperature of the meat is at least 155 ^{o} F.
  - DO NOT drink unpasteurized milk or fruit juices.
  - Wash and disinfect all cutting boards, knives, utensils, or dishes that have been used for raw meat before using with uncooked foods, such as fruits or vegetables, and cooked foods.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

STEC	*SHIGA TOXIN-PRODUCING ESCHERICHIA COLI (STEC) INFECTION* can cause a bacterial infection of the intestines.

If you think your child has *STEC*

- Tell your childcare provider and call the school.
- **Need to stay home?**

  Childcare:

  Yes, until diarrhea has ceased for 24 hours, and two follow-up tests at the state public health laboratory obtained at least 24 hours apart have tested negative.

  School:

  No, unless the child is not feeling well and/or has diarrhea.

Symptoms

Your child may have watery or bloody diarrhea, stomach cramps, and fever. Most people get better within 5-7 days. Some infections are very mild, but others may result in life-threatening complications such as Hemolytic Uremic Syndrome (HUS).

If your child is infected with STEC, it may take 1 to 10 days for symptoms to start.

Spread

- By eating or drinking contaminated food or beverages.
- By touching contaminated hands, surfaces, or objects.
- By handling pets and farm animals.

Contagious Period

STEC bacteria can be transmitted as long as it is in the feces. STEC typically disappear from the feces by the time the illness is resolved, but may be shed for several weeks, even after symptoms go away. Young children tend to carry STEC longer than adults. A few people keep shedding these bacteria for several months.

Call your Healthcare Provider

- ♦ If anyone in your home is suspected of having STEC.
- ♦ Ask how to prevent dehydration. Your child may become dehydrated due to vomiting and diarrhea.

Prevention

- Wash hands after using the toilet and changing diapers and before preparing food or eating. Your child may need help with handwashing.
- Clean and disinfect any objects that come in contact with feces. This includes toilets (potty chairs), sinks, toys, and diaper changing areas. Use a product that kills bacteria.
- Farm animals (especially cattle and calves) can carry STEC. Wash your hands after touching pets and farm animals.
- Cook food thoroughly and do not drink unpasteurized milk or juice. Always sanitize food preparation surfaces.
- Anyone with STEC should not use swimming beaches, pools, water parks, spas, or hot tubs until 2 weeks after the diarrhea has stopped.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

SHIGELLOSIS

Reportable to local or state health department

Consult the health department before posting/distributing Parent/Guardian fact sheet.

CAUSE *Shigella* bacteria.

SYMPTOMS Diarrhea (may be watery), fever, stomach cramps, nausea, or vomiting. Feces may contain blood or mucus. Infected persons may have mild symptoms or may not have any symptoms at all. Illness usually lasts 4 to 7 days.

SPREAD *Shigella* bacteria leave the body through the feces of an infected person. Spread can occur when people do not properly wash their hands after using the toilet or changing diapers. If not removed by good handwashing, the *Shigella* bacteria may contaminate food or objects (such as toys) and infect another person when the food or object is placed in that person's mouth. Spread can occur whether or not an infected person feels sick.

INCUBATION It takes from 1 to 7 days, usually 2 to 4 days, from the time a person is exposed until symptoms start.

CONTAGIOUS PERIOD As long as *Shigella* bacteria are present in the feces, a person can pass the bacteria on to other people. For some children, the bacteria can be found in the feces up to 4 weeks after illness.

EXCLUSION Childcare: Children and staff with diarrhea should be excluded from childcare until they are well. The child care should be closed to new admissions during the outbreaks, and no transfer of exposed children to other centers should be allowed. Shigellosis is transmitted easily and can be severe, so all symptomatic persons (employees and children) should be excluded from childcare setting in which *Shigella* infection has been identified, until diarrhea has ceased for 24 hours, and one (1) stool culture is free of *Shigella* spp. Specimens should not be obtained earlier than 48 hours after discontinuation of antibiotics. Antimicrobial therapy is effective in shortening the duration of diarrhea and eradicating organisms from feces.

School: None, unless the child is not feeling well and/or has diarrhea. Further exclusion may be necessary during outbreaks.

No one with *Shigella* should use swimming beaches, pools, spas, water parks, or hot tubs until 1 week after diarrhea has stopped.

Food service employees infected with *Shigella* bacteria should be excluded from working in food service. An employee may return to work once they are free of the *Shigella* infection based on test results showing 2 consecutive negative stool cultures that are taken at least 24 hours after diarrhea ceases, not earlier than 48 hours after discontinuation of antibiotics, and at least 24 hours apart; or the food employee may be reinstated once they have been

EXCLUSION (Continued)

asymptomatic for more than 7 calendar days.

Outbreaks:

Screenings should be conducted by the Missouri State Public Health Lab.

Other restrictions may apply; call your local/state health department for guidance.

DIAGNOSIS

Recommend parents/guardians call their healthcare provider if their child has symptoms of shigellosis. There is a lab test to detect *Shigella* in the feces.

TREATMENT

If *Shigella* bacteria are found, antibiotic treatment is available. Children and staff in childcare settings should be treated. *Shigella* bacteria can be resistant to one or more antibiotics, so physicians should test to see which antibiotics are effective. Vomiting and diarrhea may lead to dehydration, which may be a medical emergency. Ask a healthcare provider how to prevent dehydration.

PREVENTION/CONTROL

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after using the toilet or changing diapers and before preparing or eating food. Staff should closely monitor or assist all children, as appropriate, with handwashing after children have used the bathroom or been diapered.

- Restrict students from sharing any communal food items that are brought from home. In the classroom, children should not serve themselves food items that are not individually wrapped. The teacher should hand out these items after washing his/her hands. (This is not intended to discourage family-style serving in the absence of an outbreak.)

- DO NOT allow children to swallow water when swimming in lakes, swimming pools, hot tubs, water parks, or fountains.

- Clean and sanitize diapering area and potty chairs after each use and bathroom toilets and sinks at least daily and when soiled. (See pgs 35-41)

- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Shigellosis

Shigellosis is a bacterial infection of the intestines.

If you think your child has Shigellosis:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare:

  Yes, until the child has been free of diarrhea for at least 24 hours and one stool culture is negative.

  School:

  No, unless the child is not feeling well and/or has diarrhea.

Symptoms

Your child may have diarrhea (may be watery and/or contain blood or mucus), stomach cramps, nausea, vomiting, or fever. Illness may last 4 to 7 days.

If your child is infected, it may take 1 to 7 days for symptoms to start.

Spread

- By eating or drinking contaminated food or beverages.
- By touching contaminated hands, surfaces, or objects.

Contagious Period

The illness can spread as long as *Shigella* bacteria are in the feces. This could be for up to 4 weeks.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms. There is a medical test to detect the bacteria. Antibiotic treatment is available.
- ♦ Ask how to prevent dehydration. Your child may become dehydrated due to vomiting and diarrhea.

Prevention

- Wash hands after using the toilet or changing diapers and before preparing food or eating. Your child may need help with handwashing.
- Clean and sanitize any objects that come in contact with feces. This includes toilets (potty chairs), sinks, toys, and diaper changing areas. Use a product that kills bacteria.
- No one with shigellosis should use swimming beaches, pools, water parks, spas, or hot tubs until 1 week after the diarrhea has stopped.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

SHINGLES (ZOSTER)

Shingles (zoster) is caused by the varicella-zoster virus that remains inactive (dormant) in the body of people who have had chickenpox (varicella). You get shingles from your own chickenpox virus, not from someone else. This usually occurs when the immune system is weakened for various reasons, including certain illnesses or conditions, or treatments, or aging. Although shingles usually occurs in adulthood, children who were infected with varicella in utero or during infancy may develop shingles during childhood.

CAUSE Varicella-zoster virus, a member of the herpesvirus family.

SYMPTOMS Severe pain, itching, and numbness along certain nerve pathways, commonly involving one side of the body. About 1 to 3 days later, a red rash appears at the site. Clusters of blisters appear soon after, usually on one side of the body and closer together than in chickenpox. The blisters dry out and crust over within a few days. The rash and pain usually disappear within 3 to 5 weeks.

Shingles is a milder illness in children than in adults, but it can be a serious illness in those who have weakened immune systems.

SPREAD A person must have already had chickenpox disease in the past to develop shingles. Shingles does not spread from one person to another as shingles. When people who have not had chickenpox have contact with the fluid from the shingles blisters, they can develop chickenpox.

INCUBATION None.

CONTAGIOUS PERIOD In an otherwise healthy person, from the start of the rash until all the blisters have crusted.

EXCLUSION Childcare and School: None, if blisters can be completely covered by clothing or a bandage. If blisters **cannot** be covered, exclude until the blisters have crusted. Persons with severe, disseminated shingles should be excluded regardless of whether the sores can be covered.

TREATMENT Antiviral medications may be prescribed.

DO NOT GIVE ASPIRIN or OTHER SALICYLATE CONTAINING MEDICATIONS TO ANY CHILD OR ADOLESCENT UNDER 18 YEARS OF AGE.

PREVENTION/CONTROL

- Pregnant women or persons with weakened immune systems who have not had chickenpox and are exposed to shingles virus should call their healthcare provider immediately for possible treatment. Vaccine is contraindicated during pregnancy. (See pgs 31-32 for information on varicella-zoster and pregnancy.)

- **Thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after contact with fluid from blisters or sores.

PREVENTION/CONTROL (CONTINUED)

- Susceptible persons (those who have not had chickenpox or varicella vaccine in the past) who have been exposed to someone with shingles should call their healthcare provider immediately to prevent chickenpox. Getting varicella vaccine within 3 days, and possibly up to 5 days, of exposure may prevent chickenpox in these people.

- Clean and disinfect all objects and surfaces contaminated with blister fluid at least daily and when soiled. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Shingles

Shingles (zoster) is caused by the varicella-zoster virus that remains in the body after a child has chickenpox (varicella).

If you think your child has Shingles:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  No, if blisters can be covered with clothing or bandage.

  Yes, if blisters cannot be covered by clothing or bandages, until the blisters have crusted.

Symptoms

At first, your child may have a lot of pain and itching. Numbness is common around the trunk or on the face. A red rash appears about 1 to 3 days later. Next, clusters of blisters appear. They are usually on one side of the body. The blisters crust over within a few days.

The rash and pain usually disappear in 3 to 5 weeks.

Spread

Shingles does not spread from person-to-person as shingles. If someone who has not had chickenpox in the past touches the fluid from the shingles blisters they may get chickenpox.

Contagious Period

From 1 to 2 days before the rash to crusting of all lesions.

Call your Healthcare Provider

If anyone in your home:

- ♦ has symptoms. Treatment may be available.
- ♦ was exposed to shingles and has not had chickenpox or the chickenpox (varicella) vaccine in the past or is pregnant.

Prevention

- Wash hands after contact with fluid from blisters or sores. Your child may need help with handwashing.
- Cover blisters with clothing or bandages.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

STAPH SKIN INFECTION

Staphylococcus aureus (*S. aureus* or staph) bacteria can commonly be found in the nose and on the skin of healthy people. When staph is present on or in the body without causing illness, it is called colonization. Because staph is so often present on skin, it is the leading cause of skin and soft tissue infections. Over time, 20% of the population will almost always be colonized with *S. aureus*, 60% of the population will be colonized with *S. aureus* off and on, and another 20% are almost never colonized.

CAUSE *Staphylococcus aureus* bacteria.

SYMPTOMS Local redness and warmth of the infected area with or without pus. Examples of localized infections are boils, impetigo, wound infections, and infections of hair follicles (folliculitis). Such infections can result in a pustule (bump on the skin filled with pus) that can become reddened, hard, and painful. Most infections are uncomplicated, but the bacteria can get into the bloodstream and other body sites and cause severe illness.

SPREAD By contact with hands, skin drainage, or secretions from the nose of a person who is infected or colonized.

INCUBATION Variable. A long delay may occur between colonization with staph and when the symptoms of infection begin.

CONTAGIOUS PERIOD As long as infection or colonization lasts. Persons who have draining infections are shedding more bacteria and are more infectious than persons who are only colonized.

EXCLUSION Childcare and School: If draining sores are present and cannot be completely covered and contained with a clean, dry bandage or if the person cannot maintain good personal hygiene.

Children who are only colonized do not need to be excluded.

Activities**:** Children with draining sores should not participate in activities where skin-to-skin contact is likely to occur until their sores are healed. This means no contact sports.

TREATMENT Children with skin infections need to be referred to a licensed healthcare provider for diagnosis and treatment. Childcare/school personnel should notify parents/guardians when possible skin infections are detected.

Some strains of staph have developed resistance to some antibiotics. Such strains are known as methicillin-resistant *Staphylococcus aureus* or "MRSA." (See MRSA fact sheet on pgs 145-147)

PREVENTION/CONTROL

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after touching body secretions or skin drainage of an infected or colonized person.

PREVENTION/CONTROL (CONTINUED)

- Wear disposable medical gloves when touching any draining sores or changing bandages.
- Have persons who are prone to staph skin infections do self-care, if age appropriate. They should take care to keep their skin clean and dry and do first aid care when an injury (cut, scrape, etc.) occurs.
- Keep wounds clean and covered with a bandage.
- Dispose of bandages in a plastic bag immediately to prevent contamination of surfaces. Close the plastic bag and dispose in the trash.
- DO NOT allow sharing of personal items such as towels, washcloths, bar soap, combs, razors, or clothing.
- Wash bedding (linens) separately from other laundry in hot water with detergent. Dry bedding in a hot dryer.
- Clean and disinfect contaminated surfaces or objects daily or when soiled. (See pgs 35-41)
- Food handlers with open sores should wear waterproof disposable gloves and wash their hands routinely.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Staph Infection

Staphylococcus aureus (*S. aureus* or staph) bacteria are the leading cause of skin and soft tissue infections.

If you think your child has a Staph Infection:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  Yes, if draining sores cannot be completely covered and contained with a clean, dry bandage.

  No, if child is only colonized.

  Activities:
  Avoid activities where skin-to-skin contact is likely to occur until sores are healed. This means no contact sports.

Symptoms

Your child may have infected areas that are red and warm with or without pus. Examples are boils, impetigo, wound infections, and infections of hair follicles. Sometimes the staph bacteria can get into the bloodstream and other body sites and cause severe illness.

Your child may have staph bacteria "colonized" in the nose or on skin. This means that the bacteria may be there but it does not cause infection or harm.

If your child is infected, the time it will take for symptoms to start will vary by type of infection.

Spread

- By touching contaminated hands, skin drainage, pus, or secretions from the nose.

Contagious Period

As long as the infection or colonization is present. A child who has draining infections has more bacteria and is more contagious than a child who is only colonized.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms. Your doctor will decide what treatment is needed.

Prevention

- Wear disposable gloves when changing bandages. Wash hands after you touch any draining sores or change bandages. Your child may need help with handwashing.
- Keep wounds clean, dry, and covered with a bandage. Put used bandages in a plastic bag, close the plastic bag, and put it in the trash.
- Avoid sharing personal items such as washcloths, bar soap, combs, razors, or clothing.
- If possible, people with staph infections should do their own first aid on cuts/scrapes. This prevents spread to others.
- Keep contaminated laundry separate from other laundry. Wash clothes, bed sheets, and blankets in hot water with detergent and dry in a hot dryer.
- Clean and disinfect contaminated surfaces or objects. Use a disinfectant that kills *Staphylococcus aureus* bacteria.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

STREPTOCOCCAL INFECTION
(Strep Throat/Scarlet Fever)

Streptococcal sore throat (strep throat) and a strep throat with a rash (scarlet fever) are common infections in children.

CAUSE *Streptococcus* bacteria (Group A beta-hemolytic strep).

SYMPTOMS

Strep throat - Starts suddenly with fever, red sore throat, and swollen glands. Headache may occur. Nausea, abdominal pain, and vomiting may be more common in children.

Scarlet fever - A very fine raised rash (feels like sandpaper) is present. The rash blanches with pressure. The rash appears most often on the neck, chest, elbow, and groin, and in the inner thigh and folds of the armpit. Later on, there may be peeling of the skin on the fingertips and toes.

These illnesses are usually not serious; however, rare problems such as rheumatic fever (which can damage heart valves) or kidney disease may develop if children do not receive proper antibiotic treatment.

SPREAD Coughing or sneezing tiny droplets into the air and another person breathes them in.

INCUBATION It usually takes 2 to 5 days from the time a person is exposed until symptoms start.

CONTAGIOUS PERIOD Until 24 hours after antibiotic treatment begins.

EXCLUSION Childcare and School: Until 24 hours after antibiotic treatment begins and the child is without fever.

Children without symptoms, regardless of a positive throat culture, do not need to be excluded from childcare or school. Persons who have strep bacteria in their throats and do not have any symptoms (carriers) appear to be at little risk of spreading infection to those who live, go to childcare or school, or work around them.

Check with your local environmental health department to see if people with skin lesions need to be excluded from food handling.

DIAGNOSIS Recommend parents/guardians call their healthcare provider. Strep may be identified in the throat either by using a rapid strep test, which can provide results the same day, or by throat culture.

TREATMENT Oral or injectable antibiotics may be prescribed. Treatment may be dependent on how severe the infection is and will help prevent more serious illness such as rheumatic fever.

PREVENTION/CONTROL

- Cover nose and mouth when coughing or sneezing or cough/sneeze into your sleeve. Dispose of used tissues.

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after contact with secretions from the nose or mouth.

- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. (See pgs 35-41)

- Recommend a new toothbrush for the person with strep after they are no longer contagious.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Strep Throat

Strep throat and a strep throat with a rash (scarlet fever) are common bacterial infections in children.

If you think your child has Strep Throat:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  Yes, until 24 hours after antibiotic treatment begins and the fever is gone.

  Children who test positive for strep but do not show symptoms do not need to be excluded. They are unlikely to spread the infection to other people.

Symptoms

Strep throat - Your child may have a fever that starts suddenly, red sore throat, and swollen glands. Headache may occur. Children may have stomach pain and vomiting.

Scarlet fever - Rarely, a very fine raised rash appears at the same time as the throat soreness. The rash feels like sandpaper. The rash is most often on the neck, chest, elbow, and groin and in the inner thigh and folds of the armpit. Later on, the skin on the fingertips and toes may peel.

If your child is infected, it may take 2 to 5 days for symptoms to start.

Spread

- By coughing or sneezing.

Contagious Period

Until 24 hours after antibiotic treatment begins.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms. A doctor may do a lab test and give antibiotics.

Prevention

- Cover nose and mouth when coughing or sneezing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with secretions from the nose or mouth. Your child may need help with handwashing.
- Never share drink containers and cups or silverware. Wash all dishes with hot soapy water between uses.
- Clean and disinfect any objects that come in contact with the nose or mouth (especially mouthed toys). Use a product that kills bacteria.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

TICK-BORNE DISEASE

Reportable to local or state health departments

This fact sheet is for provider information only.
If you have questions, please call the health department.

DISEASE	TULAREMIA	RMSF	LYME/LYME-LIKE	EHLICHIOSIS	ANAPLASMA
SYMPTOMS	high fever, chills myalgia, headache, non-healing tick bite, swollen glands	fever, chills, myalgia, severe headache, anorexia, spotted rash	fever, malaise, headache, myalgia, arthralgia, mild neck stiffness, bull's eye rash	fever, headache, chills rigors, fatigue, muscle aches, arthralgia	fever, headache, chills rigors, fatigue, muscle aches, arthralgia
CAUSE	*Francesella tularensis*	*Rickettsia rickettsii*	Lyme: *Borrelia burgdorferi* Lyme-Like: Unknown	*Ehrlichia chaffeensis& E.ewingii*	*Anaplasma phagocytophilia*
INCUBATION	3-5 days with a range of 1-21 days	7 days with a range of 2-14 days	1-55 days with a median of 11 days	5-10 days with a median of 9 days	5-10 days with a median of 9 days
TICK INVOLVED					
American Dog tick: *Dermacenter variabilis*	yes	yes			
Lone star tick: *Amblyomma americanum*	yes			yes	no
Black legged tick or deer tick : *Ixodes scapularis*			yes	no	yes

SPREAD

Each disease is spread by the bite of a tick or contact with tick blood or feces. Tularemia is also spread by infected meat and blood of animals such as rabbits and cat bites. For more information about each of the above diseases see http://cdc.gov/DiseasesConditions. Click on the appropriate letter and follow the links.

Follow tick precautions: Wear light colored clothing, wear insect repellants, and do tick check of the full body every night after being in tick infested areas.

CONTAGIOUS PERIOD

None. They are not spread person-to-person.

EXCLUSION

Childcare and School: None.

DIAGNOSIS

Recommend parents/guardians call their healthcare provider if symptoms of any of the tick-borne diseases are present. Tick attachments may not be apparent.

DIAGNOSIS (CONTINUED)

Rashes may not be present or may be delayed. Blood tests are available but may not be specific. The Centers for Disease Control and Prevention recommends that confirmation testing be done in addition to the screening test to ensure more accurate results.

TREATMENT Each disease can be treated with antibiotics. Treatment works best if it is started early. Discuss treatment options with the healthcare provider.

PREVENTION/CONTROL

- Children should not handle sick or dead animals, both domestic pets and wild animals.
- Game meats should be cooked thoroughly.
- Avoid tick-infested areas, especially from April through September.
- Wear proper clothing when in endemic areas. Wear long pants, tuck pants into socks, wear a long sleeved shirt tucked into pants, and wear light-colored clothing so ticks are easier to see.
- Check for ticks on clothing and entire body while outdoors and when returning indoors. Check pets for ticks before letting them indoors.
- Remove ticks promptly. See http://www.cdc.gov/ticks/index.html. Always grasp the tick by the head or mouth parts and gently but steadily pull straight back. Squeezing the body may cause the tick to inject infected saliva or blood. **Do not** use petroleum jelly, nail polish, or burning matches to remove ticks.
- Apply insect repellants with 20% - 50% DEET on skin and clothing.
- Children 2 months and older, use a repellant with 30% DEET or less.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or your local health department.

TUBERCULOSIS (TB)

Reportable to local or state health department

This fact sheet is for provider information only.
If you have questions, please call the health department.

Tuberculosis (TB) is an infection that usually affects the lungs, but can affect any part of the body. TB can be life-threatening, but it is curable with antibiotic medications.

CAUSE *Mycobacterium tuberculosis* bacteria.

SYMPTOMS General symptoms of active TB disease may include feeling tired or sick, weight loss, fever, or night sweats. When active TB disease is in the lungs, there may be cough, chest pain, and possibly coughing up blood. Symptoms often develop gradually and worsen until treatment is started. If TB is elsewhere in the body, there may be other symptoms.

SPREAD When someone with TB disease in their lungs coughs, sneezes, yells, or sings, tiny droplets with *Mycobacterium tuberculosis* are released into the air and another person breathes in these droplets. Most healthy people who become infected with TB bacteria develop latent TB infection and have no symptoms.

INCUBATION The incubation period from infection to development of a positive Tuberculin Skin Test (TST) or Interferon Gamma Release Assay (IGRA) (blood test) result is 2 to 10 weeks. The risk of developing tuberculosis disease is highest during the 6 months after infection and remains high for 2 years; however, many years can elapse between initial tuberculosis infection and tuberculosis disease.

CONTAGIOUS PERIOD Only active TB disease of the lungs or voice box (larynx) is contagious. The contagious period varies from person to person, but usually from when the symptoms begin until the person has completed several weeks of adequate treatment and had significant clinical response to therapy and had 3 consecutive negative sputum smear results. For MDR and XDR tuberculosis consult your state or local health department. TB disease in other parts of the body is usually not contagious. Young children, who lack capacity to cough forcefully, typically are not as contagious as adults.

EXCLUSION A person with a newly positive tuberculin skin test (TST) or interferon gamma release assay (IGRA) should see a healthcare provider as soon as possible after the positive test is detected for further evaluation and possible treatment. Consult with your local or state health department immediately. Each situation must be evaluated individually to determine whether the person is contagious and poses a risk to others. Latent tuberculosis infection and tuberculosis disease are reportable conditions in Missouri.

DIAGNOSIS Tuberculosis is diagnosed based on signs and symptoms, physical exam, TST/IGRA results, chest x-ray (if indicated), and laboratory exam of material obtained from cough specimens, other body fluids, or tissues.

TREATMENT

- Active tuberculosis disease is treated with multiple antibiotic medications for a minimum of 6 months or as long as 2 years. Latent TB infection is usually treated with a single antibiotic medication for 9 months to prevent the development of active TB disease.

PREVENTION/CONTROL

- Tuberculosis testing is not universally recommended for Missouri children, including those attending childcare.

- Persons exposed to active, infectious TB disease should have a TST or IGRA performed. If the first TST is negative, another TST may be needed to determine if infection has developed.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

VIRAL MENINGITIS

Consult the health department before posting/distributing Parent/Guardian fact sheet.

Viral meningitis is an infection of the meninges (a thin lining covering the brain and spinal cord) and is caused by any one of a number of different viruses. It occurs most often in children; however, anyone can get viral meningitis. Almost all of the cases occur as single, isolated events.

CAUSE Enteroviruses cause most (about 90%) of the cases in the United States. Occasionally, viral meningitis is also associated with mumps or herpes virus infections. Illnesses caused by enteroviruses (e.g., coxsackie viruses, echoviruses) usually occur in the summer and early fall. Arboviruses, which are carried by mosquitoes, typically cause encephalitis, but can also cause viral meningitis.

SYMPTOMS Start suddenly with fever, headache, stiff neck, fatigue, and rash. Sore throat, nausea, vomiting, and diarrhea may also occur. In babies symptoms are harder to identify. They may include fever, fussiness or irritability, difficulty walking, or refusing to eat.

SPREAD Enteroviruses are spread by touching feces or touching secretions from the nose or mouth of an infected person. Spread may also be possible when touching objects or surfaces contaminated with feces or secretions from the nose or mouth. Most people who are exposed to enteroviruses will not get viral meningitis.

INCUBATION Usually within one week from the time a person is exposed until symptoms appear, but could range from 2 to 21 days, depending on the virus.

CONTAGIOUS PERIOD Varies depending on the organism causing the infection. For enteroviruses: Beginning 3 days after being infected until 10 days after symptoms start and possibly for several weeks after illness (through contact with feces).

EXCLUSION Childcare: Until the fever is gone or diarrhea has stopped and the child is well enough to participate in routine activities.

School: None, if the child is well enough to participate in routine activities.

DIAGNOSIS Often the symptoms of viral meningitis and bacterial meningitis (meningococcal disease) are similar. While viral meningitis is rarely fatal, bacterial meningitis can be very serious and result in disability or death if not treated promptly. A healthcare provider will make the diagnosis based on clinical symptoms or may perform lab tests.

TREATMENT Recommend parents/guardians call their healthcare provider.

PREVENTION/CONTROL

- Cover nose and mouth when coughing or sneezing or cough/sneeze into your sleeve. Dispose of used tissues.

PREVENTION/CONTROL (CONTINUED)

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after using the toilet, changing diapers, handling anything soiled with feces, and contact with secretions from the nose or mouth and before preparing food or eating.

- DO NOT allow sharing of eating utensils (forks, spoons) and drinking containers (cups, glasses).

- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. Clean and sanitize dishes and silverware after every use. (See pgs 35-41)

- Clean and disinfect diapering area and potty chairs after each use and bathroom toilets, sinks, and toys at least daily and when soiled. (See pgs 35-41)

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Viral Meningitis

Viral meningitis affects the thin lining covering the brain and spinal cord. It is usually caused by enteroviruses.

If you think your child has Viral Meningitis:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare:

  Yes, until fever and/or diarrhea is gone and your child is healthy enough for routine activities.

  School:

  No, if the child is healthy enough to participate in routine activities.

Symptoms

Your child may be unusually tired and suddenly have a fever, headache, stiff neck and/or rash. Other symptoms may be sore throat, diarrhea, and vomiting.

It is hard to tell if babies have viral meningitis. Babies with the virus may have a fever. They may also be fussy, refuse to eat, or be difficult to wake.

If your child is infected, it may take from 2 to 21 days for symptoms to start. It usually takes 7 days.

Spread

- By sneezing or coughing.
- By touching contaminated hands, surfaces or objects. Feces from infected people can also carry the bacteria.

Contagious Period

For 3 days before until 10 days after symptoms start. Virus may be in the feces for several weeks.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms. Your doctor may want to test for the virus.

Prevention

- Cover nose and mouth when sneezing or coughing. Use a tissue or your sleeve. Dispose of used tissues.
- Wash hands after touching anything that could be contaminated with the secretions from the mouth or nose or with feces. Your child may need help with handwashing.
- DO NOT share drink containers and cups or silverware. Wash all dishes with hot soapy water between uses.
- Clean and sanitize anything that comes in contact with secretions from the nose or mouth or with feces. This includes toilets (potty chairs), sinks, toys, and diaper changing areas. Use a product that kills viruses.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

WARTS

Warts are skin growths caused by a virus. Common and flat warts are seen most often in younger children and plantar warts in school-aged children.

CAUSE Human papillomavirus.

SYMPTOMS

Common - Dome-shaped and have a rough appearance. They usually grow on the fingers, on the backs of the hands, and around the nails but may be more common where skin is broken (e.g., bitten fingernails or picked hangnails). Black dots in a wart are produced by broken blood vessels.

Plantar (foot) - Usually seen on the bottoms of the feet. Most of these warts flatten because the pressure of walking pushes them back into the skin. They can be very painful. They may also have black dots.

Flat - Smaller and smoother than other warts. They tend to grow in large numbers (20 to 100) at a time and can grow anywhere. However, in children they are most common on the face. They are found in the beard area of men and on the legs of women.

SPREAD Passed from person-to-person, sometimes indirectly from contaminated objects, such as locker room floors, showers, or pool decks. The virus more easily enters the body through an area of skin that is moist, peeling, or cracked.

INCUBATION It can take from several months to years for symptoms to begin.

CONTAGIOUS PERIOD Unknown; probably as long as the wart is present.

EXCLUSION Childcare and School: None.

DIAGNOSIS Recommend parents/guardians call their healthcare provider.

TREATMENT Based on the type of wart.

PREVENTION/CONTROL

- Discourage children from biting their nails or picking their hangnails.
- Encourage students to do basic first aid when they have an injury (e.g., cut or scrape), if appropriate for age group.
- Encourage children to wear shower shoes (e.g., flip-flops or water sandals) in locker rooms and showers or on pool decks.
- DO NOT allow sharing personal items such as razors or nail clippers.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Warts

Warts are skin growths caused by a virus. Common and flat warts are seen most often in younger children and plantar warts in school-aged children.

If you think your child has Warts:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  No.

Symptoms

Common - Dome-shaped and have a rough appearance. Check the fingers, on the backs of the hands, and around the nails. They may be more common where a child has bitten fingernails or picked hangnails.

Plantar (foot) - Usually seen on the bottoms of the feet. Most of these warts flatten because the pressure of walking pushes them back into the skin. They can be very painful.

Flat - Smaller and smoother than other warts. They tend to grow in large numbers (20 to 100) at a time. They can grow anywhere on the body.

If your child is infected, it may take several months to years before symptoms start.

Spread

- From person to person.
- By touching contaminated objects, such as locker room floors, showers, or pool decks.

Contagious Period

Probably as long as the wart is present.

Call your Healthcare Provider

- Your doctor will decide if treatment is needed.

Prevention

- Avoid biting your nails or picking your hangnails. Keep nails trimmed.
- Take care to keep feet and hands clean and dry. Do basic first aid when an injury (cut, scrape, etc.) occurs.
- Wear shoes like flip-flops or water sandals in locker rooms and showers or on pool decks.
- Avoid sharing personal items such as razors.
- Clean and disinfect contaminated areas. Use a product that kills viruses.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

YEAST INFECTION (CANDIDIASIS)

Candida can normally be found on the skin and in the mouth, throat, intestinal tract, and vagina of healthy people. In children, yeast infections are commonly found in the mouth or throat (thrush) or the diaper area.

CAUSE *Candida albicans*, a fungus.

SYMPTOMS

Thrush - White, slightly raised patches on the tongue or inside the cheek.

Diaper Rash - Smooth, shiny "fire engine" red rash with a raised border. Children who suck their thumbs or fingers may occasionally develop *Candida* infections around their fingernails.

Under certain conditions, such as during antibiotic use or when skin is damaged and exposed to excessive moisture, the balance of the normal, healthy skin bacteria is upset. Therefore, yeast that normally lives on the skin can overgrow and cause yeast infections. Most of the time these infections heal quickly, but sometimes illness can occur in infants, persons with weakened immune systems, or those taking certain antibiotics.

SPREAD Rarely, by contact with skin lesions and mouth secretions of infected persons or asymptomatic carriers. Most infants who have *Candida* got it from their mother during childbirth.

According to the Centers for Disease Control and Prevention, outbreaks of thrush in childcare settings may be the result of increased use of antibiotics rather than newly acquired *Candida* infections.

INCUBATION Variable. For thrush in infants, it usually takes 2 to 5 days. For others, yeast infections may occur while taking antibiotics or shortly after stopping the antibiotics.

CONTAGIOUS PERIOD Contagious while lesions are present. Most infections occur from yeast in the person's own body.

DIAGNOSIS Recommend parents/guardians call their healthcare provider to identify the fungus.

EXCLUSION Childcare and School: None.

TREATMENT Anti-fungal medication may be prescribed.

PREVENTION/CONTROL

- **Regular and thorough handwashing is the best way to prevent the spread of communicable diseases.** Wash hands thoroughly with soap and warm running water after contact with secretions from the mouth or nose or the skin in the diaper area.
- Minimize contact with secretions from the nose or mouth of infected persons.
- Dispose of used tissues.

PREVENTION/CONTROL (CONTINUED)

- Clean and sanitize mouthed objects and surfaces at least daily and when soiled. (See pgs 35-41)
- Clean and sanitize bottle nipples and pacifiers daily. (See pgs 35-41)
- Recommend parents/guardians replace bottle nipples and pacifiers after treatment.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

Your child may have been exposed to:

Yeast

Yeast is a fungus that can cause infection. It is common to have yeast infections of the mouth or throat (thrush) or the diaper area (diaper rash).

If you think your child has a Yeast Infection:

- Tell your childcare provider or call the school.
- **Need to stay home?**

  Childcare and School:

  No.

Symptoms

Thrush - White, slightly raised patches on the tongue or inside the cheek. Sucking on fingers or thumbs may cause children to develop the infection around the fingernails.

Diaper Rash - Smooth, shiny, red rash with a raised border.

Spread

- Rarely, by touching skin lesions or secretions from the mouth.

Contagious Period

The illness can spread as long as sores are present.

Call your Healthcare Provider

- ♦ If anyone in your home has symptoms of thrush or diaper rash.

Prevention

- Wash hands after touching anything that could be contaminated with secretions from the nose or mouth and after changing diapers. Your child may need help with handwashing.
- Clean and disinfect objects that come in contact with secretions from the mouth or nose and diaper area. Use a product that kills fungus.
- Replace bottle nipples and pacifiers after treatment.

For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or call your local health department.

IMMUNIZATION WEB RESOURCES

Missouri Department of Health and Senior Services

http://health.mo.gov/living/wellness/immunizations/

Choose from the following:

- Information for Parent/Guardians and Adults
- Information for Providers
- Vaccines for Children (VFC) Program
- Immunization Schedules and Records
- Schools and Daycare Requirements
- Vaccine Safety
- Vaccines & Vaccine Preventable Diseases
- Publications
- Related Links
- Data & Statistical Reports
- Laws, Regulations & Manual

Immunization Action Coalition

www.immunize.org/

Centers for Disease Control – Vaccines and Immunizations

http://www.cdc.gov/vaccines/

For a list of immunization clinics in your area contact your local health department or Missouri Department of Health and Senior Services (MDHSS) Bureau of Immunization Assessment and Assurance at 573-751-6124 or 866-628-9891 (8-5 Monday thru Friday).

MISSOURI LAWS RELATED TO CHILDCARE SETTINGS AND SCHOOLS

According to Section 210.221(3), RSMo, the Department of Health and Senior Services has the authority to issue uniform rules deemed necessary and proper to establish standards of service and care to be rendered by child care providers. To implement these rules, the Section for Child Care Regulation (SCCR), within the Department of Health and Senior Services, is responsible for inspecting, evaluating and licensing child care providers. Each regulated provider has the contact information for their Child Care Facility Specialist from the SCCR posted near their license in their facility. The Central Office of the SCCR is in Jefferson City, and can be reached at 573-751-2450.

Child Care providers and facilities are required to have copies of the licensing rules available, and to be knowledgeable of these rules.

Child Care licensing rules can be found at:

http://www.sos.mo.gov/adrules/csr/current/19csr/19c30-62.pdf for Group Home and Child Care Centers

http://www.sos.mo.gov/adrules/csr/current/19csr/19c30-61.pdf for Family Day Care Homes

http://www.sos.mo.gov/adrules/csr/current/19csr/19c30-60.pdf for License Exempt Rules.

Group Homes and Child Care Centers 19 CSR 30-62.192
This rule sets forth the requirements for Child Care Centers and Group Homes for reporting communicable diseases, immunizations, caring for a child when ill, medication, emergency care and hand washing.

Family Child Care Homes 19 CSR 30-61.185
This rule outlines the requirements for reporting communicable diseases, caring for a child when ill, medication, emergency care, immunizations and hand washing.

License Exempt Child Care Facilities 19 CSR 30-60.060
This rule establishes health requirements for child care providers and children in license-exempt child care facilities. It includes the requirements for reporting communicable disease, immunizations, caring for a child when ill, medications, and emergency medical care.

In addition to inspections by Child Care Facility Specialists from the SCCR, child cares also receive annual sanitation inspections. These are requested by SCCR, and are conducted by the Bureau of Environmental Health Services, who can be reached at 573-751-6095. This department is also available to child care providers for consultation in the event of an outbreak of a communicable disease.

Missouri Statutes and Rules Related to Communicable Disease Control

- **167.181 RSMo** - Immunization of pupils against certain diseases compulsory
- **167.191 RSMo** - Children with contagious diseases not to attend school
- **192.020 RSMo** - To safeguard the health of the people of Missouri
- **192.067 RSMo** - Patients' medical records
- **199.180 RSMo** - Local health agency may institute proceedings for commitment
- **19 CSR 20-20.020** - Diseases and Conditions Reportable in Missouri
- **19 CSR 20-20.030** - Exclusion From School and Readmission
- **19 CSR 20-20.040** - Measures for the Control of Communicable, Environmental and Occupational Diseases
- **19 CSR 20-20.060** - Control Measures for Food Handlers
- **19 CSR 20-20.070** - Duties of Local Health Departments
- **19 CSR 20-20.075** - Confidentiality of Information Obtained for Reporting of Communicable, Environmental and Occupational Diseases and Conditions
- **19 CSR 20-28.010** - Missouri Immunization Requirements for School Children
- **19 CSR 20-28.040** - Day Care Immunization Rule

Communicable Disease Rule

Many diseases must be reported to the local health department and Department of Health and Senior Services. For more information, call Missouri Department of Health and Senior Services (MDHSS) at 573-751-6113 or 866-628-9891 (8-5 Monday thru Friday) or your local health department. For a list of reportable diseases see:http://health.mo.gov/living/healthcondiseases/communicable/communicabledisease/pdf/reportablediseaselist2.pdf.

EMERGENCY PREPAREDNESS

Since September 11, 2001, there has been a focus on having businesses, schools, and organizations develop an emergency response plan, highlighting how they will continue their essential business functions during an emergency. The plan should be comprehensive and cover how the organization will respond to "all hazards." The basic elements of the plan should be universal, although they may need to be adapted to fit the needs of your individual organization.

In any type of emergency, the goal is to have a plan in place that will: minimize damage, ensure the safety of staff, children, and students, protect vital records/assets, allow for self-sufficiency for at least 72 hours, and provide for continuity of your critical business operations. In addition, each organization should develop an appendix to their plan on how they would handle a long term event that could result in a significant reduction of workforce, such as an influenza pandemic.

The importance of planning prior to an event cannot be stressed enough. It is essential to have a written plan that has been discussed and practiced with all employees and discussed with children and their families. This preparation will allow everyone to know their roles and responsibilities when an emergency occurs. In addition to the organization having an emergency response plan, it is necessary for employees to have individual and family preparedness plans. An organization is only as prepared as their workers are. With everyone prepared, your organization will be in a better position to manage any type of emergency.

There are a number of resources listed on pages 225 to 229 that are available to help you create your organization's emergency plan.

Check with your local or state health department or childcare licensing groups, department of human services or department of education to see if they may be available to answer questions.

EMERGENCY PREPAREDNESS PLANNING RESOURCES FOR CHILDCARE

National Association of Child Care Resource & Referral Agencies (NACCRRA)
www.naccrra.org/disaster (Scroll to middle of page to find guides)

- *Is Child Care Ready?: A Disaster-Planning Guide for Child Care Resource & Referral Agencies*
  This guide is a practical toolkit for Child Care Resource & Referral (CCR&R) agencies to help child care programs – both in child care centers and providers' homes – keep children safe and their businesses open during and after natural disasters, terrorist attacks, chemical emergencies, and other catastrophes.

  - *Disaster Preparation: A Training for Child Care Centers*
    This guide is designed to assist CCR&Rs and others in training child care centers on disaster preparedness. It includes specific activities for training individuals who direct and work in child care centers.

  - *Disaster Preparation: A Training for Family Child Care Providers*
    This guide is intended to assist CCR&Rs and others in training family child care providers on disaster preparedness. It includes activities for training individuals who care for children in their homes.

  - *Emergency Planning Forms*
    The user-friendly forms offer templates for child care providers and others to use to fully prepare for disasters.

Emergency Response Planning for Child Care Providers Toolkit
www.naccho.org/pubs/product1.cfm?Product_ID=161 or
www.montgomerycountymd.gov/content/hhs/phs/APC/childcaremanual.pdf

- This toolkit is designed to prepare child care providers for emergency events and to assist in the recovery effort by helping children cope with the traumatic event. A train-the-trainer guide is included along with a CD that contains Microsoft PowerPoint presentations. You can download this toolkit for free or order hard copies for a fee on the NACCHO website. The Montgomery County web address will take you directly to the free PDF version.

Emergency/Disaster Preparedness Standards from Caring for Our Children, 2nd Edition
http://nrckids.org/

- This template was adapted from *Caring for Our Children, National Health and Safety Performance Standards: Guidelines for Out-of-Home Child Care.* This template was a joint collaborative project of the American Academy of Pediatrics, the American Public Health Association, and National Resource Center for Health & Safety in Child Care.

National Child Care Information Center (NCCIC)
www.nccic.acf.hhs.gov/emergency/

- The NCCIC Child Care Resources for Disasters and Emergencies website brings together information and key resources about emergency preparedness, disaster response, and recovery that relate specifically to child care.

Disaster Preparedness Worksheets for Children According to Age
http://www.cphd.ucla.edu/
http://www.cphd.ucla.edu/resources.html

- This page contains Disaster Kits for children according to age and those with diabetes and asthma.

Ready to Respond Emergency Preparedness Plan
www.brighthorizons.com/talktochildren/docs/emergency_plan.doc

- This plan covers medical emergencies, natural disasters, utility disruptions, fire emergencies, hazardous materials, bomb threats, violent situations, parent/guardian issues, hostage situations, and missing children.

Ready in Three: Child Care and School Preparedness
http://health.mo.gov/emergencies/readyin3/childcare.php

http://health.mo.gov/emergencies/readyin3/schools.php

- These websites cover information for child care providers when planning for any disaster including Pandemic influenza.

EMERGENCY PREPAREDNESS PLANNING RESOURCES FOR SCHOOLS

Planning and Checklists

http://pandemicflu.gov/index.html
http://www.ready.gov/index.html
www.aap.org/family/frk/frkit.htm

Ready in 3: three steps to prepare for any emergency

http://health.mo.gov/emergencies/readyin3/childcare.php
http://health.mo.gov/emergencies/readyin3/schools.php
http://health.mo.gov/emergencies/panflu/pangen.php
http://health.mo.gov/emergencies/readyin3/kids.php

Practical Information on Crisis Planning: A Guide for Schools & Communities

www.ed.gov/admins/lead/safety/emergencyplan/crisisplanning.pdf

Emergency Planning and Procedures Guide for Schools
Practice Good Hygiene

CDC
www.cdc.gov/germstopper/home_work_school.htm

National Science Foundation
www.scrubclub.org/home.aspx

Health Information Available in Different Languages

ECHO
www.echominnesota.org/

Washington State Dept of Health Fact Sheets
www.doh.wa.gov/phepr/factsheets.htm

CDC
www.cdc.gov/flu/avian/index.htm

INDIVIDUAL AND FAMILY EMERGENCY PREPAREDNESS

These sites are comprehensive and contain in-depth information on emergency planning for individuals, families with children, senior citizens, and persons with special needs, and those with pets. Many sites have several brochures that can be downloaded.

www.codeready.org
www.ready.gov
www.pandemicflu.gov
http://health.mo.gov/emergencies/readyin3/index.php
www.fema.gov
www.prepare.org
www.redcross.org

Additional Information to Prepare Children

The American Academy of Pediatrics has addressed emergency preparedness for children. The following are highlighted materials from the Academy's website:

Four Steps to Prepare Your Family for Disasters: Contains a section on what to tell children.
www.aap.org/disasters/

Family Readiness kit with information on different types of disasters and a readiness guide.
www.aap.org/family/frk/frkit.htm

Emergency Preparedness for Children with Special Health Care Needs.
www.aap.org/advocacy/emergprep.htm

Emergency Information Form for Children with Special Needs.
www.aap.org/advocacy/eif.doc

Emergency Information Link to planning for families of children with special needs.
http://www.disabilitypreparedness.gov/ppp/index.htm

Additional Information for Seniors

Guidance for seniors living in special care facilities.
http://health.mo.gov/emergencies/readyin3/senspecneeds.php

Additional Information for Special Populations

PrepareNow.org
www.preparenow.org/purpose.html

National Council on Disabilities
www.ncd.gov/

Pandemic Flu Websites

U.S. Government
www.pandemicflu.gov/

U.S. Department of Health and Human Services
www.hhs.gov/pandemicflu/plan/

World Health Organization (WHO)
www.who.int/csr/disease/influenza/pandemic/en/

Missouri Department of Health and Senior Services
http://health.mo.gov/emergencies/panflu/pangen.php

Avian Flu (Bird Flu) Websites

Center for Disease Control and Prevention (CDC)
www.cdc.gov/flu/avian/index.htm

U.S. Department of Agriculture (USDA)
www.usda.gov/wps/portal/usdahome?navtype=SU&navid=AVIAN_INFLUENZA

U.S. Geological Survey National Wildlife Health Center
www.nwhc.usgs.gov/disease_information/avian_influenza/index.jsp

World Health Organization (WHO)
www.who.int/csr/disease/avian_influenza/en/index.html

Information Available in Different Languages

Washington State Department of Health Fact Sheets
www.doh.wa.gov/phepr/factsheets.htm

Information for Volunteers

Medical Reserve Corps
www.medicalreservecorps.gov

Community Emergency Response Teams
www.citizencorps.gov/cert/

GLOSSARY

ACUTE: An infection that has a sudden onset and lasts a limited period of time, usually days or a few weeks.

ALCOHOL-BASED HAND RUB: Products that can be used to clean hands and perform the same function as soap and water. These products most commonly have 70% alcohol as the active ingredient.

ANAL AREA: The area around where the stool comes out, also called rectal area.

ANTIBIOTIC: Powerful medications that fight infection-causing bacteria. Antibiotics are used to treat infections/diseases caused by bacteria, but they cannot kill viruses and cannot cure or stop the spread of diseases caused by viruses.

ANTIBIOTIC MISUSE: Taking or prescribing antibiotics when they are not needed (such as for a viral infection), stopping antibiotics when feeling better and not finishing the prescription, saving antibiotics for a future illness, or giving someone antibiotics prescribed for someone else.

ANTIBIOTIC-RESISTANT BACTERIA: Bacteria that have mutated (or changed) so that antibiotics that are meant to kill them are no longer effective. Antibiotic-resistant bacteria require stronger, more expensive medications that sometimes must be given in a person's vein (IV).

ASYMPTOMATIC: Without symptoms. For example, a child may have hepatitis A virus in the stool and not have symptoms, but still be able to infect others.

AXILLARY AREA: Armpit.

BACTERIA: Germs that can cause a variety of infections and can also survive in and out of the body. They are much larger than viruses, and they can often be treated effectively with antibiotics.

BODY FLUIDS: Urine, stool (feces), blood, eye and nasal secretions, wound drainage, and saliva.

BRONCHIOLITIS: An infection of the smaller airways of the lungs; most commonly found with a viral infection.

BRONCHITIS, ACUTE (chest cold): Inflammation or swelling of the tubes leading into the lungs. Often caused by a viral infection, therefore, antibiotics are not needed.

CAREGIVER: An adult, such as parent, guardian, foster parent, or head of household who attends to the needs of an infant or child.

CARRIER: A person who has no symptoms of disease but who is infected with a specific germ and can spread the disease to others. For example, some children may be carriers of *Giardia intestinalis* (parasite) and have no symptoms.

CELLULITIS: An infection involving the skin and area below the skin caused by specific bacteria (e.g., *Streptococcus, Staphylococcus,* and *Haemophilus influenzae*).

CHRONIC: An infection or illness that lasts a long time (months or years).

CLEANING: The removal of dirt, debris, waste material (e.g., blood, urine, and stool), and a large number of germs by scrubbing using soap/detergent and water. Vacuuming is also a form of cleaning.

COLONIZATION: When bacteria are present on or in the body without causing illness (e.g., *Staphylococcus aureus* or *Streptococcus pneumoniae*).

COMMUNICABLE DISEASE: Illness caused by germs (e.g., bacteria, viruses, fungi, parasites) that can be spread from person to person or by touching objects contaminated with body fluids. Illness can be spread from infected pets. Many communicable diseases are reportable to the local or state health department.

CONJUNCTIVITIS (PINKEYE): Redness and swelling of the delicate tissue which lines the eyelids and covers the eyeball (conjunctiva).

CONTAGIOUS PERIOD: The period of time when an infected person is capable of spreading infection to another person.

CONTAMINATION: The presence of infectious germs in or on the body, on environmental surfaces, on articles of clothing, or in food or water.

CROUP: Spasms of the airway that cause difficult breathing and a cough sounding like a seal's bark. Viruses most often cause croup; therefore, antibiotics are not needed.

DIARRHEA: Increased number of stools compared with a person's normal pattern, along with decreased stool form and/or watery, bloody, or mucus-containing stools.

DISINFECTION: A physical or chemical process that eliminates virtually all disease-causing germs on environmental surfaces, except bacterial spores.

ENCEPHALITIS: Inflammation (swelling) of the brain which can be caused by a number of agents such as viruses, bacteria, or parasites.

EPIDEMIOLOGY: The scientific study of the occurrence and distribution of diseases in populations.

EXEMPTION: Written documentation of refusal of vaccine administration for religious, medical, or philosophical reasons.

EXCLUSION (DUE TO ILLNESS): Denying admission of an ill child or staff member to a childcare, preschool, school, or worksite.

EXTENSIVELY DRUG-RESISTANT TUBERCULOSIS (XDR TB) - Is a relatively rare type of multidrug-resistant tuberculosis (MDR TB). It is resistant to almost all drugs used to treat TB, including the two best first-line drugs: isoniazid and rifampin. XDR TB is also resistant to the best second-line medications: fluoroquinolones and at least one of three injectable drugs (i.e., amikacin, kanamycin, or capreomycin). Drug-susceptible (regular) TB and XDR TB are spread the same way. TB germs are put into the air when a person with TB disease of the lungs or throat coughs, sneezes, speaks, or sings. These germs can float in the air for several hours, depending on the environment. Persons who breathe in the air containing these TB germs can become infected. Because XDR TB is resistant to the most powerful first-line and second-line drugs, patients are left with treatment options that are much less effective and often have worse treatment outcomes. XDR TB is of special concern for persons with HIV infection or other conditions that can weaken the immune system. These persons are more likely to develop TB disease once they are infected, and also have a higher risk of death once they develop TB disease.

FEBRILE: Having a fever.

FECES: Another name for stool or bowel movements consisting of waste material that is formed and not used by the body.

FEVER: An elevation of body temperature. This could be due to overheating, reactions to medications, or a response to infection. The American Academy of Pediatrics defines fever as a temperature of 100.4 degrees Fahrenheit or 37.8 degrees Celsius. Body temperature along with signs and symptoms of illness should be evaluated jointly to determine if exclusion is necessary.

FUNGI: Plant-like organisms, such as yeasts, molds, mildew, and mushrooms, which get their nutrition from other living organisms or from dead organic matter.

GERMS: A common term used to describe bacteria, viruses, parasites, and fungi.

HEPATITIS: Inflammation of the liver, which may be caused by a virus.

HYGIENE: Protective measures taken by individuals to promote health and limit the spread of infectious diseases, for example, handwashing and covering your cough.

IMMUNE GLOBULIN (IG): An antibody preparation made from human plasma, providing temporary protection against diseases. For example, health officials may offer immune globulin injections to children and staff in a childcare setting when cases of hepatitis A occur.

IMMUNITY: The body's ability to fight a particular infection. For example, a child acquires immunity to diseases such as measles, mumps, rubella, and pertussis after natural infection or by vaccination. Newborns initially have the same immune status as their mothers. This immunity usually disappears within the first 6 months of life.

IMMUNIZATIONS (VACCINATIONS): Vaccines that are given to children and adults to help them develop protection (antibodies) against specific infections. Vaccines may contain an inactivated or killed agent or a weakened live organism.

IMMUNOCOMPROMISED: The state of having a weakened body defense (decreased immune responses) against diseases caused by bacteria, parasites, fungi, or viruses.

INCUBATION PERIOD: The time between exposure to an infectious agent and the beginning of symptoms.

INFECTION: A condition caused by the multiplication of an infectious agent in the body.

INFECTIOUS: Capable of causing an infection.

INFESTATION: Common term referring to the presence of parasites, such as lice or scabies.

INFLUENZA: An acute viral disease of the respiratory tract caused by the influenza virus, also known as “Seasonal Influenza”. Influenza should not be confused with a bacterial infection called *Haemophilus influenzae* or with "stomach flu" (usually vomiting and diarrhea).

JAUNDICE: Yellowing of the whites of the eyes or skin.

LOW-GRADE FEVER: A fever that is slightly higher than normal.

MENINGITIS: A swelling or inflammation of the tissue covering the brain and spinal cord. Meningitis is usually caused by a bacterial or viral infection.

MENINGOCOCCUS: *Neisseria meningitidis* bacteria which can cause meningitis, pneumonia, or blood infections.

MULTIDRUG-RESISTANT TUBERCULOSIS (MDR TB) - Is TB that is resistant to at least two of the best anti-TB drugs, isoniazid and rifampicin. These drugs are considered first-line drugs and are used to treat all persons with TB disease.

ORAL: Having to do with the mouth.

OVER THE COUNTER (OTC): Any medication that can be purchased without a prescription.

OTITIS MEDIA: Inflammation or infection of the middle part of the ear. Ear infections may be caused by *Streptococcus pneumoniae* or *Haemophilus influenzae*. Typically, they are not contagious.

PARASITE: An organism that can only live on or in another living organism.

PAROTID GLAND: A salivary gland situated at the base of each ear.

PEDICULOSIS: Another word for lice infestation.

PANDEMIC: A global disease outbreak especially refers to influenza.

PNEUMONIA: An acute or chronic disease marked by infection of the lung; may be caused by viruses, bacteria, or other germs and sometimes by physical or chemical irritants.

PROPHYLAXIS (PREVENTIVE TREATMENT): Measures taken before, during, or shortly after exposure to an infectious disease to try to prevent the disease. This may include medications or vaccinations.

PUSTULES: Pus-filled bumps on the skin.

RASH: A temporary eruption on the skin.

RECTAL: Having to do with the rectum, the last 6 to 8 inches of the large intestine that serves to store solid waste until it leaves the body through the anus.

RESPIRATORY SYSTEM: The nose, ears, sinuses, throat, and lungs.

SANITIZING: The chemical process of reducing the number of disease-causing germs to a safe level on cleaned food contact surfaces and mouthed toys, objects, and surfaces.

SECRETIONS: Wet material produced by cells or glands that has a specific purpose in the body, such as saliva.

SOILED: Contaminated with dirt; stool; urine; vomit; blood; saliva; or drainage from the eye, nose, or wound.

SORES: Open skin lesions usually caused by an infection.

STANDARD PRECAUTIONS: Are used in many settings where there is a possibility of exposure to blood and body fluids (e.g., urine, stool, secretions from the nose and mouth, drainage from sores or eyes). One aspect of standard precautions is the use of barriers. The purpose of using barriers is to reduce the spread of germs to staff and children from known/unknown sources of infections and prevent a person with open cuts, sores, or cracked skin (non-intact skin) and their eyes, nose, or mouth (mucous membranes) from having contact with another person's blood or body fluids. Examples of barriers are gloves, safety needle/sharp devices and proper disposal of used needles and sharps, and CPR mask or shield.

STOOL: Another name for feces or bowel movements consisting of waste material that is formed and not used by the body.

SUSEPTIBLE: Any individual that has not had natural disease or who has not been vaccinated against a disease. Natural immunity may need to be documented in some instances.

TUBERCULOSIS (TB): Is a disease caused by germs that are spread from person to person through the air. TB usually affects the lungs, but it can also affect other parts of the body, such as the brain, the kidneys, or the spine. In most cases, TB is treatable; however, persons with TB can die if they do not get proper treatment.

TRANSMISSION: The spread of an infectious organism or germ from an infected person or animal or contaminated environmental surface to a person. Swimming in or drinking water from a contaminated water source can also spread organisms.

VACCINATIONS (IMMUNIZATIONS): Vaccines that are given to children and adults to help them develop protection (antibodies) against specific infections. Vaccines may contain an inactivated or killed agent or a weakened live organism.

VARICELLA-ZOSTER: The herpes virus that causes chickenpox (varicella) and shingles (zoster).

VIRUS: A type of germ that lives within cells and is smaller than bacteria. Viruses can grow or reproduce only in living cells. Antibiotics will not fight against viruses - viral infections clear up on their own and antibiotics will not help.

VOMITING: The forcible expulsion of the contents of the stomach through the mouth.

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Website Resources

American Academy of Dermatology	**www.aad.org**
American Academy of Family Practice	**www.aafp.org**
American Academy of Pediatrics	**www.aap.org**
Centers for Disease Control and Prevention (CDC)	**www.cdc.gov**
CDC – National Center for Infectious Diseases	**www.cdc.gov/ncidod/diseases**
Hennepin County Human Services and Public Health Department	**www.hennepin.us/childcaremanual**
Missouri Department of Health and Senior Services	**www.health.mo.gov**
National Foundation of Infectious Diseases	**www.nfid.org**
National Resource Center for Health and Safety in Childcare	**http://nrckids.org**

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