

Communicable Disease: A Guide for Schools in Montana



Developed by: Montana Department of
Public Health and Human Services

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MONTANA
COMMUNICABLE
DISEASE EPIDEMIOLOGY

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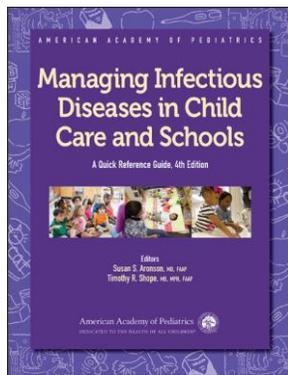
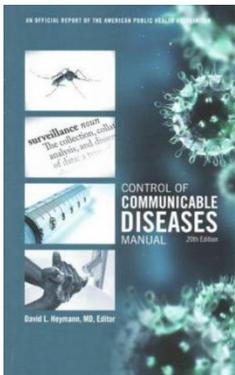
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*The information contained within this guidance document was obtained from the American Academy of Pediatrics (AAP) publication **Managing Infectious Diseases in Child Care and Schools, 4th Edition** and the American Public Health Association (APHA) **Control of Communicable Diseases Manual, 20th Edition**.*

The information was adapted to reflect Montana-specific laws and needs.

Introduction

This summary is a tool for school personnel. It is formatted by:

- Frequently Asked Questions for Communicable Diseases in the School Setting
- Signs and Symptoms Chart for Communicable Diseases
- Disease List A-Z

It contains general information about communicable diseases, recommendations for communicable disease prevention, and recommendations and or requirements for exclusion of ill students. This document contains recommended procedures from science-based literature to provide guidance to school personnel regarding the provision of services to students enrolled in Montana K-12 schools. School district policy, state, and/or federal laws and regulations apply for some diseases. Montana school personnel are encouraged to be familiar with local school district and public health policies and procedures.

Guidance for Communicable Disease Policies in School

Health and School Policy

Policies and procedures regarding student health needs, screening performed in the school setting, and management of chronic illness in children are largely at the discretion of the administration of the school. While most schools have policies and procedures in place regarding communicable disease, resources are available to guide local administrators and school health professionals in policy development or review. The national American Academy of Pediatrics (AAP) and the Pennsylvania chapter of the AAP produced a document entitled *Model Child Care Health Policies*. This document contains guidance on many aspects of children's health in childcare and early education, and includes fill-in-the-blank policies. Included in the policy samples, there is a sample communicable disease reporting policy that may be helpful. It is available online to download at <http://www.ecels-healthychildcarepa.org/publications/manuals-pamphlets-policies/item/248-model-child-care-health-policies.html>.

Vaccination is an important preventative measure for cases of vaccine preventable illness and outbreaks. Students are required to provide proof of vaccination or immunity, or documented medical or religious exemptions by the Montana Code Annotated (MCA) 20-5-403. Vaccination requirements for staff members are at the discretion of the school administration. To find out the most current recommended vaccinations for adults, contact your local health department or primary care provider, or you may visit <https://dphhs.mt.gov/publichealth/immunization> for more information. Additionally, a directory of local health departments may be found at <https://dphhs.mt.gov/publichealth/FCSS/countytribalhealthdepts>.

Confidentiality

Schools may accumulate potentially sensitive medical information on students. Because of this, the local board of trustees shall develop policies and procedures regarding the confidentiality of any student records containing medical information (ARM 10.55.909). All schools must comply with the Family Educational Rights and Privacy Act (FERPA) regarding student records. According to FERPA, schools generally must have written permission from the parent/guardian to release any information from a student's education record. However, FERPA allows schools to disclose those records, without consent, to appropriate officials (such as local and state health

departments) in cases of health and safety emergencies. School officials may not release information contained in student health records to other school staff unless the student is transferring to that school.

Reporting

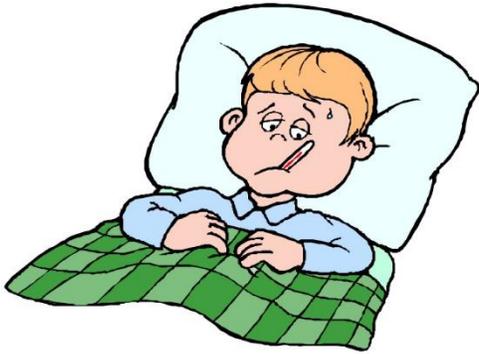
Any person, including a public or private school staff members, who knows or has reason to believe that a case exists of a reportable disease or condition defined in ARM 37.114.203 must immediately report to the local health officer or their designee. *This is not a violation of privacy laws, and is a required activity by administrative rule.* The following information should be included:

- (a) Student demographic information (name, date of birth, and physical address)
- (b) Dates of onset of the disease, if known by school personnel
- (c) If there are any similarly ill students known to school personnel



The local health department will conduct a case and/or outbreak investigation, and will work with the facility to institute control measures to prevent further spread of the disease within the school.

Exclusion Criteria for Children Who Are Ill



According to the American Academy of Pediatrics, when a child becomes ill but does not require immediate medical help, a determination must be made about whether the child should be sent home. *Most illnesses do not require exclusion.* The designated staff member should determine whether the child's illness meets the following criteria for exclusion:

- Prevents the child from participating comfortably in activities as determined by staff members of the early education/child care program or school.
- Results in a need for care that is greater than staff members can provide without compromising the health and safety of other children.
- Poses a risk of spreading harmful disease to others, or is on the list of specific conditions requiring exclusion.

If any of these criteria are met, the child should be excluded, regardless of the type of illness, unless a health professional determines the child's condition does not require exclusion.

Exclusion Requirements for Staff Who Are Ill

Staff members who are diagnosed with certain illnesses may be required to be excluded from the school until they are no longer infectious. Illnesses such as the common cold and other minor respiratory infections are not generally of concern, and exclusion is not necessary. However, staff members diagnosed with diseases such as pertussis (whooping cough) would be required to be excluded by the local health officer. Additionally, food handlers within the school who have diarrhea of any kind cannot engage in food

preparation. Contact your local health department for guidance on when exclusion for staff is necessary, and for the duration of exclusion for certain diseases.

Animals in Schools

Animals in schools can have a positive effect in the school environment, but also may cause infectious disease issues for staff and students. Schools should have a policy stating which animals are allowed on the premises and what measures will be taken to prevent disease transmission. Consider the following for your policy:



- Wild mammals, alive or recently dead, should not be allowed in school. Bats and skunks have a significant risk of being rabid, and other wild animals may be more prone to causing injury through bites and scratches.
- Dogs, cats, and ferrets allowed in school should have a current rabies vaccine.
- Report accidental bites to the local health department for follow up.
- Animals who are ill should not be allowed into the school. Remove class pets should they become ill.
- Promote handwashing after handling of animals to prevent diseases such as salmonellosis and campylobacteriosis.
- Do not handle animals in areas where food and drink are consumed or prepared.
- Children should not kiss high risk animals such as chicks, ducks, turtles, and other reptiles.
- Monitor interactions with animals to prevent injuries.
- Consider the medical needs of students who may be immunosuppressed or who may have allergies as they may become severely ill when exposed to certain pathogens.

Resources

DPHHS Website: <https://dphhs.mt.gov/>

Communicable Disease Epidemiology: <https://dphhs.mt.gov/publichealth/cdepi>

Montana School Health Program: <https://dphhs.mt.gov/schoolhealth>

Local Public Health Contact Information: <https://dphhs.mt.gov/publichealth/FCSS/countytribalhealthdepts>

Communicable Disease Control and Prevention Bureau Infographics: <https://dphhs.mt.gov/publichealth/cdepi/infographics>

Communicable Disease Epidemiology Reports: <https://dphhs.mt.gov/publichealth/cdepi/surveillance>

Family Educational Rights and Privacy Act (FERPA): <https://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html>

Healthy Schools (CDC): <https://www.cdc.gov/healthyschools/index.htm>

Handwashing (CDC): <https://www.cdc.gov/handwashing/index.html>



WHAT IS A CONTACT?

Per the Administrative Rules of Montana, local public health will conduct a **communicable disease** investigation of a reportable condition. One of the first steps is to determine who is at risk of contracting the disease from the patient, called a **contact investigation**. The type and duration of contact depends on the disease in question. Once at-risk individuals are identified, appropriate **control measures** such as **post-exposure prophylaxis** can be applied to prevent the continued transmission of disease. For most communicable diseases, contact investigations will include individuals from the categories below:



HOUSEHOLD CONTACTS

- Family members living in the same house*
- Roommates
- House guests

*You may want to consider grandparents or other relatives who spend time in the household



SOCIAL CONTACTS

- Friends
- Boy/girlfriends
- Teammates
- After school clubs
- Religious groups



SCHOOL/WORK CONTACTS

- Classroom seatmates
- Cube mates
- Cafeteria
- Group classes
- School bus/carpool



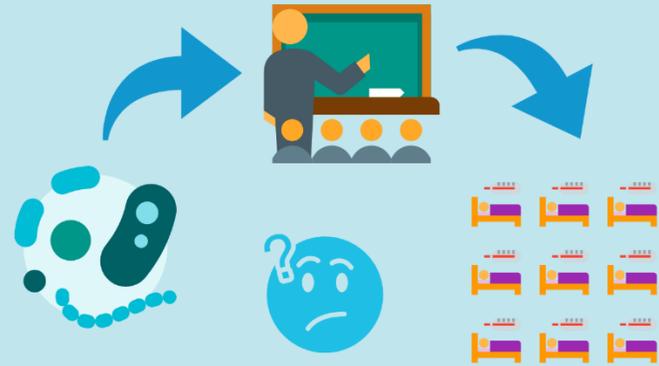
CONTACTS IN SPECIAL SITUATIONS

- Child care
- Healthcare
- Food preparation



What is an outbreak?

DPHHS defines an outbreak as more cases of a particular disease or condition than expected over a given period of time OR a single unusual illness, or two or more cases of a specific illness (e.g., foodborne illness) with a suspected common exposure history. Defining an outbreak as multiple cases at the same time will not always be accurate. Here are some things to consider:



Pathogen-How does a person become infected? How severe is it?



Is it spread person-to-person through contact or coughing?



Do infections occur after an insect bite or contact with an animal?



Can it be found in contaminated food and water?



Can it be spread through contact with infected body fluids or on soiled surfaces?

Are there times in the year that you would normally expect more cases? Would you expect to see any cases at all (like mumps, measles, etc.)?

OR

Are you seeing cases OUTSIDE of their normal seasons (i.e., flu in the summer)?



- Norovirus
- Influenza
- RSV

Winter



Spring

- Cryptosporidiosis
- Campylobacter
- Salmonella
- Norovirus



Summer

- Giardiasis
- Campylobacter
- Salmonella



Fall

- Enterovirus
- Common cold
- Influenza
- RSV



Can you link similar cases over the same place and time?

Have you observed spread of the illness within your facility within an incubation period (time it takes for a disease to develop after infection)?

With diarrheal illnesses, did multiple people become ill at the same time?



School children are vulnerable to many diseases because of their young immune systems. Report unusual disease activity to your local health jurisdiction so they can investigate and determine if an outbreak exists.



Don't we test teachers and staff for tuberculosis (TB) yearly?

NO

ARM 37.114.1010 requiring annual TB testing of school employees was repealed in March of 2017.



Low-Risk

- ✓ Montana is a low-incidence state for active tuberculosis.
- ✓ Over the last decade, an average about 3-6 cases were reported annually.
- ✓ CDC guidelines discourage TB testing of low-risk persons and groups.



False Positives

- ✓ When the prevalence of TB is low, annual testing results in a high number of false positive tests.
- ✓ False positives cause unnecessary expenses and treatment with serious TB medication.



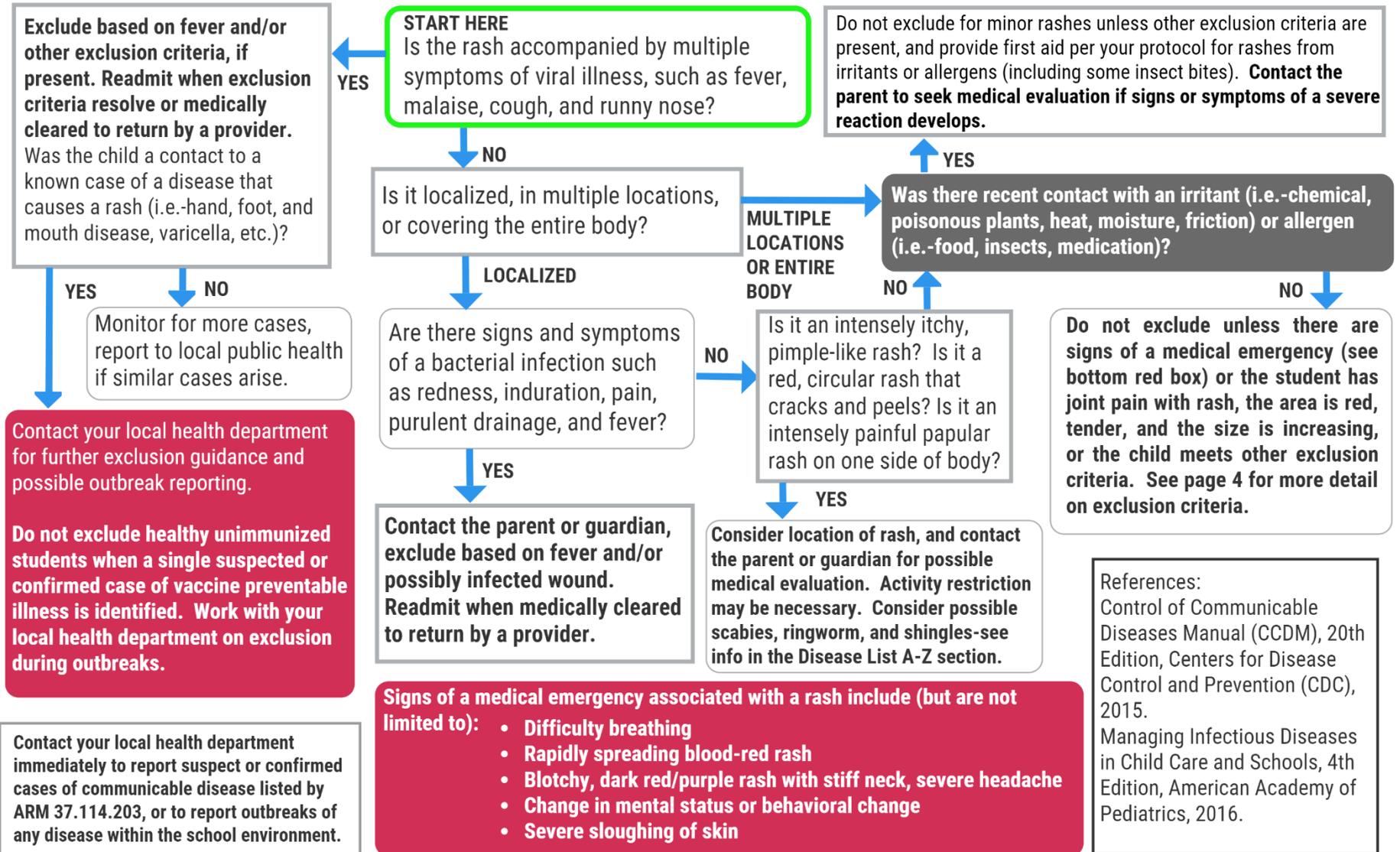
Relevant Testing

- ✓ CDC and the Montana Department of Health and Human Services (DPHHS) recommend providers and local public health jurisdictions only test those who are at risk or need to be tested for medical purposes.

Making a Rash Decision-When to Exclude



Always notify a parent when rashes are identified. The decision to exclude a child who has a rash where the cause is unknown is based on multiple variables. *Assessment by a healthcare provider is generally recommended to determine the cause of a rash, especially if the rash persists.* Therefore, this flow chart is a *guideline only*. If the cause of the rash is known and it is infectious in nature, see the Disease List A-Z section for specific exclusion requirements.



Signs and Symptoms Chart

This table is based on a resource in the American Academy of Pediatrics' *Managing Infectious Diseases in Child Care and Schools*. It can be used to look up signs and symptoms that may be experienced by students, to determine whether the illnesses should be reported to your local health department, and if students need to be excluded from school based on symptoms. You are encouraged to follow your school policy, and to discuss illnesses with your local health department, if necessary. **If someone is experiencing a medical emergency, call 911 and refer to your facility's medical emergency policy.**

Symptom and Common Causes	Complaints or What Might be Seen	Notify Health Department?	Temporarily Exclude?	When to Readmit?
Cold Symptoms Viruses <ul style="list-style-type: none"> Adenovirus Coronavirus Enterovirus Influenza and parainfluenza virus Respiratory syncytial virus (RSV) Rhinovirus Bacterial <ul style="list-style-type: none"> Mycoplasma Pertussis (whooping cough) 	<ul style="list-style-type: none"> Coughing Runny or stuffy nose Scratchy throat Sneezing Fever Watery eyes 	No, unless the cough is due to a vaccine-preventable disease, such as pertussis.	No, unless: <ul style="list-style-type: none"> Fever accompanied by behavior change Child has difficulty breathing Child has blood-red or purple rash not associated with injury Child meets routine exclusion criteria (see page 4 of introduction) Child has a reportable condition requiring exclusion (pertussis) 	Exclusion criteria are resolved
Cough <ul style="list-style-type: none"> Common cold Lower respiratory infection (i.e., pneumonia, bronchiolitis) Croup Asthma Sinus infection Bronchitis Pertussis (whooping cough) Noninfectious causes like allergies 	<ul style="list-style-type: none"> Dry or wet cough Runny nose (clear, white, or yellow-green) Sore throat Throat irritation Hoarse voice, barking cough Coughing fits 	No, unless the cough is due to a vaccine-preventable disease, such as pertussis.	No, unless: <ul style="list-style-type: none"> Severe cough Rapid or difficult breathing Wheezing if not already evaluated and treated Blue color of skin or mucous membranes (cyanosis) Child has a reportable condition requiring exclusion (pertussis) Fever with behavior change Child meets routine exclusion criteria (see page 4 of introduction) 	Exclusion criteria are resolved

Symptom and Common Causes	Complaints or What Might be Seen	Notify Health Department?	Temporarily Exclude?	When to Readmit?
Diarrhea <ul style="list-style-type: none"> Usually viral Bacterial or parasitic Dietary Inflammatory bowel disease 	<ul style="list-style-type: none"> Stomach cramps Frequent loose or watery stools Fever 	No, unless an outbreak occurs (more complaints than normally expected) or if it is a case of bloody diarrhea.	Consider exclusion if: <ul style="list-style-type: none"> There is a current outbreak situation in the school after consultation with the local health department Hand washing and personal hygiene practices of the ill student should be taken into account when considering exclusion 	Exclusion criteria are resolved.
Earache <ul style="list-style-type: none"> Bacteria Often occurs in context of common cold virus 	<ul style="list-style-type: none"> Fever Pain or irritability Difficulty hearing (Blocked ears) Drainage from ear Swelling around ear 	Not necessary	No, unless: <ul style="list-style-type: none"> Child meets routine exclusion criteria (see page 4 of introduction) 	Exclusion criteria are resolved.
Eye Irritation <ul style="list-style-type: none"> Sty underneath eyelid Bacterial or viral conjunctivitis (see Pinkeye in Disease List A-Z) Allergic conjunctivitis: irritation of the membrane covering eye(s) Irritant conjunctivitis: Chemical irritation of eye(s) or eyelid(s) (i.e., swimming in heavily chlorinated water, air pollution, smoke exposure) Injury 	<ul style="list-style-type: none"> Bacterial infection Viral infection Allergic and chemical irritation: red, tearing, itchy, puffy eyelids; runny nose, sneezing; watery/ stringy discharge with or without some crusting around the eyelids. 	Yes, if 2 or more children have red eyes with watery discharge that appears infectious in nature.	No, unless <ul style="list-style-type: none"> Child meets other exclusion criteria (see Conditions Requiring Temporary Exclusion in Chapter 4) 	See Pinkeye section in disease list A-Z (page 16) for more details on exclusion. Readmit for other causes when exclusion criteria are resolved.

Symptom and Common Causes	Complaints or What Might be Seen	Notify Health Department?	Temporarily Exclude?	When to Readmit?
<p>Fever</p> <ul style="list-style-type: none"> Any viral, bacterial, or parasitic infection Vigorous exercise Reaction to medication or vaccine Other noninfectious illnesses (i.e., rheumatoid arthritis, malignancy) 	<ul style="list-style-type: none"> Flushing, tired, irritable, decreased activity <p>Notes</p> <ul style="list-style-type: none"> Fever alone is not harmful. When a child has an infection, raising the body temperature is part of the body's normal defense against germs. Rapid elevation of body temperature sometimes triggers a febrile seizure in young children; this usually is outgrown by age 6. The first time a febrile seizure happens, the child requires medical evaluation. 	<p>Not necessary unless a reportable condition is suspected.</p>	<p>No, unless: Behavior change or other signs of illness in addition to fever or child meets other routine exclusion criteria (see page 4 of introduction)</p>	<p>Exclusion criteria are resolved</p>
<p>Headache</p> <ul style="list-style-type: none"> Any bacterial/viral infection Other noninfectious causes 	<ul style="list-style-type: none"> Tired and irritable Can occur with or without other symptoms 	<p>Not necessary unless a reportable condition is suspected.</p>	<p>No, unless:</p> <ul style="list-style-type: none"> Child meets routine exclusion criteria (see page 4 of introduction) <p>Note: Notify healthcare provider in case of sudden, severe headache with vomiting or stiff neck that might signal meningitis. It would be concerning if the back of the neck is painful or the child can't look at his or her belly button (putting chin to chest), different from soreness in the side of the neck.</p>	<p>Exclusion criteria are resolved</p>

Symptom and Common Causes	Complaints or What Might be Seen	Notify Health Department?	Temporarily Exclude?	When to Readmit?
Itching <ul style="list-style-type: none"> • Ringworm • Chickenpox • Pinworm • Head lice • Insect bites • Scabies • Allergic or irritant reaction (i.e., poison ivy) • Dry skin or eczema • Impetigo 	<p>For the specific infectious conditions listed under common causes, please see the Disease List A-Z for more information.</p> <ul style="list-style-type: none"> • Allergic or irritant reaction: raised, circular, mobile rash; reddening of the skin; blisters occur with local reactions (poison ivy, contact reaction). • Dry skin or eczema: dry areas on body. More often worse on cheeks, in front of elbows, and behind knees. 	<p>Yes, for outbreaks of lice and scabies, and for cases and outbreaks of chickenpox.</p>	<p>For the specific infectious conditions listed under common causes, please see the Disease List A-Z for more information on when and how long to exclude.</p> <p>For any other itching No, unless:</p> <ul style="list-style-type: none"> • Child meets routine exclusion criteria (see page 4 of introduction) 	<p>Exclusion criteria are resolved.</p> <p>On medication or treated as recommended by a healthcare provider if treatment is indicated for the condition.</p>
Mouth Sores <ul style="list-style-type: none"> • Oral thrush (yeast infection) • Herpes or coxsackievirus infection • Canker sores 	<ul style="list-style-type: none"> • Oral thrush: white patches on tongue, gums, and along inner cheeks • Herpes or coxsackievirus infection: pain on swallowing; fever; painful, white/red spots in mouth; swollen neck glands; fever blister, cold sore; reddened, swollen, painful lips • Canker sores: painful ulcers inside cheeks/gums 	<p>Not necessary unless a reportable condition is suspected.</p>	<p>No, unless:</p> <ul style="list-style-type: none"> • Drooling steadily related to mouth sores • Fever with behavior change • Child meets routine exclusion criteria (see page 4 of introduction) 	<p>Exclusion criteria are resolved</p>

Symptom and Common Causes	Complaints or What Might be Seen	Notify Health Department?	Temporarily Exclude?	When to Readmit?
<p>Rash</p> <ul style="list-style-type: none"> • Many causes • Viral: roseola infantum, fifth disease, chickenpox, herpesvirus, molluscum contagiosum, rubella, hand foot, and mouth disease, measles, warts, cold sores, shingles (herpes zoster), and others • Skin infections and infestations. ringworm (fungus), scabies (parasite), impetigo, abscesses and cellulitis (bacteria) • Scarlet fever (strep infection) • Severe bacterial infections: meningococcus, pneumococcus, Staphylococcus (methicillin-susceptible <i>S. aureus</i>; methicillin-resistant <i>S. aureus</i>), Streptococcus • Non-infectious causes: allergy (hives), eczema, contact (irritant) dermatitis, medication related, poison ivy 	<p>Skin may show similar findings with many different causes. Determining the cause of rash requires a competent healthcare provider evaluation. However, most rashes are minor in nature and may not require evaluation.</p> <ul style="list-style-type: none"> • Viral: usually signs of general illness such as runny nose, cough, fever (except not for warts or molluscum). Some viral rashes have a distinctive appearance. • Minor skin infections and infestations: see Itching. • Severe bacterial infections: rare. These children usually have fever with a rapidly spreading blood-red rash and may be very ill. • Allergy: may be associated with a raised, itchy, pink rash with bumps that can be as small as a pinpoint or large welt known as hives. • See also Itching for what might be seen for allergy or contact dermatitis or eczema. 	<p>For outbreaks, such as multiple children with hand, foot, and mouth disease within a group.</p> <p>Also notify with children are diagnosed by a healthcare provider with a vaccine-preventable conditions that are reportable, such as chickenpox, or if you suspect another reportable condition.</p>	<p>No, unless:</p> <ul style="list-style-type: none"> • Rash with behavior change or fever. • Has oozing/open wound. • Has joint pain and rash • Rapidly spreading blood-red rash • Child meets routine exclusion criteria (see page 4 of introduction and the “Making a Rash Decision-When to Exclude” infographic on page 9) 	<p>Readmit when routine exclusion criteria resolve; see also the “Making a Rash Decision-When to Exclude” infographic on page 9)</p>

Symptom and Common Causes	Complaints or What Might be Seen	Notify Health Department?	Temporarily Exclude?	When to Readmit?
Sore Throat (pharyngitis) <ul style="list-style-type: none"> Viral – common cold viruses that cause upper respiratory infections Strep throat (Group A Streptococcus) 	<ul style="list-style-type: none"> Viral: Child complains of sore throat Strep throat: Red tissue with white patches on sides of throat, at back of tongue (tonsil area), and at back wall of throat. Strep throat usually not accompanied by cough or runny nose in children over 3 years. Tonsils may be large, even touching each other Swollen lymph nodes 	Not necessary	No, unless: <ul style="list-style-type: none"> Inability to swallow. Excessive drooling with breathing difficulty. Fever with behavior change. Child meets routine exclusion criteria (see page 4 of introduction) Note: Most children with red back of throat or tonsils, pus on tonsils, or swollen lymph nodes have viral infections. If strep is present, 12 hours of antibiotics is required to readmit.	Exclusion criteria are resolved.
Stomachache <ul style="list-style-type: none"> Viral gastroenteritis Behavioral or dietary causes Strep throat Problems with internal organs, such as gallbladder disease or appendicitis Non-specific behavioral and/or dietary causes 	<ul style="list-style-type: none"> Viral gastroenteritis: vomiting and/or diarrhea Strep throat: sore throat, headache, possible fever Internal organs: <i>persistent, severe pain in abdomen</i> Nonspecific causes: vague complaints without vomiting/diarrhea or much change in activity 	If outbreak scenario (more cases than expected)	No, unless: <ul style="list-style-type: none"> Severe pain Bloody stools Looks or acts very ill Yellow skin/eyes No urine output for 8 hours Diarrhea Fever with behavior change 	Pain resolves, and other exclusion criteria are resolved
Vomiting <ul style="list-style-type: none"> Viral infection of the stomach or intestine (gastroenteritis) Coughing strongly Other viral illness with fever Noninfectious causes: food allergy, trauma, dietary and medication related, headache, exertion, and math tests 	<ul style="list-style-type: none"> Diarrhea, vomiting, or cramping for viral gastroenteritis 	If outbreak scenario (more cases than expected)	Yes, if: <ul style="list-style-type: none"> Vomited more than 2 times in 24 hours Vomiting and fever Recent history of head injury Child meets routine exclusion (see page 4 of introduction) 	Exclusion criteria are resolved

Disease List A-Z

This table can be used to look up common diseases and conditions that may be experienced by students, and to determine whether the illnesses should be reported to your local health department and if students need to be excluded from school. This is just a guide, you are encouraged to discuss illnesses with your local health department. Keep in mind that your school may have a policy that addresses many of the diseases listed below. ***If someone is experiencing a medical emergency, call 911 and refer to your facility's medical emergency policy.***

Disease (A-Z by Common Name)	Signs / Symptoms	Incubation Period	How it is Spread	Contagious Period	Recommendations
Bed bugs	<ul style="list-style-type: none"> • Bite marks on the face, neck, arms, hands, or any other body parts • Bites are often in a row and have a small, red bump in the middle 	Bite marks may take as long as 14 days to develop- bedbugs do not reproduce on humans.	<ul style="list-style-type: none"> • Contact with infested material. • Not spread person-to-person • May be brought to school via book bags or clothing 	Contaminated articles can be cleaned in hot water (30-60 minutes), and smaller articles may be frozen to kill live bugs.	Do not exclude the child, and provide education for pest removal and how to avoid spreading the infestation. Clipping nails short may help prevent secondary infection in sites where scratching occurs. Treat itching with over the counter itch remedies.
Campylobacteriosis Single cases and outbreaks are reportable	<ul style="list-style-type: none"> • Diarrhea, may be bloody • Fever • Vomiting • Abdominal cramping • Malaise • Relapse of symptoms may occur 	Usually 2-5 days, but can be longer	<ul style="list-style-type: none"> • Contact with infected animals or their stool (poultry and sick pets) • Contaminated food and water • Unpasteurized milk • Person-to-person via fecal-oral route 	Bacteria found in stool for 2-3 weeks. Antibiotic treatment may shorten contagious period.	Consult with your local health department to consider exclusion when diarrhea stools are present. Hand washing and personal hygiene practices should be taken into account when considering exclusion.

Disease (A-Z by Common Name)	Signs / Symptoms	Incubation Period	How it is Spread	Contagious Period	Recommendations
<p>Chickenpox (Varicella) Single cases and outbreaks are reportable</p> <p>Vaccine preventable</p>	<ul style="list-style-type: none"> • Rash, usually vesicular (fluid-filled sacs), may have flat lesions and raised solid lesions present • Fever • Itching • Runny nose and cough 	<p>Usually 14-16 days, but ranges from 10-21 days after exposure.</p>	<ul style="list-style-type: none"> • Person-to-person • Contact with infected fluids from rash or inhalation of droplets from coughing or sneezing of the infected person 	<p>Highly contagious, may be transmissible 1-2 days before the rash appears and will continue to be infectious until the lesions crust over.</p>	<p>Exclude infected children until the rash crusts over and no new lesions appear for the last 24 hours. Work with the local health department on control of outbreaks and management of susceptible contacts.</p>
<p>Crypto-sporidiosis Single cases and outbreaks are reportable</p>	<ul style="list-style-type: none"> • Acute, watery diarrhea • Fever • Vomiting • Cramping and malaise • Lack of appetite • Some individuals may be asymptomatic 	<p>Usually 7 days, range is 3-14 days after exposure.</p>	<ul style="list-style-type: none"> • Contact with infected stool from animals • Contaminated food and water • Swimming in contaminated water • Person-to-person via fecal-oral route 	<p>For approximately 2 weeks after onset of symptoms.</p>	<p>Consult with your local health department to consider exclusion when diarrhea stools are present. Hand washing and personal hygiene practices should be taken into account when considering exclusion.</p>
<p>Escherichia coli, Shiga toxin-producing (E. coli) Single cases and outbreaks are reportable</p>	<ul style="list-style-type: none"> • Diarrhea, may or may not be bloody • Abdominal pain • May have fever 	<p>Usually 3-4 days, range is 10 hours to 8 days.</p>	<ul style="list-style-type: none"> • Contact with infected stool from animals • Contaminated or undercooked food and water • Swimming in contaminated water • Person-to-person via fecal-oral route 	<p>From onset of diarrhea until two negative stool cultures are obtained.</p>	<p>Work with health department on exclusion. Consider exclusion when diarrhea stools are present. Hand washing and personal hygiene practices should be taken into account when considering exclusion.</p>

Disease (A-Z by Common Name)	Signs / Symptoms	Incubation Period	How it is Spread	Contagious Period	Recommendations
Ear Infection	<ul style="list-style-type: none"> • Pain inside ear or when touching the external ear • Irritability • May have fever • Ear drainage 	Variable	<ul style="list-style-type: none"> • Complication of upper respiratory infections, not transmissible from person-to-person 	NA	Do not exclude unless exclusion criteria, such as fever, are present. Readmit when exclusion criteria resolve.
Fifth Disease (Erythema Infectiosum) Outbreaks are reportable	<ul style="list-style-type: none"> • Rash with “slapped cheek” appearance • Fever • Headache • Fatigue • Malaise • Some infections are asymptomatic 	Usually 4-20 days, variable in nature.	<ul style="list-style-type: none"> • Person-to-person; contact with inhalation of droplets from coughing or sneezing of the infected person 	One to two days before rash onset until the rash has faded.	Exclude until rash is no longer present.
German Measles (Rubella) Single cases and outbreaks are reportable Vaccine Preventable	<ul style="list-style-type: none"> • May be asymptomatic. • Red or pink rash appearing first on the face, then spreading down the body • Swollen glands behind ears • Slight fever • May have joint aches or pain 	Usually 14-17 days; range 14-21 days.	<ul style="list-style-type: none"> • Person-to-person: • Direct contact with nose and throat secretions • Droplet transmission through coughing and sneezing 	For about 1 week before and at least 4 days after onset of rash. Highly contagious.	When case is confirmed, exclude for 7 days after onset of rash. Work with the local health department on control of outbreaks and management of susceptible contacts.

Disease (A-Z by Common Name)	Signs / Symptoms	Incubation Period	How it is Spread	Contagious Period	Recommendations
<p>Giardiasis Single cases and outbreaks are reportable</p>	<ul style="list-style-type: none"> • Watery diarrhea • Excessive gas • Abdominal pain • Decreased appetite and weight loss 	<p>Usually 3-25 days or longer, most commonly 7-10 days</p>	<ul style="list-style-type: none"> • Ingestion of parasitic cysts through contaminated food, water • Swimming in bodies of water with parasite present 	<p>Most contagious when diarrhea is present, contagious period variable.</p>	<p>Consult with your local health department to consider exclusion when diarrhea stools are present, until all exclusion criteria resolve (see page 4). Hand washing and personal hygiene practices should be taken into account when considering exclusion. Treatment may help resolve symptoms.</p>
<p>Haemophilus influenzae Type B (Hib) Single cases and outbreaks are reportable Vaccine preventable</p>	<ul style="list-style-type: none"> • Fever • Vomiting • Irritability • Stiff neck • Difficulty breathing • Cough • Warm, red, swollen joints • Swelling and discoloration of the face 	<p>Unknown, probably 2-4 days</p>	<ul style="list-style-type: none"> • Person-to-person: • Direct contact with nose and throat secretions • Droplet transmission through coughing and sneezing. • Contact with respiratory secretions on contaminated objects such as toys and other surfaces. 	<p>Contagious until antibiotic therapy has begun.</p>	<p><i>Hib cases are urgent in nature.</i> Notify the local health department immediately when identified. Individuals who are close contacts need to be assessed for the need of post-exposure prophylaxis.</p>
<p>Hand, Foot, and Mouth Disease (Coxsackie-virus) Outbreaks are reportable</p>	<ul style="list-style-type: none"> • Tiny blisters in the mouth and on the fingers, palms of hands, buttocks, and soles of feet • Fever • Sore throat • Runny nose/cough • Vomiting and diarrhea may occur • Asymptomatic infections may occur 	<p>Usually 3-5 days</p>	<ul style="list-style-type: none"> • Person-to-person: • Direct contact with nose and throat secretions • Droplet transmission through coughing and sneezing. • Fecal-oral route: • Spread through contact with feces of infected children, also toys and surfaces that are contaminated infected body fluids. 	<p>Most contagious during the first week of illness. Virus found in the respiratory secretions for two weeks after onset, and up to 11 weeks in feces after onset. <i>Rash is non-infectious.</i></p>	<p>Exclude per policy for fever and diarrhea and if other exclusion criteria are present. See page 4 for exclusion criteria. Promote handwashing and cough etiquette when cases are identified.</p>

Disease (A-Z by Common Name)	Signs / Symptoms	Incubation Period	How it is Spread	Contagious Period	Recommendations
Impetigo	<ul style="list-style-type: none"> • Small, red, pimple-like blisters (usually on the face) • Crusting of clear, slightly yellow fluid • Often follows minor skin trauma 	Variable, skin carries bacteria that causes the lesions without symptoms	<ul style="list-style-type: none"> • Contact with sores of infected person or from contaminated surfaces. 	Contagious when sores are present until 24 hours after the start of antimicrobial therapy.	Refer to a healthcare provider at the end of the school day, and if confirmed, exclude until treatment is started. If treatment is started before the next day, there is no need to exclude. Lesions should be covered until dry.
Influenza Cases and outbreaks are reportable Vaccine preventable	<ul style="list-style-type: none"> • Fever/chills • Headache/malaise • Sore throat/congestion • Cough • Mild pinkeye • Nausea and vomiting, occasionally, usually observed in children when it does occur 	Usually 2 days, ranges 1-4 days	<ul style="list-style-type: none"> • Person-to-person; contact with inhalation of droplets from coughing or sneezing of the infected person 	Contagious one day prior to onset until one week after onset of symptoms.	Exclude until 24 hours after the fever resolves without assistance from medication and all other exclusion criteria are resolved, see page 4. Note: Influenza is not the same illness as the "stomach flu" (gastroenteritis)
Lice Outbreaks reportable	<ul style="list-style-type: none"> • Tickling feeling or something moving in the hair • Itching, caused by the bites of the head louse • Irritability and difficulty sleeping • Sores on the head caused by scratching 	7-12 days from laying to hatching of eggs, lice reproduce about 14 days after hatching. It may take 4-6 weeks for itching to appear.	<ul style="list-style-type: none"> • Person-to-person: • Head-to-head (hair-to-hair) contact when live lice are present (they do not hop or fly) • Less frequently spread by sharing clothing or belongings 	Head lice survive less than 1-2 days if they fall off a person and cannot feed. Nits cannot hatch and usually die within a week if at a different temperature than that found close to the scalp.	Treat with pediculicides (medication that kills lice and nits); may require two treatments. Treatment failure may occur, use a different product to retreat. Herbal and natural remedies are not regulated by the FDA, and may not be safe or effective. Mechanical removal of nits may have some benefit, household contacts should be examined and treated. Contacts who share the same bed may be treated if no live lice are found.

Disease (A-Z by Common Name)	Signs / Symptoms	Incubation Period	How it is Spread	Contagious Period	Recommendations
<p>Measles Single cases and outbreaks are reportable</p> <p>Vaccine preventable</p>	<ul style="list-style-type: none"> • Fever • Conjunctivitis • Bluish-white spots inside mouth (cheek) • Rash that starts at the hairline and spreads down over body 	<p>Average of 14 days, ranges 7-21 days</p>	<ul style="list-style-type: none"> • Airborne by droplet spread, direct contact with infected respiratory secretions. Highly infectious in nature. 	<p>Contagious 4 days before the onset of the rash until 4 days after the onset of the rash.</p>	<p>Montana has not had a measles case since 1990, and it is easily confused with other diseases that cause a rash and fever. Report suspected cases immediately to the local health department for investigation.</p>
<p>Meningitis Single cases reportable when caused by <i>Neisseria meningitidis</i>; see also Hib.</p>	<ul style="list-style-type: none"> • Fever • Headache • Nausea • Rash • Stiff neck • Irritability • Eye sensitivity • Confusion • Seizures/coma 	<p>Viral and bacterial meningitis: Usually 1-10 days. Varies depending on pathogen.</p>	<ul style="list-style-type: none"> • Person-to-person: • Direct contact with nose and throat secretions • Droplet transmission through coughing and sneezing. • Fecal-oral route: • Spread through contact with feces of infected children, also toys and surfaces that are contaminated with feces of infected children. 	<p>Variable depending on pathogen.</p>	<p>Exclude as soon as meningitis is suspected. Readmit when no longer infectious and other exclusion criteria are resolved.</p>
<p>Molluscum Contagiosum Outbreaks reportable</p>	<ul style="list-style-type: none"> • Small, pink, translucent bumps on the skin • Center of bumps often have a tiny, hard indented center • Rash can be itchy 	<p>Experimentally shown to be between 19-50 days, can be 7 days to 6 months</p>	<ul style="list-style-type: none"> • Person-to-person: • Close contact with infected individuals or sharing of contaminated objects. 	<p>Unknown, likely while lesions persist</p>	<p>Do not exclude. Itching may be relieved through cold compresses. Disinfect surfaces that have come into contact with lesions, or handled by children who have lesions.</p>

Disease (A-Z by Common Name)	Signs / Symptoms	Incubation Period	How it is Spread	Contagious Period	Recommendations
Mononucleosis Outbreaks reportable	Young children usually experience mild illness. Older children: <ul style="list-style-type: none"> • Fever • Fatigue • Sore throat • Swollen lymph glands • Enlarged liver and spleen 	Usually 4-6 weeks	<ul style="list-style-type: none"> • Person-to-person: • Close contact with saliva of infected individuals through kissing, sharing utensils and drinking vessels, and other surfaces contaminated by saliva. 	Contagious for many months, and can intermittently excrete virus throughout life.	Exclude for fever per school policy and until exclusion criteria are resolved (see page 4). Children should avoid contact sports if they have an enlarged spleen until the size returns to normal.
Mumps Single cases and outbreaks are reportable Vaccine preventable	<ul style="list-style-type: none"> • Fever • Headache/earache • Swollen glands in front of and below the ear (may not be present in all cases) • Painful swelling of testes or ovaries 	Usually 16-18 days, ranges from 12-25 days	<ul style="list-style-type: none"> • Person-to-person: • Direct contact with nose and throat secretions on contaminated objects such as toys and other surfaces. • Droplet transmission through coughing and sneezing. 	Contagious 7 days prior to the onset of the gland swelling and up to 9 days afterward. Most infectious until 5 days after onset of swelling.	Exclude case until 5 days after onset of gland swelling, work with local health department on management of contacts.
Norovirus Outbreaks reportable	<ul style="list-style-type: none"> • Fever • Watery diarrhea • Nausea/vomiting • Malaise • Headache • Disease may be very mild 	Usually 10-50 hours	<ul style="list-style-type: none"> • Fecal-oral route: • Spread through contact with feces of infected children, also toys and surfaces that are contaminated with feces of infected children. 	Variable, may persist for 3 weeks after symptoms resolve.	Consult with your local health department. Consider exclusion until 24-72 hours after symptoms and other exclusion criteria are resolved. Outbreaks are common as it is highly infectious. Expect increased activity in the winter and spring.

Disease (A-Z by Common Name)	Signs / Symptoms	Incubation Period	How it is Spread	Contagious Period	Recommendations
Pinkeye (Conjunctivitis) Outbreaks reportable	<i>Infectious causes only listed here.</i> Bacterial <ul style="list-style-type: none"> • Red or pink, itchy, painful eye • Green and yellow discharge • Eyes crusting shut after sleep Viral <ul style="list-style-type: none"> • Pink, swollen, watery eyes sensitive to light • May affect only one eye 	Bacterial: Unknown Viral: Usually accompanies an upper respiratory infection.	<ul style="list-style-type: none"> • Person-to-person: • Spread through direct contact with discharges from eyes or by touching surfaces contaminated with infected eye secretion. 	Contagious while signs or symptoms are present, in general. Caused by multiple organisms, so it may vary.	For most cases bacterial and viral conjunctivitis, exclusion is no longer required for this condition. The role of antibiotics in treatment and preventing spread is unclear. Most children with pinkeye get better after 5 or 6 days without antibiotics. Exclude if other exclusion criteria are met (see page 4). Healthcare providers may exclude students for specific forms of conjunctivitis. Return to class when allowed by a provider.
Pinworms	<ul style="list-style-type: none"> • Most have no signs or symptoms • Itching and irritation around the anal or vaginal area may be present 	1-2 months after ingestion of pinworm eggs. Eggs remain infective for 2-3 weeks in indoor environments.	<ul style="list-style-type: none"> • Fecal-oral route, spread by contaminated fomites. 	Contagious while female worms are discharging eggs to the skin around the anus.	Do not exclude. Family members are at highest risk for transmission. Treatment is available through a healthcare provider. Promote handwashing, wash toys frequently, and clean and sanitize surfaces used for eating, toileting, food preparation, and diapering to prevent transmission.
Respiratory Syncytial Virus (RSV) Outbreaks reportable	<ul style="list-style-type: none"> • Cold-like symptoms in most children • Wheezing and asthma attacks in children with asthma • May develop bronchiolitis or pneumonia 	Usually 2-8 days, ranges from 4-6 days	<ul style="list-style-type: none"> • Person-to-person: • Direct contact with nose and throat secretions on contaminated objects such as toys and other surfaces. • Droplet transmission through coughing and sneezing. 	Contagious for 3-8 days after symptom onset. May be contagious for a day prior to symptom onset.	Do not exclude unless other exclusion criteria are met (see page 4). Refer to a medical provider if severe symptoms are observed.

Disease (A-Z by Common Name)	Signs / Symptoms	Incubation Period	How it is Spread	Contagious Period	Recommendations
Ringworm Outbreaks are reportable, but are unlikely to occur.	<ul style="list-style-type: none"> Localized rash with red, circular patches with raised edges and central clearing Cracking and peeling Patchy areas of dandruff-like scaling on the scalp (hair loss may occur) 	Usually 10-14 days	<ul style="list-style-type: none"> Contact with infected humans, animals, or contaminated surfaces or objects. 	Infectious while rash is present. No longer infectious when the lesion begins to shrink after treatment or oral therapy begins.	Refer to healthcare provider at the end of the day, and if ringworm is confirmed, start treatment before returning. No exclusion is necessary if treatment is started before the next school day. Contact sports should be avoided for 72 hours after treatment is started unless the area can be covered.
Roseola	<ul style="list-style-type: none"> High fever (over 103°F measured orally) Fever may cause seizure activity Red, raised rash lasting from hours to several days (may not be present) 	Usually 9-10 days	<ul style="list-style-type: none"> Person-to-person; contact with inhalation of droplets from coughing or sneezing of the infected person 	After infection, virus remains present in the saliva on and off throughout a lifetime.	Exclude based on fever per school policy, and if other exclusion criteria are met. Readmit when exclusion criteria resolve (see page 4).
Rotavirus Outbreaks are reportable Vaccine preventable	<ul style="list-style-type: none"> Fever Diarrhea Nausea/vomiting Some children have very mild symptoms 	Usually 24-72 hours	<ul style="list-style-type: none"> Fecal-oral route: Spread through contact with feces of infected children, also toys and surfaces that are contaminated with feces of infected children. 	Virus can be present several days before diarrhea onset up to 8 days after onset of symptoms.	Consult with your local health department to consider exclusion when diarrhea stools are present. Hand washing and personal hygiene practices should be taken into account when considering exclusion.
Salmonellosis Single cases and outbreaks are reportable	<ul style="list-style-type: none"> Diarrhea Fever Abdominal cramping and pain Nausea/vomiting Occasional blood and mucous in stool 	Usually 12-36 hours, can range from 12 hours to 16 days	<ul style="list-style-type: none"> Contact with infected animals or their stool, contaminated or undercooked food and contaminated water. Person-to-person via fecal-oral route. 	Approximately half of children younger than 5 years will have <i>Salmonella</i> in stool 12 weeks after infection.	Consult with your local health department to consider exclusion when diarrhea stools are present, and readmit when exclusion criteria are resolved (page 4). Hand washing and personal hygiene practices should be considered.

Disease (A-Z by Common Name)	Signs / Symptoms	Incubation Period	How it is Spread	Contagious Period	Recommendations
<p>Scabies Outbreaks are reportable</p>	<ul style="list-style-type: none"> • Itching, can be severe at times, especially at night • Skin rash that is pimple-like • Tiny burrows are sometimes seen on the skin <p>Crusted (Norwegian)</p> <ul style="list-style-type: none"> • Severe form of scabies • Most infectious form • Characterized by vesicles and thick crusts over the skin 	<p>Four to six weeks for a primary infection. Those with a previous infection may develop symptoms in 1-4 days.</p>	<ul style="list-style-type: none"> • Spread through prolonged skin-to-skin contact with a person who has scabies • Contact with infected items such as clothing or bedding 	<p>Scabies mites generally do not survive more than 2 to 3 days away from human skin.</p>	<p>Treatment is recommended for members of the same household. Bedding and clothing worn or used next to the skin using the 3 days before treatment should be machine washed and dried using hot water and hot dryer cycles. Children and adults usually can return to childcare, school, or work the day after treatment.</p>
<p>Shigellosis Single cases and outbreaks are reportable</p>	<ul style="list-style-type: none"> • Loose, watery stools with blood or mucous • Fever • Headache • Convulsions • Abdominal pain 	<p>1-7 days</p>	<ul style="list-style-type: none"> • Contaminated or undercooked food and contaminated water. • Spread through contact with feces of infected children, also toys and surfaces that are contaminated with feces of infected children 	<p>Can be infectious up to 4 weeks after symptom onset.</p>	<p>Work with health department on exclusion. Consider exclusion when diarrhea is present. Take handwashing and personal hygiene practices into account when considering exclusion.</p>
<p>Shingles</p>	<ul style="list-style-type: none"> • Intensely painful rash • Present on one side of the body in a narrow strip • Can be itchy 	<p>Not applicable, caused by chicken pox virus remaining dormant in body.</p>	<ul style="list-style-type: none"> • Those with shingles can infect people with chickenpox (if they are non-immune) after close contact with the rash 	<p>Infectious until rash crusts over.</p>	<p>Exclude only if rash cannot be covered or other exclusion criteria are present.</p>

Disease (A-Z by Common Name)	Signs / Symptoms	Incubation Period	How it is Spread	Contagious Period	Recommendations
<p>Staph Infection (Staphylococcus aureus including resistant strains such as MRSA) Outbreaks reportable</p>	<ul style="list-style-type: none"> • Carriers have no signs or symptoms • Red bumps that may drain fluid • May have pus-filled boils • Infection of deep tissues may occur • Dark, red, streaking of skin with tenderness and/or pain 	Unknown	<ul style="list-style-type: none"> • Close skin-to-skin contact with infected fluids, contact with open sores, contact with contaminated surfaces, poor hygiene 	Contagious while lesions are actively draining fluids. Carriers remain contagious without symptoms.	Refer to healthcare provider if suspected. Exclude only if open areas cannot be covered or other exclusion criteria are present. Do not exclude carriers of <i>Staphylococcus aureus</i> .
<p>Strep Throat (Streptococcal Pharyngitis)/ Scarlet Fever Outbreaks of strep throat are reportable</p>	<ul style="list-style-type: none"> • Sore throat • Fever • Runny nose • Cough • Congestion • May also see headache, swollen glands 	Usually 2-5 days	<ul style="list-style-type: none"> • Person-to-person: • Direct contact with nose and throat secretions on contaminated objects such as toys and other surfaces. • Droplet transmission through coughing and sneezing. 	Infectious until treated with antibiotics.	Exclude until 12 hours after the start of antimicrobial therapy and all exclusion criteria are resolved (see page 4). <i>According to the AAP, new evidence supports readmitting students after twelve hours after the start of antimicrobial therapy, as opposed to the previous recommendation of 24 hours.</i>
<p>Whooping Cough (Pertussis) Single cases and outbreaks are reportable Vaccine preventable</p>	<ul style="list-style-type: none"> • Symptoms may be mild in vaccinated children • Cough lasting longer than 2 weeks • Vomiting after coughing • Sore throat • Sneezing/watery eyes • Head or ear ache • Fever 	Usually 9-10 days, ranges 6- 20 days.	<ul style="list-style-type: none"> • Person-to-person: • Direct contact with nose and throat secretions on contaminated objects such as toys and other surfaces. • Droplet transmission through coughing and sneezing. 	Infectious until 3 weeks after onset cough, or for five days after the start of antimicrobial therapy.	Work with the health department on exclusion of cases and symptomatic contacts, and also with a contact investigation of those exposed to the case. Post-exposure prophylaxis is warranted for some contacts. Exclude cases until 5 days of antibiotic therapy is completed.

Glossary

AAP: Abbreviation for the American Academy of Pediatrics, a national organization of pediatricians founded in 1930 and dedicated to the improvement of child health and welfare.

Acute: Adjective describing an illness that has a sudden onset and is of short duration.

Bacteria: Plural of bacterium. Organisms that may be responsible for localized or generalized diseases and can survive in and out of the body. They are much larger than viruses and usually can be treated effectively with antibiotics.

Body fluids: Urine, feces, saliva, blood, nasal discharge, eye discharge, and injury or tissue discharge.

Bronchiolitis: An inflammation of the small air tubes (bronchioles) that connect the larger tubes (bronchi) with the smallest chambers within the lung (alveoli). Exchange of gases (e.g., oxygen, carbon dioxide) with the blood occurs in the alveoli. Respiratory syncytial virus is the most common cause of bronchiolitis in young children. This illness is usually associated with runny nose and wheezing.

Chronic: Adjective describing an infection, illness, or condition that lasts a long time (months or years).

Communicable disease: A disease caused by a microorganism (e.g., bacterium, virus, fungus, parasite) that can be transmitted from person-to-person via an infected body fluid or respiratory spray, with or without an intermediary agent (e.g., tick, mosquito) or environmental object (e.g., table surface). Some communicable diseases are reportable to local health authorities.

Contamination: The presence of infectious microorganisms in or on the body, environmental surfaces, articles of clothing, or food or water.

Croup: A respiratory infection, caused by various viruses, that results in swelling of the voice box (larynx) and area below the voice box (sub glottis) that can cause difficult breathing, hoarse voice, and a cough sounding like a seal's bark.

Dermatitis: An inflammation of the skin caused by irritation from an external exposure or internal reaction or by infection.

Disinfect: To eliminate or inactivate virtually all germs from inanimate surfaces by using chemicals (e.g., products registered with the US Environmental Protection Agency as "disinfectants") or physical agents (e.g., heat). Disinfectants are used on nonporous surfaces, such as diaper or soiled underwear changing surfaces, door and cabinet handles, drinking fountains, and toilets and other toilet room surfaces.

Epiglottis: Tissue flap that closes during swallowing, and acts as a lid of the voice box. When this tissue becomes swollen and inflamed (a condition called epiglottitis), it can block breathing passages. *Haemophilus*

influenzae type b (Hib) commonly causes epiglottitis. This infection has been virtually eliminated in areas where standard infant immunizations and boosters are performed.

Exclusion: Denying admission of an ill child or staff member to a facility or asking them to leave if they are already present.

Excretion: Waste material that is formed and not used by the body (e.g., feces, urine).

Febrile: The condition of having an abnormally high body temperature (fever).

Fever: An elevation of body temperature considered meaningfully elevated above normal, although not necessarily an indication of a significant health problem. Body temperature can be elevated by overheating caused by overdressing or a hot environment, reactions to medications, inflammatory conditions (e.g., arthritis, lupus), cancers, and response to infection. A temperature considered to be a fever is a temperature taken by any method that is above 101° F [38.3° C] for infants and children older than 2 months and above 100.4° F [38.0° C] for any infant younger than 2 months.

Fungi: Plural of fungus. Organisms, such as yeasts, molds, mildew, and mushrooms, that get their nutrition from other living organisms or dead organic matter.

Germ: Small particles (viruses) or organisms (bacteria, fungi, or parasites) that may cause infections. Some germs are harmless.

Hygiene: Protective measures taken by individuals to promote health and limit the spread of infectious diseases.

Immunity: The body's ability to fight a particular infection. Immunity can come from antibodies (immune globulin), cells, or other factors. During fetal life, antibodies from mothers are transferred to their babies and provide some protection from infection for the first few months of life while the infant starts making antibodies for himself or herself. Some antibodies are produced by the newborn. During the first months of life, maternal antibodies steadily decrease and the infant's ability to make antibodies slowly increases. By 6 months of age, the healthy infant has the ability to make substantial amounts and types of antibodies from exposure to common infections and in response to immunizations. This ability usually reaches adult levels by 2 years of age.

Immunization: The process of giving vaccines or providing immunity by using medications. Vaccines help children and adults develop protection (antibodies) against specific infections. Vaccines may contain an inactivated or killed agent, part of the agent, an inactivated toxin made by an agent (toxoid), or a weakened live organism.

Immunocompromised: The state of not having normal body defenses (immune responses) against diseases caused by germs.

Incubation period: Time between exposure to an infectious microorganism and 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 usage of this term refers to parasites (e.g., lice, scabies) or pests (e.g., ticks, bedbugs) living on or in the body or in the environment in places where they are troublesome to people.

Influenza: Virus that typically circulates in the winter and causes respiratory illness. Not to be confused with the “stomach flu” true influenza infection typically results in fever accompanied by cough or sore throat.

Ingestion: The act of taking material (whether food or other substances) into the body through the mouth.

Intradermal: Relating to areas between the layers of the skin (as in intradermal injections).

Mucous membranes: The linings of body passages and cavities (e.g., mouth, eyes, nose, anus) that communicate directly or indirectly with the exterior of the body.

Norovirus: Virus that causes vomiting, nausea, and diarrhea. It is easily spread from person-to-person or through infected food. If you have norovirus illness, you can feel extremely ill and throw up or have diarrhea many times a day. This can lead to dehydration, especially in young children. Symptoms typically resolve in 1-3 days. Appropriate cleaning with bleach is critical to prevent the spread of illness.

Organisms: Living things. Often used as a general term for germs (e.g., bacteria, viruses, fungi, parasites).

Outbreak: A sudden rise in the incidence of a disease, i.e., more cases of a particular disease than expected over a given period of time, or two or more cases of a specific illness with a suspected common exposure. See the infographic on page 7 for more information on how to define an outbreak.

Parasite: A multicellular organism that lives on or in another living organism (e.g., ticks, tapeworm, louse, mite, pinworm).

Post-Exposure Prophylaxis (PEP): Preventive medical treatment started after exposure to a pathogen (such as a disease-causing virus), in order to prevent the infection from occurring. This treatment may include antibiotics, vaccination, or antiviral therapies.

Respiratory tract: The nose, ears, sinuses, throat, windpipe, and lungs.

Rhinovirus: The most common virus that causes the common cold.

RSV: Abbreviation for respiratory syncytial virus, a virus that causes colds, bronchitis, and pneumonia.

Sanitize: To reduce germs on inanimate surfaces to levels considered safe by public health codes or regulations. For an inanimate surface to be considered sanitary, the surface must first be clean (see *Clean*) and the number of germs must be reduced to such a level that disease transmission by that surface is unlikely. Sanitization is less rigorous than disinfection (see *Disinfect*) and is applicable to a wide variety of routine housekeeping procedures involving, for example, plastic toys that may have been mouthed, mixed use tables, high chair trays, food preparation surfaces, eating utensils, and computer keyboards.

Scarlet fever: A fine rash that makes the skin feel like sandpaper caused by a streptococcal (bacterial) infection.

Screening: Mass examination of a population group to detect the possible existence of a particular disease (e.g., diabetes, tuberculosis) to determine immunization status or other aspects of health status. Screening must be followed up by diagnostic testing to confirm the suspected condition is actually present.

Secretions: Wet materials, such as saliva, that are produced by cells or glands and have a specific purpose in the body.

Seizure: A sudden attack or convulsion caused by involuntary, uncontrolled bursts of electrical activity in the brain that can result in a wide variety of clinical manifestations, including muscle twitches, staring, tongue biting, loss of consciousness, and total body shaking.

Varicella zoster: The virus that causes chickenpox and shingles.

Virus: A microscopic organism, smaller than a bacterium, containing DNA or RNA but not both, that may cause disease. Viruses can grow or reproduce only in living cells. Examples include respiratory syncytial virus, influenza, measles, and hepatitis B.