COLORADO
Department of Public Health & Environment

Infectious Diseases in Child Care and School Settings

Guidelines for Child Care Providers and Health Consultants, School Nurses and Other Personnel

Acknowledgements

These guidelines were compiled by the Communicable Disease branch at the Colorado Department of Public Health and Environment. We would like to thank many subject matter experts at CDPHE for reviewing the document for content and accuracy. We would also like to acknowledge Donna Hite, Kate Lujan, Jillian Jaskunas, Theresa Rapstine, Deborah Monaghan, and Margaret Comstock for their comments and assistance in reviewing these guidelines for the major update that occurred in 2019. Special thanks to Heather Dryden, Program Assistant in the Communicable Disease branch, for expert formatting assistance that makes this document readable.

These guidelines are not a substitute for the School and Child Care Facility Health and Sanitation Regulations.

Child care regulations

School regulations

Revisions / Updates

Date	Description of changes	Pages/sections affected
2012	Major revision to content and format; combine previous separate guidance documents for child care and schools into one document	Throughout
Dec. 2014	Updated web links due to CDPHE website change; updated several formatting issues; added hyperlinks to table of contents; no content changes	Throughout
May 2015	Added updated FERPA letter from the CO Dept of Education; added links to additional info to the animal contact section in the introduction; added new bleach concentration disinfection guidance	Introduction
Oct. 2015	Corrected reporting information for aseptic meningitis	Aseptic Meningitis
Jan. 2016	Added information on animals in child care centers; updated bleach recommendations and EPA cleaners link; ensured that these guidelines are consistent with the new child care center regulations; updated reportable disease list; guidance on Clostridium difficile	Introduction, various sections
July 2019	Update content throughout; add guidance for parents/caregivers; add sections for tick borne illness and tularemia	Throughout

Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530
P: 303-692-2700 | F: 303-782-0338

Date	Description of changes	Pages/sections affected
Jan. 2020	Clarify disinfection and sanitation guidance; align measles incubation period language with Communicable Disease Manual; simplify STEC and Shigella exclusion language	
March 2022	Updated content throughout; added guidance for SARS-CoV-2 Disease (COVID-19) to align with CDPHE website school guidance; updated bleach concentrations	Throughout
September 2022	Added guidance on monkeypox	Monkeypox
December 2023	Updated respiratory illness chapters to align with new guidelines, prevention and treatment options	Common cold, Croup, Influenza, and RSV

Table of contents

(alphabetical by disease name)

Diseases in **bold** are conditions reportable to public health in Colorado. Any outbreak, regardless of etiology or setting, is reportable to public health.

Diseases grouped by type of spread
Introduction
Animal bites/rabies
Bacterial meningitis
Bed bugs
Campylobacteriosis
Chickenpox (Varicella) and Shingles (Herpes Zoster)
Chlamydia
Clostridium difficile (C. difficile)
Cytomegalovirus (CMV)
Common Cold
COVID-19 (SARS-CoV-2 Disease)
Croup
Cryptosporidiosis
E. coli O157 and other Shiga toxin-producing E. coli (STEC)
Fifth disease (Human Parvovirus B19)
Genital herpes (Herpes Simplex Virus (HSV))
Genital warts (Human Papillomavirus (HPV))
Giardiasis
Gonorrhea
Hand, Foot, and Mouth Disease (HFM)
Head lice (Pediculosis)
Hepatitis A
Hepatitis B
Hepatitis C
Herpes (Cold Sores, Fever Blisters)
HIV and AIDS
Impetigo
Influenza
Measles
Molluscum contagiosum
Mpox
Mononucleosis
Methicillin-resistant Staphylococcus aureus (MRSA) and Staphylococcus aureus
Mumps
Norovirus and other viral gastroenteritis
Pertussis (whooping cough)
Pink eye (Conjunctivitis)
Pinworm
Pubic lice (Crabs)
Rashes
Respiratory Syncytial Virus (RSV)
Ringworm and other fungal skin infections (tinea, dermatophytes)
Roseola (sixth disease)
Rotavirus

Rubella (German measles)
Salmonellosis
Scabies
Sexually transmitted infections (STIs)
Shigellosis
Streptococcal sore throat (strep throat)
Syphilis
Tetanus
Tick-borne illness
Tuberculosis (TB)
Tularemia
Viral meningitis (Aseptic meningitis)

Summary chart

Diseases grouped by type of spread

Droplet transmission / infectious discharges
Chickenpox (Varicella)*
Common cold
Croup
Fifth Disease
Hand, Foot, and Mouth Disease (HFMD)
Influenza
Meningitis (Bacterial)
Meningitis (Viral)
Monkeypox
Mumps*
Pink Eye (Conjunctivitis)
RSV (Respiratory Syncytial Virus)
Rubella (German Measles)*
Strep Throat (Streptococcal sore throat)
Whooping Cough (Pertussis)

Airborne transmission
Measles (Rubeola)*
Tuberculosis

Fecal → oral spread
Campylobacter
Clostridium difficile
Cryptosporidium
E. coli O157 & other Shiga toxin-producing *E. coli* (STEC)
Giardia
Hand, Foot, and Mouth Disease (HFMD)
Hepatitis A*
Meningitis (Viral)
Norovirus and other viral gastroenteritis
Pinworm
Rotavirus*
Salmonella
Shigella

Skin contact / direct contact
Animal Bites/Rabies
Bed Bugs
Chickenpox (Varicella)* and Shingles (Herpes Zoster)
Head Lice (Pediculosis)
Herpes (cold sores, fever blisters)
Impetigo
Molluscum contagiosum
Mpox
MRSA
Pubic lice (crabs)
Ringworm (Tinea)
Scabies
Staphylococcus aureus
Tetanus*

Blood / body secretions contact
CMV (Cytomegalovirus)
Hepatitis B*
Hepatitis C
HIV and AIDS
Mononucleosis

Sexually-Transmitted Diseases
Chlamydia
Genital herpes
Genital warts
Gonorrhea
Hepatitis B*
HIV and AIDS
Syphilis

Introduction

Infectious disease in child care and school settings

Infectious diseases are caused by organisms such as bacteria, viruses, and parasites. Some infectious diseases can be spread from one person to another. Illnesses caused by infectious diseases are a common occurrence in children in child care and school settings. Child care providers, child care health consultants, school personnel, and school nurses should be aware of infectious diseases that affect children and be familiar with how to minimize their spread. These guidelines address infectious diseases often seen in children and provide ways to prevent, reduce, and control their spread. Most cases of illness are isolated to one child, but occasionally, an outbreak of a particular disease can occur in a child care or school setting. **Suspected outbreaks of any disease in any setting must be reported to the state or local public health agency immediately.**

These guidelines are based on current health information. Recommendations for handling infectious disease issues in child care and school settings may change as new information becomes available. In addition, new infectious disease concerns sometimes emerge. The Communicable Disease branch at the Colorado Department of Public Health and Environment can help child care providers, child care health consultants, school personnel, and school nurses when infectious disease issues arise and can be reached at 303-692-2700. Local public health agencies are also available for consultation on infectious disease issues. Find your local public health agency and its contact information here.

Public health reporting requirements, case investigation, and outbreak investigation

By law, certain diseases and conditions are reportable to public health for surveillance and investigation purposes and to implement disease control measures. Per Colorado regulation 6 CCR 1009-1 "Rules and Regulations Pertaining to Epidemic and Communicable Disease Control," **people either treating or having knowledge of a reportable disease, whether the disease is suspected or confirmed, must report the case to the state or local public health agency. This includes schools and licensed child care providers.** A list of diseases and conditions reportable in Colorado is available in the next section, as well as on CDPHE's Report a Disease page. This website also contains a link to the Colorado statutes and regulations that address disease reporting.

When a suspected or confirmed disease case is reported, public health agencies may conduct an investigation to confirm the diagnosis, assess treatment options (if applicable), determine the cause of the illness, determine if anyone else has been exposed, and implement appropriate methods of disease control. **Outbreaks of any disease, in any setting, must be reported to the state or local public health agency immediately.** In an outbreak situation, the state or local public health agency will work with the child care facility or school to achieve the following:

- Control and prevent further spread of disease;
- Identify ill people so they can receive proper treatment if indicated;
- Attempt to identify the source of the outbreak;
- Determine who might have been exposed to the source or ill people;
- Identify infection risk factors;
- Evaluate existing prevention strategies.

Child care facilities and schools can also contact the state and/or local public health agencies about infectious conditions that are not reportable, especially if the facility has questions about notifying parents, exclusion, and disease control measures. School and facility closure recommendations are made on a case-by-case basis and consider factors such as attendance of students/children and staff, disease or illness severity, and vulnerability of children and staff. Consultation with local or state public health staff can help inform a facility administration's decision to close due to illness.

Per the "Rules and Regulations Governing the Health and Sanitation of Child Care Facilities in the State of Colorado" (available here), in addition to consulting with the state or local public health agency, child care facilities should also consult with their child care health consultant about any type of communicable disease issue, case, or outbreak. Child care facilities are inspected routinely by either the state or local public health agency to ensure compliance with the health and sanitation regulations. These inspections are typically conducted by Environmental Health Specialists employed at the state/local public health agency. It is acceptable for a child care facility to report cases of illness or outbreaks to the Environmental Health Specialist who conducts the health and sanitation inspections. Typically, the Environmental Health Specialist will then consult with the public health nurse or epidemiologist within his/her public health agency or at CDPHE to determine the best course of action.

To report a suspected or confirmed disease case or outbreak, please contact your local public health agency (contact information can be found at the link) or CDPHE at 303-692-2700 or 800-866-2759 (after-hours: 303-370-9395). To the extent it is available, the following information should be reported for all suspected or confirmed cases:

- Diagnosis.
- Patient's name.
- Date of birth.
- Sex.
- Race and ethnicity.
- Address (including city and county).
- Phone number.
- Parent/Guardian name.
- Preferred language.
- Name and address of the responsible health care provider.
- Laboratory test results.
- Case suspected or confirmed.

Schools, public health reporting, and FERPA

Regarding student confidentiality and privacy, the federal Family Educational Rights and Privacy Act (FERPA) prohibits sharing of health-related information except in certain well-defined circumstances, including but not limited to: specified officials for audit or evaluation purposes, and appropriate officials in cases of health and safety emergencies. **Notifying the state or local public health agency of a reportable disease in a student or an outbreak in a school does not breach FERPA confidentiality laws**. In these situations, schools may disclose personally identifiable information to public health officials without prior parent consent.

Communicable Reportable Conditions | Effective June 18, 2023

Confidential fax: 303-782-0338 STI/HIV confidential fax: 303-782-5393 Toll-free fax: 800-811-7263	Phone: 303-692-2700 Toll-free phone: 800-866-2759 Evenings/weekends: 303-370-9395	How to report: cdphe.colorado.gov/report-a-disease • Disease reporting form • Specimen submission guidance

Complete Board of Health rules can be found on the regulations adopted by the Board of Health webpage.

As indicated below, reporting by labs (diagnostic results and those highly correlated with disease) and providers (including suspected conditions) is required in accordance with Regulation 6 CCR 1009-1. In addition to reporting positive laboratory results to public health, clinical laboratories are required to submit isolates and/or clinical material to the CDPHE Laboratory for select pathogens. For all other pathogens, isolate/clinical material submission may be requested.

Immediate reporting by phone is required of any illness that may be caused by biological, chemical, or radiological terrorism.

Time	Rep	Pathogen	Time	Rep	Pathogen
4d	L	*Acinetobacter baumannii*, carbapenem-resistant (CRAB)*	4d	P	Influenza-associated death if <18 years
4d	P	Acute flaccid myelitis	4d	L&P	Influenza-associated hospitalization
24h	P	Animal bites by dogs, cats, bats, skunks, foxes, raccoons, coyotes, or other wild carnivores	4d	L&P	Legionellosis
			4d	P	Leprosy (Hansen's Disease)
4d	P	Animal bites by mammals not listed above	4d	L&P	Listeriosis*
Imm	**L&P**	**Anthrax***	4d	L&P	Lyme disease
4d	L	Arboviral Disease	4d	L&P	Lymphogranuloma venereum (LGV)◊
4d	L&P	Blastomycosis	4d	L&P	Malaria
Imm	**L&P**	**Botulism**	**Imm**	L&P	**Measles (rubeola)**
4d	L&P	Brucellosis*	**Imm**	L&P	**Meningococcal disease (*N. meningitidis* or gram neg diplococci)†***
4d	L&P	Campylobacteriosis	CMS	P	Methicillin-Resistant *Staphylococcus aureus* (MRSA) bacteremia≈
Imm	L&P	***Candida auris****	4d	L&P	Mpox (Monkeypox)
30d	L	Candidemia 5-county	4d	P	Multisystem Inflammatory Syndrome in Children (MIS-C) if <21 years
4d	L	Carbapenemase-producing organisms*	4d	L&P	Mumps
4d	L&P	Chancroid◊	30d	L	*Mycobacterium*, nontuberculous (NTM) 5-county
4d	L	Chikungunya	**Imm**	L&P	**Outbreaks** — known or suspected of all types — including those transmitted from food, water, person-to-person, and related to a healthcare setting
4d	L&P	Chlamydia, any site◊			
Imm	L&P	**Cholera***			
4d	P	CJD and other transmissible spongiform encephalopathies (TSEs)	1wd	L&P	Pertussis (whooping cough)
30d	L	*Clostridium difficile* infection 5-county	**Imm**	L&P	**Plague***
4d	L&P	Coccidioidomycosis	**Imm**	L&P	**Poliomyelitis**
4d	L	Colorado tick fever	4d	L	*Pseudomonas*, carbapenem-resistant
4d	L&P	COVID-19: SARS-CoV-2 (+ NAAT, rapid antigen tests, and COVID-19 lineage or sequencing)	4d	L&P	Psittacosis
			4d	L&P	Q fever
4d	L&P	COVID-19: SARS-CoV-2 (negative or inconclusive result on any NAAT test)	**Imm**	L&P	**Rabies: human (suspected)**
4d	L&P	COVID-19-associated hospitalization	4d	P	Respiratory Syncytial Virus-associated death if <18 years
Imm	L&P	**Coronavirus - severe or novel (MERS-CoV or SARS-CoV) or other severe or novel coronavirus other than SARS-CoV-2**	4d	L&P	Respiratory Syncytial Virus-associated hospitalizations
			4d	L&P	Rickettsiosis
4d	L&P	Cryptosporidiosis	1wd	L&P	Rubella (acute infection)
4d	L&P	Cyclosporiasis	4d	L&P	Rubella (congenital)
4d	L	Dengue	4d	L&P	Salmonellosis*
Imm	L&P	**Diphtheria***	4d	L&P	Shigellosis*
4d	P	Encephalitis	**Imm**	L&P	**Smallpox**
4d	L	Enterobacterales, carbapenem-resistant (CRE)*	4d	L	*Staphylococcus aureus*, Vancomycin-non-susceptible*
30d	L	Enterobacterales, extended-spectrum beta-lactamase (ESBL) Boulder	4d	L	*Streptococcus pneumoniae*†**
30d	L	*Escherichia coli* invasive infections† Boulder	1wd	L&P	Syphilis, *Treponema pallidum* (all reactive tests)◊
4d	L&P	*Escherichia coli* O157:H7 and Shiga toxin-producing *Escherichia coli**	4d	P	Tetanus
4d	L&P	Giardiasis	4d	L&P	Tick-borne relapsing fever (*Borrelia* species and Spirochetemia except *burgdorferi* species)
4d	L&P	Gonorrhea, any site, including disseminated gonorrhea◊			
4d	L	Group A streptococci†* 5-county	4d	P	Toxic shock syndrome (streptococcal and non-streptococcal)**
30d	L	Group B streptococci†* 5-county	4d	P	Trichinosis
1wd	L&P	*Haemophilus influenzae*†*	1wd	L&P	Tuberculosis disease (active)*
4d	L&P	Hantavirus disease	4d	L	Tuberculosis immune reactivity (+IGRA)‡
4d	P	Healthcare-associated infections	1wd	L&P	Tularemia*
4d	P	Hemolytic uremic syndrome if <18 years	1wd	L&P	Typhoid fever*

1wd	L&P	Hepatitis A (+IgM anti-HAV, +PCR or +NAAT)	4d	L&P	Varicella (chicken pox)
4d	L&P	Hepatitis B (+HBsAg, +IgM anti- HBc, +HBeAg, or +HBV DNA)	4d	L	Vibriosis*
4d	L&P	Hepatitis C (+ serum antibody titer and/or + confirmatory assays)	**Imm**	L&P	**Viral hemorrhagic fever***
4d	L	Hepatitis C (- confirmatory assays)	4d	L	West Nile virus (acute infection)
4d	P	Hepatitis, other viral	4d	L	Yellow fever
4d	L&P	Histoplasmosis	4d	L	Yersiniosis* [7-county]
4d	L&P	Human immunodeficiency virus (HIV)/acquired immunodeficiency syndrome (AIDS)◊ (All reactive HIV tests, CD4 counts [any value], HIV viral load [any value], HIV genotype)	4d	L	Zika virus

[5-county] Adams, Arapahoe, Denver, Douglas and Jefferson
[7-county] Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas and Jefferson
[Boulder] Boulder County only
** Isolate submission for 5-county area only.
† positive test from a normally sterile site

Time = Time to report | Rep = Reporter
Imm = Immediately (by phone within 4 hours of suspected diagnosis)
24h = 24 hours | 1wd = 1 working day
4d = 4 calendar days | 30d = 30 calendar days
L = laboratory | P = provider | L&P = both

‡ Positive interferon gamma release assays (IGRAs) are only reportable by laboratories that use electronic reporting (ELR).
◊ Health care providers need to report sex at birth, gender identity, and relevant treatment.
* Submission of isolate/clinical material required. Testing laboratories shall routinely submit bacterial culture isolates or patient clinical material that yields positive findings to the CDPHE Laboratory Services Division. The isolate or clinical material shall be received at the CDPHE Laboratory Services Division no later than one working day after the observation of positive findings. Clinical material is defined as: (i) A culture isolate containing the infectious organism for which submission of material is required, or (ii) if an isolate is not available, material containing the infectious organism for which submission of material is required, in the following order of preference: (A) A patient specimen; (B) nucleic acid; or (C) other laboratory material. For TB, only isolates should be submitted.
≈ Catheter-associated urinary tract infections (CAUTI) and Methicillin-resistant Staphylococcus aureus bacteremia are reported by conferring rights to the Department to National Healthcare Safety Network (NHSN) data. Additional conditions are reported through NHSN by determination of the HAI Advisory Committee: https://cdphe.colorado.gov/hai. Facilities also report HAIs through voluntary participation in applied public health projects. Reporting timelines vary.

Send isolates/clinical material to:	**All reports and specimens shall be accompanied by the following information:**	
8100 Lowry Blvd Denver, CO 80230 **Phone:** 303-692-3090	• Patient's first and last name • Patient's date of birth, sex, race, ethnicity • Patient's home address, phone, and email • Patient's preferred language	• Name of disease or condition • Health care provider's name, address, and phone number • Laboratory information (test name, collection date, specimen type, accession number, and result) • Pregnancy status (for HIV and syphilis reports)

Memo

COLORADO
Department of Education

To: Superintendents and Colorado BOCES
FROM: Randy Boyer, Assistant Commissioner
DATE: February 13, 2015
Re: Communicable Diseases and Conditions Reportable by School Personnel under Colorado Law and Related Confidentiality Duties Under Federal Law

Over the last several months, there has been an increase in incidences of pertussis and flu in Colorado. The Colorado Department of Education (CDE) has been asked to provide updated guidance to school districts regarding: (1) School providing timely reports to Colorado Department of Health and Environment (CDPHE) or local health departments about the occurrence of pertussis in public school settings; and (2) state and/or local publi health department's duty and authority to conduct public health investigations in response to reports of pertussis and other 24 hour reportable conditions (as defined by the CDPHE) in public school settings.

In response to various media outlets reporting the rise in reported cases of the Enterovirus D68, as well as the Ebola outbreak, on October 3, 2014, the United States Department of Education (USDOE)Family Compliance Office (FPCO) issued the following statement and guidance, affirming that the October 2009 USDOE guidance remains in effect:

> the Family Policy Copliance Office (FPCO) has received a few inquiries regarding the applicability of the Family Educational Rights and Privacy Act (FERPA) in regard to the disclosure of personally identifiable information from education records to local health officials. Given these inquiries, we thought it prudent to remind you of the guidance issued by FPCO in Otober 2009 in response to concerns at that time regarding the H1N1 flu outbreak. This guidance document is available on our website at: http://www2.ed.gov/policy/gen/guid/fpco/pdf/ferpa-h1n1.pdf. Although, the guidance is specific to H1N1, the context of the guidance is applicable today in terms of Enterovirus D68, Ebola, etc. Additional quiestions may be forwarded to FERPA@ed.gov.

Set forth below is a summary of applicable law.

State Law Requirements

The State Board of Health is authorized to determine which diseases and conditions are dangerous to the public health. The state Board of Health also has the authority to require reports by persons with knowledge and without patient consent to the CDPHE and local health departments of the occurrences of such diseases and conditions.[1] The reports must contain "the name, address, sex, diagnosis, and such other information as the board determines is necessary to protect the public health."[2] The CDPHE and local health departments are authorized "to investigate and control the causes of epidemic and communicable diseases affecting the public health."[3]

The State Board of Health has designated certain communicable diseases that must be reported to the state or local public health department within 24 hours of confirmation or suspicion. The current list of 24-hour reportable communicable diseases and conditions, which includes "pertussis" can be accessed at: https://drive.google.com/file/d/16H86FrKGjoK3nDaYBpfqbR9YrcFNs9Gq/view.

The communicable diseases and conditions identified are considered emergency public health events due to some combination of the potential seriousness of the illness; degree of communicability (and therefore, potential to cause a disease outbreak); and existence of specific health intervention (e.g., post-exposure vaccination, post-exposure administration of antibiotics, isolation or quarantine) to interrupt transmission (and prevent/control outbreak). To be effective, these public health interventions are, typically, extremely time sensitive.

1 *See* C.R.S. §§ 25-1.5-102(1)(a)(II) and 25-1-122.

2 Colo. Rev. Stat. §25-1-122(1)

3 Colo. Rev. Stat. §25-1.5-102(1)(a)(I).

FERPA Requirements

FERPA applies to all schools that receive federal funding under an applicable program of the U.S. Department of Education. Generally, schools must obtain the parent's written consent before releasing information from his/her child's education records.

FERPA contains several exceptions to the general prohibition of disclosure of information from education records without prior parent consent. Applicable here are the following exceptions:

- Disclosure to appropriate officials in cases of health and safety emergencies[4]
- Disclosure of directory information such as a student's name, address, telephone number, date and place of birth and dates fo attendance.[5] It should be noted that, in order to publish directory information, the school district must give the parent notice of the intended publication and an opportunity to opt out of the publication.

Regarding health or safety emergencies, in its recently reaffirmed 2009 guidance, the Family Policy Compliance Office states as follows:

an educational agency or institution is responsible for making a determination whether to make a disclosure of personally identifiable information on a case-by-case basis, taking into account the totality of the circumstances pertaining to the threat. If the school district or school determines that there is an articulable and significant threat to the health or safety of the student or other individuals and that certain parties need personally identifiable information from education records to protect the health or safety of the student or other individuals, it may disclose that information to such appropriate parties without consent. 34 CFR § 99.36. This is a flexible standard under which the Department defers to school administrators so that they may bring appropriate resources to bear on the situation, provided that there is a rational basis for the educational agency's or institution's decisions about the nature of the emergeny and the appropriate parties to whom information should be disclosed. We note also that, within a reasonable period of time after a disclosure is made under this exception, an educational agency or institution must record in the student's education records the articulable and significant threat that formed the basis for the discloure and the parties to whom information was disclosed. 34 CFR § 99.32(a)(5).

Thus, it continues to be the guidance of the CDE that those communicable diseases and conditions that are required to be reported within 24 hours and considered to be emergency public health events should generally be considered to fall within the "health or safety" exception to FERPA's "prior parent consent" rule.

It should be noted that FERPA applies only to information in education records; it does not apply to information known or obtained from sources other than education records, such as personal observations or verbal communication with parents. Thus, information that is not contained in education records, including direct observation of those communicable diseases and conditions that are considered emergency public health events, should not be considered as falling within FERPA's "prior parent consent" rule.

Finally, a school district may seek to obtain prior written parent consent for release by school officials of information required by Colorado law through a consent form presented to parents during the annual registration process. Prior parent consent obtained in this manner would apply to situations involving not only health emergencies but also to other diseases and conditions, such as varicella (chicken pox), authorized by the State Board of Health to be reported to the CDPHE and local health departments within 7 days of diagnosis.

To report a communicable disease: https://cdphe.colorado.gov/report-a-disease

Note: This is guidance issued by the Colorado Department of Education and does not constitute legal advice. If you need legal advice, please contact your legal counsel.

4 21 U.S.C. § 1232g(b)(1)(1) and (h); 43 C.F.R. Part 99.36

5 20 U.S.C. § 1232G(a)(5)(A) and (B); 34 C.F.R. Part 99.36

Informing parents/guardians of illness in the facility

When a child care facility or school has a child or staff member ill with an infectious disease, the question often comes up as to whether the facility needs to send a letter home to parents/guardians/caregivers of other children, or post a notice at the facility informing parents/guardians/caregivers of the illness. This is often dependent on the disease, the potential risk of spread to others, the presence of symptoms in other children/staff, and policies in place at the facility. Public health can help a facility or school in determining whether or not a letter or notice is necessary. In outbreak situations, it is common for public health to work with the facility or school to draft a letter to share with parents/guardians/caregivers, as well as a health alert to distribute to health care providers in the area.

Exclusion guidelines for children and staff

Excluding children

Excluding a child who has an infectious disease from attending child care or school may decrease the spread of illness to others. The decision to exclude is typically based on the disease, and it should be made in conjunction with the school nurse or the child care health consultant, state or local public health agency, health care professionals, and parents/guardians. Exclusion recommendations are included for each disease or condition addressed in these guidelines.

In situations in which a child does not have a diagnosed disease/condition but has signs or symptoms indicative of a potentially infectious disease, exclusion may also be warranted. Generally, if any of the following conditions apply, exclusion from child care or school should be considered:

- The child does not feel well enough to participate comfortably in usual activities.
- The child requires more care than the child care or school personnel are able to provide.
- The child is ill with a potentially contagious illness, and exclusion is recommended by a health care provider, the state or local public health agency, or these guidelines.
- The child has signs or symptoms of a possible severe illness, such as trouble breathing.
- The facility is experiencing an outbreak.

In cases in which unvaccinated children are exposed to a vaccine preventable disease (such as measles, mumps, rubella, and pertussis), the state or local public health agency should be consulted in order to determine if exclusion of unvaccinated children is necessary.

The chart below lists common symptoms that could possibly be related to an infectious disease. The chart indicates whether it is recommended to exclude a child exhibiting a particular symptom from child care or school. If a child is excluded based on symptoms (and not a diagnosed illness), the child should be allowed to return to child care or school once symptoms have subsided, or a health care provider clears the child or determines the illness is not communicable, provided that the child can participate in routine activities. CDPHE has another tool called "How Sick is Too Sick" that can help school and child care staff, and parents/guardians/caregivers determine if a child should stay home due to illness.

Symptom	Exclusion guidelines
Cough	Exclusion is recommended if the child is experiencing severe, uncontrolled coughing or wheezing, having difficulty breathing, becoming red or blue in the face, making high-pitched whooping sounds after coughing, or vomiting after coughing.
Diarrhea (defined as stools that are more frequent and looser than usual)	Exclusion is recommended (for at least 24 hours after the last episode of diarrhea) if any of the following conditions apply: the child has other symptoms along with the diarrhea (such as vomiting, fever, abdominal pain, jaundice, etc.), the diarrhea cannot be contained in a toilet, there is blood or mucous in the stool, or the child is in diapers.
Earache	No exclusion is necessary.
Fever (defined as a body temperature from any site	No exclusion is necessary, unless the child has symptoms in addition to the fever, such as a rash, sore throat, vomiting, diarrhea, behavior changes, stiff neck, difficulty breathing,

Symptom	Exclusion guidelines
over 100.4˚F for infants younger than 2 months and 101˚F for infants and children older than 2 months)	etc.
Headache	No exclusion is necessary, unless the headache is severe and accompanied by additional symptoms like vision problems, stiff neck, or behavior change.
Jaundice or unusual color of the skin, eyes, stool, or urine	Exclusion is recommended until a medical exam indicates the child does not have hepatitis A.
Mouth sores	Exclusion is recommended if the child is drooling uncontrollably.
Rash	Exclusion is recommended if the child has symptoms in addition to the rash, such as behavior change, fever, joint pain, or bruising not associated with injury, or if the rash is oozing or causes open wounds. Find additional information on rashes later in this document.
Stomach ache/abdominal pain	Exclusion is recommended if the pain is severe, if the pain appears after an injury, or if the child had symptoms in addition to the stomach ache (such as vomiting, fever, diarrhea, jaundice, etc.).
Swollen glands (properly called swollen lymph nodes)	Exclusion is recommended if the child has symptoms in addition to the swollen glands, such as difficulty breathing or swallowing, fever, etc.
Vomiting	Exclusion is recommended (for at least 24 hours after the last episode of vomiting) if the child has vomited more than two times in 24 hours, if the vomit appears bloody, if the child has a recent head injury, or if the child has symptoms in addition to the vomiting (such as fever, diarrhea, etc.).

When a child has symptoms while at the school or child care facility, the following actions should be taken:

- Inform the school nurse, child care health consultant, or designated staff of the symptoms.
- Separate the ill child from the other children.
- Document the symptoms on the illness log.
  - Sample illness log
- Take the child's temperature and record it on the illness log.
- If a child is coughing or sneezing, remind them to cover their mouth and to wash their hands afterward.
- After you touch an ill child, avoid touching other children until you have washed your hands.
- Inform the ill child’s parents/guardians of the symptoms. If it is determined that the child needs to be excluded, keep the ill child separated from other children until the parent/guardian/caregiver can pick up the child.
- Equipment, bedding, or toys used by the ill child should be cleaned and sanitized or disinfected afterward.

Excluding staff

Occasionally, child care and school personnel become ill with an infectious disease. When this occurs, the child care facility or school should consult with the state or local public health agency to determine whether the ill staff member can work. If ill with diarrhea or vomiting, child care and school personnel should not work until at least 24 hours after the last episode of vomiting or diarrhea. This is especially important for staff that work in food service or handle food in any manner and for staff that work with infants and toddlers (including staff that prepare and serve bottles to infants/toddlers). During an outbreak or diagnosis with some infectious pathogens, staff may be required to be excluded for longer than 24 hours. Consult state or local public health if a staff member has an infectious disease diagnosis.

Considerations for children who are developmentally disabled or immunocompromised

Disease control guidelines for children with developmental disabilities or who are immunocompromised may be different than the guidelines presented in this document. In situations where a child with developmental disability or who is immunocompromised has an infectious disease or is exposed to another child with an infectious disease, the child care health consultant or school nurse should be consulted. The state or the local public health agency is also available for consultation.

Illness transmission

Infectious diseases can be spread in a variety of ways, referred to as transmission routes.

Droplet transmission / Infectious discharges

Diseases with respiratory tract symptoms (runny nose, cough, sore throat, sneezing) are often spread by droplets containing viruses or bacteria or by surfaces contaminated with nose/throat discharges from people with infection. Droplets are generated during coughing, sneezing, or talking. These "large" droplets generally travel less than three feet before falling to the ground and do not remain suspended in the air. Before falling to the ground, droplets may be deposited on the mucous membranes of the eye, nose, or mouth of another person within three feet, resulting in disease transmission. In addition, sick people, especially children, will often contaminate their hands and other objects with infectious nose/throat discharges. When another person comes in contact with these objects and then touches their eyes, mouth, or nose, they can become infected. This type of transmission route is common in child care and school settings. Some of the infections passed in this way are the common cold, SARS-CoV-2, chickenpox, croup, fifth disease, hand, foot and mouth disease, influenza, meningitis (viral and bacterial), mumps, rubella, pertussis (whooping cough), pink eye (conjunctivitis), RSV, and strep throat.

Airborne transmission

This mode of transmission is rare and only a few diseases are spread by this route (such as SARS-CoV-2 in some circumstances and conditions, measles, and tuberculosis). Airborne transmission occurs when a person with infection coughs, sneezes, or talks and generates very small respiratory particles (droplet nuclei) containing viruses or bacteria. These small particles remain suspended in the air for long periods and can be widely dispersed by air currents. When another person inhales these small particles, they can potentially become ill.

Fecal → oral transmission

Intestinal tract infections are often spread through oral ingestion of viruses, bacteria, or parasites found in the stool of a person or animal with infection. This type of transmission happens when objects contaminated with microscopic amounts of human or animal feces are placed in the mouth. In child care and school settings, sites frequently contaminated with feces are hands, diaper changing tables, classroom floors, faucet handles, toilet flush handles, toys, and tabletops. Fecal→oral transmission can also occur when food or water is contaminated with microscopic amounts of human or animal feces and then ingested. Organisms spread by this transmission route include: *Campylobacter*, *Clostridioides difficile*, *Cryptosporidium*, Shiga toxin-producing *E. coli* (which includes *E. coli* O157:H7), *Giardia*, hepatitis A, *Salmonella*, *Shigella*, and a variety of intestinal viruses like norovirus. Other infections like hand, foot, and mouth disease, and viral meningitis can also be spread through this route.

Skin contact/direct contact

Some infections can be spread directly by skin-to-skin contact, or indirectly by contact with contaminated surfaces like clothing. Chickenpox (varicella), shingles (herpes zoster), herpes, head lice, impetigo, molluscum contagiosum, MRSA, ringworm, scabies, and tetanus are all spread this way.

Blood/body secretions contact

Some infections are transmitted when a cut or mucous membrane (linings of various body parts and internal organs) comes in contact with the blood or other body secretions like saliva, urine, and seminal and cervical fluids of a person with infection. This type of transmission is very rare in child care and school settings. Diseases such as hepatitis B, hepatitis C, and human immunodeficiency virus (HIV) can be spread by contact with infected blood. Infected children can possibly transmit these infections through biting if there is visible blood mixed with their saliva (i.e., from bleeding gums). CMV (cytomegalovirus) can be spread by body secretions like urine and saliva, and mononucleosis and some forms of bacterial meningitis can be spread by saliva.

Sexually-transmitted infections (STI)

These infectionss are most commonly transmitted by sexual contact, including genital-to-genital, oral-to-genital, or genital-to-anal contact. HIV and AIDS, chlamydia, genital herpes, genital warts, gonorrhea, hepatitis B, pubic lice (crabs), and syphilis can be spread in this way. The possibility of sexual abuse must be considered when infections

occur in prepubescent children and must be reported to appropriate authorities. The Colorado Child Abuse and Neglect Hotline for reporting possible abuse or neglect is 844-CO-4-KIDS (844-264-5437).

Appropriate antibiotic use

Antibiotics are important drugs that treat infections caused by bacteria. Antibiotics save lives, but they can also be harmful if prescribed when not needed. Harms include side effects and the development of antibiotic resistant bacteria. Prescribers should seek to prescribe antibiotics only when indicated, choose the most appropriate antibiotic for the job, and use the shortest effective duration of antibiotic therapy. Unfortunately, about half of outpatient antibiotic prescriptions are inappropriate, and about one-third are unnecessary. Here are some tips for appropriate antibiotic use:

- Antibiotics do NOT treat viruses, like those that cause colds, flu, or COVID-19.
- Antibiotics are only needed for treating certain infections caused by bacteria, but even some bacterial infections get better without antibiotics. Antibiotics aren't needed for many sinus infections and some ear infections.
- An antibiotic will not make a person feel better if they have a virus. Respiratory viruses usually go away in a week or two without treatment. Parents/guardians should be advised to talk with their child's health care provider about the best way to feel better while their body fights off the virus.
- Taking antibiotics can create resistant bacteria. Antibiotic resistance occurs when bacteria develop the ability to defeat the drugs designed to kill them.
- If a person needs antibiotics, they need to take them exactly as prescribed.
- Parents/guardians should talk with their child's doctor if the child develops any side effects, especially diarrhea, since that could be a *C. difficile* (C. diff) infection which needs to be treated right away.
- Antibiotics aren't always the answer. Everyone can help improve antibiotic prescribing and use.

CDC has handouts, posters, prescription pads, communication strategies, and other educational resources for parents/guardians and health care providers: Antibiotic Use | CDC.

Disease prevention: Hand hygiene

Hand hygiene is one of the best tools for controlling the spread of infections. All children and staff should perform effective hand hygiene, which will reduce the amount of illness in child care and school settings.

Hand hygiene with soap and water:

- Use SOAP and WARM RUNNING WATER.
- Rub hands vigorously as you wash them.
- Wash ALL surfaces including the backs of hands, wrists, in-between fingers, and under fingernails.
- Wash for at least 20 seconds.
- Rinse hands well.
- Dry hands with a paper towel or air dryer.
- If using paper towels, turn off the water using a paper towel instead of bare hands.
- If cloth towels are used, they must be laundered after each use.

State health regulations for schools require that soap and paper towels or air dryers be available for all bathroom facilities. Schools often have a problem keeping the restrooms stocked with soap and paper towels due to children playing with the items and clogging toilets or making messes. Schools must find solutions to these problems rather than removing soap and paper towels from the restrooms.

When to wash hands:

- Before, during, and after preparing or serving food to children.
- Before eating (children in child care settings must also wash their hands after eating).
- Before and after caring for someone who is sick.
- Before and after administering medication.
- Before and after caring for a cut or wound.
- Before and after handling or playing on a sensory table.
- After coughing, sneezing, and/or wiping your nose or someone else's nose.
- After using the toilet.
- After changing diapers (wash both the staff person's and child's hands).
- Before and after administering first aid.

- After cleaning.
- After touching an animal, animal feed, or animal waste.
- After handling pet food or treats, or touching an animal's cage or enclosure.
- After handling garbage.
- Whenever hands are visibly dirty.
- Children who are unable to wash their hands should have assistance from staff.
- Food handlers are required to wash hands before preparing and handling food and when hands are soiled.

Hand hygiene with soap and water:

Hand sanitizer

Alcohol-based hand gels can quickly reduce the amount of germs on hands in some situations. Hand gels do not eliminate all types of germs and are not as effective when hands are visibly dirty or greasy. Children should be supervised when using these products and they should only be used on children aged 3 and older. The rules and regulations governing both schools and child care prohibit the use of hand sanitizer in lieu of handwashing. It is recommended that these products be used in addition to regular handwashing and only used as the main method of handwashing when facilities are not readily available, such as on a field trip.

Disease prevention: Immunizations/vaccines

Childhood immunizations

Immunizations help prevent serious illnesses. Colorado law (Board of Health rule 6 CCR 1009-2) requires all children attending Colorado licensed child cares and schools to be up to date on all required immunizations or have a valid exemption (either a medical or nonmedical exemption) on file. Medical exemptions require CDPHE's Certificate of medical exemption and must be signed by a medical doctor (MD), doctor of osteopathy (DO), physician assistant (PA), or advance practice nurse (APN) and need only be submitted once, unless the student's information or school changes. There are two ways to submit a nonmedical exemption.

- Submit CDPHE's Certificate of nonmedical exemption with a signature from an immunizing provider in Colorado who is a medical doctor (MD), doctor of osteopathy (DO), physician assistant (PA), advance practice nurse (APN), registered nurse (RN) or pharmacist, or;
- Submit the Certificate of nonmedical exemption received upon the completion of CDPHE's Online Immunization Education Module. A nonmedical exemption must be submitted annually for children in grades K-12 (they expire June 30 each year) and at 2, 4, 6, 12 and 18 months of age for children in child care/preschool. Nonmedical exemptions for child care/preschool-aged children expire when the next vaccines are due or when the child enrolls in kindergarten. Find additional information about vaccine exemptions on our website.

Required immunizations for school-aged children in grades K-12 include: DTaP (if younger than 7 years of age), Tdap (diphtheria, tetanus, whooping cough (pertussis) required for sixth grade entry, IPV (polio), MMR (measles, mumps, rubella), HBV (hepatitis B), and Varicella (chickenpox). Required immunizations for attendance at licensed child cares include those listed above for school-aged children plus Hib (*Haemophilus influenzae* type B) and PCV13 (pneumococcal disease).

Vaccines for hepatitis A, rotavirus, influenza, meningococcal, human papillomavirus, COVID-19, and RSV (for age-eligible children) are recommended, but not required for school attendance. School and child care facilities are required to document immunization dates on the Certificate of Immunization (CI) for all vaccinated children. The CI is to be kept on file either electronically or in hard-copy format. Information on immunization requirements and forms can be found on the CDPHE school-required vaccines webpage.

Adult immunizations
It is strongly recommended that child care and school personnel be vaccinated (or have proof of immunity) against pertussis, diphtheria, tetanus, mumps, measles, rubella, polio, chickenpox (varicella), Hepatitis A, influenza, and COVID-19. It is especially important for people of childbearing age to be immune to rubella as this infection can cause complications for the developing fetus. Pregnant child care and school personnel who work with young children should tell their physicians they work in these settings. Staff who work in child care and school settings should follow ACIP recommendations for protection against vaccine-preventable diseases. Child care and school personnel who are exposed to a vaccine-preventable illness, or who work in a setting experiencing an outbreak of vaccine-preventable illness may be excluded from work if they lack proof of immunity (e.g., documented vaccination or an antibody titer indicating immunity).

Disease prevention: Covering coughs

Influenza and other respiratory illnesses can be spread by coughing, sneezing, or unclean hands. To help prevent the spread of these illnesses, children and staff should try to use proper cough etiquette, including:

- Cover your mouth and nose with a tissue when you cough or sneeze.
- Put used tissues into the trash.
- If a tissue is not available, cough or sneeze into your upper sleeve or elbow, instead of the hands.
- Wash your hands often using proper technique.

Educational materials on cough etiquette for school and child care settings can be found on CDC's Influenza webpage.

Disease prevention: Food safety

Foodborne illness can often be prevented by adhering to the following safe food handling guidelines:

- Train all food handling staff on food safety.
- Children and staff handling food must wash their hands prior to handling food. A sink dedicated to handwashing must be used; sinks intended for food preparation must not be used for handwashing unless approved by CDPHE or the local health department.
- Ready-to-eat foods like salads, sandwiches, and fruit (basically any food that is not going to be cooked prior to consumption) must not be prepared or handled with bare hands. Gloves are required when handling ready-to-eat foods.
- Ill children and staff must not handle food, especially if they are ill with gastrointestinal symptoms, such as vomiting or diarrhea.
- Children or staff with skin lesions on exposed areas like the face, hands, and fingers must not handle food unless the wound is covered with a waterproof bandage and gloves are worn for all food handling activities.
- Store food at proper temperatures. Potentially hazardous cold foods like eggs, milk, dairy products, meat products, etc. must be stored at 41°F or below. Hot foods must be held at 135°F or above.

- Meat and poultry products must be cooked to the proper temperature. Ground beef must be cooked to an internal temperature of 155˚F. Poultry must be cooked to 165˚F. A complete list of cook temperatures and other food safety resources can be found here.
- The facility must have a calibrated thermometer to check food temperatures.
- Thaw food in an appropriate manner, such as in the refrigerator, under continuously running cold water in a continuously draining sink, or in the microwave immediately before serving or cooking.
- Raw meat and poultry must be stored on the bottom shelf of the refrigerator to prevent contamination of other food items.
- Thoroughly wash fresh produce in a clean and sanitized food preparation sink before preparation. This includes fruits with a peel, such as cantaloupe, watermelon, and avocado prior to cutting.
- Use an approved food contact surface sanitizer on all food contact surfaces. Have a test kit on-hand to check the sanitizer concentration to ensure it is at proper levels, unless it is manufactured as a ready-to-use product.
- Avoid cross-contamination by washing hands, cutting boards, utensils, and dishes between different foods. Sanitize cutting boards, utensils, and dishes with an EPA-approved sanitizer after washing.
- Use separate cutting boards for produce and raw meats/poultry.
- All food products must be stored away from medications, first aid supplies, cleaning products, and other chemicals.
- Do NOT serve unpasteurized products such as milk, cheese, other dairy products, or juice in the facility.
- For regulations covering infant feeding (hygienic practices, food storage, handling bottles, and solid food), please reference Section 7.12 in the Colorado "Rules and Regulations Governing the Health and Sanitation of Child Care Facilities in the State of Colorado."

For additional information on food safety, please consult with the state or local public health agency.

Disease prevention: Facility environment

Keep age groups separate
Separating children by age groups, particularly in child care facilities, helps to prevent the spread of infections to other groups of children and staff; ill children who are being sent home should also be separated from other children.

Meal times
Only authorized food handlers should enter kitchen areas to avoid contamination and transmission of disease. Children should not share food, plates, or utensils. Tabletops should be cleaned and sanitized before meals and between different groups of children using the tables. For child care facilities, use a separate utensil for each baby. For meals served family style, clean utensils should be provided for each dish. Children should be supervised while serving themselves to assure they are using utensils to prevent contamination of food. If food does become contaminated, it must be discarded. Each family style serving dish should be clean and sanitized before it is filled or refilled. This means serving dishes returned to the kitchen for seconds should be washed, and a new serving should be served on clean, new plates. During an outbreak of communicable disease, facilities may be required to cease family style meal service.

Nap times (for child care facilities)
Children should be provided with their own crib (for infants), or cot or mat (for older children). If this is not possible, they should be provided with their own set of mattress covers and linens (linens should be laundered weekly, if possible). Mattresses and mats or cots must be cleaned and sanitized between use by different children.

Cleaning, sanitizing, and disinfecting
Cleaning, sanitizing, and disinfecting surfaces in school and child care settings will help prevent transmission of infectious diseases. These terms all have different meanings and involve different types and concentrations of chemicals/solutions.

- **Cleaning** removes visible soil and debris and is done before sanitizing or disinfecting. Cleaning solutions are typically detergent and water.
- **Sanitizing** kills 99.9% of microorganisms on a surface, so it is unlikely that people having contact with a sanitized surface would be exposed to disease-causing organisms. Unscented household chlorine bleach mixed with water is a common sanitizing solution, although other chemicals are available. Generally, a bleach solution made at a concentration of 50 to 200 parts per million is sufficient for routinely sanitizing surfaces that are not visibly soiled and is not toxic to humans. Because several different bleach concentrations are available for purchase, follow the mixing instructions for sanitizing on the specific bottle of bleach used. The solution must be tested when it is made to assure proper concentration. The solution must be tested daily if it is not discarded at the end of the day. If a school or child care center is using a sanitizer other than a bleach solution, staff should check with their local

public health agency to ensure the chemical meets regulatory requirements. All sanitizing solutions should be stored in a labeled container out of the reach of children. The label must indicate what it is and for what it is intended (ex. Bleach water for tables and toys).

- In classrooms with young children, toys must be washed, rinsed, and sanitized regularly. Toys that are soiled or placed in a child's mouth must be washed, rinsed, and sanitized prior to use by another child. Toys used with infants and toddlers must be washed, rinsed, and sanitized daily. Toys used with preschool and older children must be washed, rinsed, and sanitized weekly or more often, if needed. Common areas, desks/tables, doorknobs and handles, faucet handles, toilet seats, and drinking fountains are examples of areas that should be kept clean and periodically sanitized.
- **Disinfecting** kills nearly 100% of microorganisms on a surface, so it is very unlikely that people having contact with a disinfected surface would be exposed to disease-causing organisms. Unscented household chlorine bleach mixed with water (at higher concentrations than used for sanitizing solutions) is also commonly used as a disinfectant, although other chemicals are available. Use disinfectants according to the label on the product or EPA registration. A list of approved disinfectants can be found on our child care health regulations webpage. In an outbreak situation, public health may recommend using an even stronger bleach solution for disinfecting surfaces, depending on the organism causing the outbreak. If a school or child care center is using a disinfectant other than a bleach solution or one that is on the approved disinfectant list, staff should check with their local public health agency to ensure the chemical meets regulatory requirements. If a surface is contaminated with a bodily fluid or excretion like blood, vomit, or feces (such as on a diaper changing table), a disinfectant must be used following cleaning to ensure disease-causing organisms are destroyed. Toys or items that can be placed in a child's mouth should be washed, rinsed, and sanitized after disinfection.

Soft furnishings and linens can be sanitized or disinfected through the use of a washing machine and dryer. This can be achieved by washing items in 140˚F water, adding bleach or another laundry disinfectant in the rinse cycle, or by drying at a temperature of 140˚F or greater.

Cleaning, sanitizing, and disinfection recommendations

The following table outlines recommendations for cleaning, sanitizing, and disinfecting for routine and special purposes. Note that there are different recommendations based on the chemical that is used for sanitizing or disinfecting.

	If using bleach as a sanitizer/disinfectant* (Bleach solutions should not be stored for more than a day or two because the concentration declines with time.)	**If using commercial sanitizing/disinfecting products**
Routine cleaning and sanitizing of surfaces *(Examples: Normal use for door knobs, faucets, high-touch surfaces, spilled food products)*	1. Wash with detergent. 2. Rinse with water. 3. Use a bleach solution made at a concentration of 50 to 200 parts per million with a contact time of two minutes (follow the mixing instructions for sanitizing on the specific bottle of bleach used).	1. Wash with detergent. 2. Rinse with water. 3. Use a sanitizing product, according to label instructions. Products labeled as cleaner and sanitizer may not require separate wash and rise steps. Follow label instructions.
Routine disinfection of diaper changing surfaces	Disinfect changing surface between children (see Diaper Changing)	
Cleaning and disinfection of surfaces *visibly* soiled with *bodily fluids* *(Examples: diaper changing surface, toilets)* **Note**: Treat urine, stool, vomit, blood, and other bodily fluids, except for human milk, as potentially infectious.	1. Wear disposable gloves to avoid direct contact with bodily fluids. 2. Wash with detergent*. 3. Rinse with water*. 4. Use a bleach solution made at a concentration and contact time labeled for disinfection (follow the mixing instructions for disinfection on	1. Wear disposable gloves to avoid direct contact with bodily fluids. 2. Wash with detergent*. 3. Rinse with water*. 4. Use disinfection product according to label instructions. *Washing and rinsing are only required if the surface is visibly soiled.

	If using bleach as a sanitizer/disinfectant* (Bleach solutions should not be stored for more than a day or two because the concentration declines with time.)	If using commercial sanitizing/disinfecting products
	the specific bottle of bleach used). *Washing and rinsing are only required if the surface is visibly soiled.	*Products labeled as cleaner and disinfectant may not require separate wash and rinse steps. Follow label instructions.
Cleaning and disinfection of surfaces *visibly* soiled with bodily fluids *where illness due to viral gastroenteritis* (including norovirus) *is suspected* *(Examples: fecal or vomit accidents)*	1. Clear the area and limit access to the room until the area is disinfected. 2. Any uncovered food items or single-service items (drinking straws, takeout containers, paper napkins, paper plates, etc.) that may have been in the vicinity where the vomit or fecal accident occurred should be immediately discarded. 3. Wear disposable gloves, mask, and gown or coverall to avoid direct contact with fecal material or vomit and any potentially contaminated surface. Safety glasses can be worn, as well. 4. Spray the area and all organic material with 5000+ ppm bleach (one cup of bleach and 10 cups of water) to reduce the chance of aerosolization during cleanup. 5. Use paper towels, rags, or other body fluid absorbent products (use according to label instructions) to remove the bulk of organic material. 6. Wash with detergent. 7. Rinse with water. 8. Disinfect using a solution of 5000+ ppm bleach with a contact time of at least one minute. 9. Open the room to outside air at least until the odor of the disinfectant has gone away. Special considerations for food contact surfaces (tables, kitchen counters, food preparation areas, etc.) and items that could potentially be placed in peoples' mouths (kitchen utensils, toys, or other surfaces in a child care setting, etc.): *The surface/item should be washed with detergent, rinsed off with clean water, and sanitized **after** disinfection.*	**It is recommended that the disinfectant used be effective against norovirus.Norovirus is a common cause of sudden onset of vomiting and diarrhea. Quaternary ammonia solutions may not be effective against norovirus; if used, be sure to check the product label to ensure it is effective against norovirus. A list of disinfectants effective against norovirus can be found at the Environmental Protection Agency's website.** 1. Clear the area and limit access to the room until the area is disinfected. 2. Any uncovered food items or single-service items (drinking straws, takeout containers, paper napkins, paper plates, etc.) that may have been in the vicinity where the vomit or fecal accident occurred should be immediately discarded. 3. Wear disposable gloves, mask, and gown or coverall to avoid direct contact with fecal material or vomit, and any potentially contaminated surface. Safety glasses can be worn, as well. 4. Spray the area and all organic material with disinfecting product to reduce the chance of aerosolization during cleanup. 5. Use paper towels, rags, or other body fluid absorbent products (use according to label instructions) to remove the bulk of organic material. 6. Wash with detergent. 7. Rinse with water. 8. Use disinfection product according to label instructions. 9. Open the room to outside air at least until the odor of the disinfectant has gone away. Special considerations for food contact

	If using bleach as a sanitizer/disinfectant* (Bleach solutions should not be stored for more than a day or two because the concentration declines with time.)	If using commercial sanitizing/disinfecting products
		surfaces (tables, kitchen counters, food preparation areas, etc.) and items that could potentially be placed in peoples' mouths (kitchen utensils, toys, or other surfaces in a child care setting, etc.): *The surface/item should be washed with detergent, rinsed off with clean water, and sanitized after disinfection unless the product is labeled as safe for food contact surfaces.*
Cleaning, sanitizing, and disinfecting linens, clothing, and other items that can be laundered	1. Launder items in hottest water setting with detergent. 2. Dry items in a hot dryer (140°F). If items are contaminated by a fecal or vomit accident, use bleach to disinfect during wash if temperature is <140°F. Launder contaminated items separately to reduce the potential for spreading contamination.	1. Launder items in hottest water setting with detergent. 2. Dry items in a hot dryer (140°F). If items are contaminated by a fecal or vomit accident, use a laundry disinfectant product during wash if temperature is <140°F. **It is recommended that the disinfectant used be effective against norovirus. Norovirus is a common cause of sudden onset of vomiting and diarrhea. Quaternary ammonia solutions may not be effective against norovirus; if used, be sure to check the product label to ensure it is effective against norovirus. A list of disinfectants effective against norovirus can be found at the Environmental Protection Agency's website.** Launder contaminated items separately to reduce the potential for spreading contamination.
	– Soiled carpets and upholstery are very difficult to fully sanitize and disinfect. It may not be feasible to use the bleach solution if damage to the material will occur. If cleaning up these surfaces after a vomit or fecal accident, consider using a different disinfectant that is effective against norovirus that will not damage the material. – Steam cleaning these types of surfaces after cleaning up the vomit or fecal material can be helpful. – Air dry rugs and furniture in the sunlight after attempted disinfection and steam cleaning.	

Diaper changing

Infections that are transmitted by the fecal→oral route can be spread by poor diaper changing procedures. To avoid this, always use the following method for changing diapers (note: the black text in the images below is required by the regulations; the orange text offers additional steps that can be taken):

Get Prepared

- Gather all necessary supplies (a clean diaper, clean clothes, plastic bags, wipes, diaper cream, and gloves).
- Put on clean gloves.
- **If using ointment, put a small amount onto a clean paper towel to prevent contamination of the container.** (A clean glove must be worn to apply ointments.)

Remove soiled diaper

- Place the child on a clean and dry changing table or mat.
- Remove the soiled diaper and clean the child. If needed, place soiled clothing in a plastic bag to be sent home with the child.
- Place the soiled diaper and used supplies in a **hands-free** plastic lined trash can with a lid, and remove gloves.
- **Clean yours and the child's hands with a clean wipe (one wipe for your hands, one wipe for child's hands).**

Dress the child and wash their hands

- Put a clean diaper on the child. Dress the child.
- Wash young children's hands with warm, running water and soap (wet hands, lather outside the stream of water for 20 seconds, rinse with warm running water, and dry with a single-use towel), OR
- Supervise older children and provide assistance, as needed, as they wash their hands.

Disinfect the diapering area and wash your hands

- **Wash the diapering area with soap and rinse with water. If using a flat mat, wash and disinfect both sides.**
- Disinfect the diapering area by following the instructions on the disinfectant label.
- Wash your hands with soap and warm, running water (see hand washing steps above).

CDPHE DEHS Diapering Procedure poster (April 2019) in English | Spanish

Toilet-training children

It is recommended that facilities place soiled clothes in a plastic bag for parents/guardians/caregivers to take home at the end of the day. Parents should supply a clean change of clothes to the facility ahead of time in case of accidents.

After helping children use the toilet, show them how to wash their hands. The use of potty chairs in child care facilities is not permitted.

Animals / pets at child care and school settings

Animals in the classroom can be beneficial in the education process. However, some animals can present potential health and safety risks to humans, including infectious disease transmission, bites, and allergies. For example, many animals, especially reptiles and live poultry like chicks and ducklings, shed *Salmonella* bacteria in their feces without being sick themselves. People can contaminate their hands with feces when they handle the animal, feed the animal, or clean up after the animal (such as cleaning the cage or other enclosure), and disease can spread through the fecal→oral route. Some animals are not appropriate for the classroom, such as: poisonous animals (like poisonous/venomous spiders, snakes, and insects); wild, stray, or aggressive animals; or animals from an unknown source. To minimize the risk of children and staff acquiring an infectious disease from an animal or from being bitten, simple precautions should be taken, as outlined below:

General information:

- Children (especially those aged 5 years and younger) must be supervised carefully when around animals and animal enclosures, especially if children are handling animals.
- Reptiles, amphibians, and live poultry (e.g., chicks and ducklings) are prohibited in classrooms and facilities with children who are kindergarten age or younger (younger than 5 years). This includes hatching eggs in an incubator.
- Inform parents/guardians of animals that are kept onsite or may be visiting the facility.
- Animal cages or enclosures must be kept clean and in good repair. Do not clean animal cages or enclosures in sinks or other areas used to prepare food and drink or used for handwashing. Children aged 5 years and younger must not clean enclosures.
- Children and staff must always wash their hands with soap and running water after any contact with animals, their cages or enclosures, or their food, and after visiting places with animals, such as zoos or farms.
- Children must never “kiss” animals or have them in contact with their faces.
- Do not allow animals to roam free in the facility.
- Do not allow animals in areas where food and drinks are prepared or consumed.
- Clean and disinfect all areas where animals have been present.
- Animals kept onsite must receive regular veterinary care and must be up to date on all recommended animal vaccinations.

School settings (K-12):

- If children older than 5 years of age assist in cleaning the cage or enclosure, they must be supervised and should wash their hands with soap and running water afterwards.
- Live poultry (e.g., chicks and ducklings), reptiles, and amphibians are prohibited from classrooms with children kindergarten age or younger or communal areas that these children use. Because infections from these animals spread via fecal→oral transmission (hand-to-mouth behaviors), having these animals in other classrooms where children engage in frequent hand-to-mouth behaviors is discouraged.

Child care and preschool settings:

- Live poultry (e.g., chicks and ducklings), reptiles and amphibians are **prohibited** in child care and school settings where children are kindergarten age and younger (younger than 5 years of age). This includes hatching eggs from an incubator.
- In facilities that also have kids kindergarten age and older (older than age 5), live poultry (e.g., chicks and ducklings), reptiles, and amphibians are prohibited from classrooms with children kindergarten age or younger or communal areas that these children use. This includes hatching eggs from an incubator. Because infections from these animals spread via fecal→oral transmission (hand-to-mouth behaviors), having these animals in other classrooms where children engage in frequent hand-to-mouth behaviors is discouraged.
- The following animals are also prohibited in all child care facilities: psittacine birds, ferrets, primates, poisonous fish, poisonous reptiles, poisonous amphibians, aggressive animals and fish, wild-caught animals, or any other animals which may pose a hazard to the health of the children.
- Children in child care settings can not assist in cleaning cages or enclosures.
- Exposure to farm animals such as goats, sheep, or cows is strongly discouraged in child care settings where children aged 5 years and younger are present due to the potential risk for disease transmission.
- Mobile petting zoos and other events where the public can interact with live animals are strongly discouraged from visiting child care settings where children aged 5 years and younger are present due to the potential risk for

disease transmission. There is an exception for programs that are AZA accredited. More information can be found here.

"Compendium of Measures to Prevent Disease Associated with Animals in Public Settings" from the National Association of State Public Health Veterinarians provides recommendations for controlling disease and minimizing health risks associated with animal contact in a variety of settings. CDC also has information about the health risks of a variety of animals.

Resources

The following resources may be helpful when dealing with infectious disease issues in school and child care settings:

American Academy of Pediatrics (AAP)

Bloodborne Pathogens: Contact CDPHE at 303-692-2700

CDC

Children's Hospital Colorado - Denver (School Health Program: 303-281-2790)

Colorado Department of Education (CDE) (School Nursing and Health Consultant: 303-866-6779)

Colorado Department of Public Health and Environment (CDPHE) (Main Phone: 303-692-2000 or 800-866-7689)

CDPHE Child and Adolescent Health

CDPHE Communicable Disease Branch (Main Phone: 303-692-2700 or after hours 303-370-9395 for urgent situations)

CDPHE Hepatitis Program (Main Phone: 303-692-2700)

CDPHE Immunization Program (Main Phone: 303-692-2700)

CDPHE Sexually Transmitted Infections Office (Main Phone: 303-692-2700)

CDPHE Tuberculosis Program (Main Phone: 303-692-2700 or TB Program Direct Line: 303-692-2750)

Healthy Child Care Colorado (Main Phone: 303-339-6800)

Local public health departments and/or environmental health services

Rocky Mountain Poison and Drug Center (Main Phone: 800-222-1222)

Publications

"The Red Book," published by the American Academy of Pediatrics

"Control of Communicable Diseases Manual," published by the American Public Health Association

"Managing Infectious Diseases in Child Care and Schools," published by the American Academy of Pediatrics

Animal bites/rabies

What is an animal bite/rabies?
Animal bites, especially dog and cat bites, occur frequently. Animal bites that break the skin should be evaluated by a health care professional to assess the risk of bacterial infection or transmission of rabies. Rabies is a fatal viral infection that affects the nervous system of humans and other mammals. Once symptoms have begun, the virus is shed in the saliva of the infected mammal. The few people who die of rabies each year in the U.S. are usually infected either by a bat bite or after an animal bite that occurred during international travel. As of 2021, the last human case of rabies in Colorado was in 1931. The majority of animal rabies cases in the U.S. occur in four wild animal species: raccoons, skunks, bats, and foxes. Rabies in domestic animals (like cats and dogs) occurs each year in Colorado, particularly in the eastern part of the state where skunk variant rabies is present. Rabies in rodents and lagomorphs (hamsters, guinea pigs, squirrels, and rabbits) is extremely rare. In Colorado, the primary reservoir animals for rabies are bats (throughout the state) and skunks (in the eastern part of the state).

Signs and symptoms of rabies in humans
- First signs may be flu-like, including weakness, fever, headache.
- Discomfort, prickling, itching at the site of the bite.
- Within days to weeks, such as central nervous system dysfunction (anxiety, confusion, agitation, delirium, abnormal behavior, hallucinations, insomnia).

Once a person begins to exhibit signs of the disease, survival is rare. To date, fewer than 10 documented cases of human survival from clinical rabies have been reported, and only two have not had a history of pre- or post-exposure prophylaxis.

Signs and symptoms of rabies in animals
Rabies virus causes acute encephalitis in all mammals, and the outcome is almost always fatal. The first symptoms of rabies may be nonspecific and may include lethargy, fever, vomiting, and anorexia. Signs progress within days to central nervous system dysfunction and may include cranial nerve dysfunction, trouble walking, weakness, paralysis, seizures, difficulty breathing, difficulty swallowing, excessive salivation, abnormal behavior, aggression, and/or self-mutilation. A bat may be unable to fly due to rabies causing weakness or paralysis of the wings. However, the only way to know if an animal has rabies is to test it.

Incubation Period
The incubation period for rabies is usually three to eight weeks (median of six weeks) and up to six years or more.

Rabies contagious period and spread
Rabies is transmitted through the saliva of infected mammals, most commonly through a bite. Transmission has been rarely documented via other routes, such as contamination of mucous membranes (i.e., eyes, nose, mouth), and corneal and organ transplantations. **Bat bite wounds may be unnoticeable upon examination** of skin, and children may not report contact with bats to an adult. The most likely way a child at a school or child care facility would be exposed to rabies is through unrecognized contact with a bat.

Public health reporting requirements
- Report all animal bite incidents or any contact with bats to the local animal control agency, local public health agency, or police department **within 24 hours**. Any bat found in a room or on the ground in a fenced yard with an unattended child should be tested for rabies - consult with your local public health agency for assistance with testing. The parents/guardians of a child bitten by an animal or found unattended with a bat must be notified.
- Occasionally children are found touching or playing with live or dead bats. If this occurs, the local or state public health agency must be notified immediately, and the bat must be tested for rabies.

Control of spread
- Teach children not to approach, attempt to pet, handle, or feed strange or wild animals.
- Any school or child care facility with a bat colony on the premises should take steps to reduce the chance of contact between children and bats.
- All dogs, cats, and ferrets should be vaccinated against rabies by a licensed veterinarian.
- A dog, cat, or ferret involved in a human bite must be observed for 10 days following the bite. The local animal control agency or police/sheriff department usually enforces this observation period. If the animal is still alive 10 days after the bite, there is no chance rabies virus was in the saliva of the animal at the time of the bite. This

observation period only applies to domestic dogs, cats, and ferrets. There is no established observation period for domestic-wild hybrids (such as wolf-hybrid dogs) or any wild mammal.

Treatment

Any child with an animal bite or contact with a bat should receive medical attention. Animal bite treatment includes thorough cleaning of the wound and tetanus prophylaxis, if appropriate. Occasionally, antibiotics are prescribed to treat bacterial infections. Bite sites that develop redness, swelling, drainage, or pain should be reevaluated by a health professional. There is no treatment for rabies after symptoms begin. Rabies vaccine provides immunity when administered appropriately after an exposure. The treating health care provider and local or state public health agency will evaluate each bite incident to determine if rabies vaccine should be given. Rabies post-exposure vaccination for humans is a series of four or five rabies vaccinations over two - four weeks, and one dose of human rabies immunoglobulin given as soon as possible after the exposure. This series of vaccinations and wound care usually must be initiated in the ER of a hospital or an urgent care setting. In general, public health assumes that skunks, raccoons, foxes, and bats have rabies until proven otherwise. In Colorado, dog and cat bites usually do not require rabies vaccine prophylaxis.

Exclusion

Exclusion of a student or child involved in an animal bite or bat contact is NOT necessary.

Role of teachers, caregivers, and family

- Provide immediate first-aid by washing the bite area thoroughly and applying a cold compress to any bruised area, and have the wound evaluated by a health professional.
- The biting animal should be captured or confined, if it is safe to do so. If the animal can not be contained safely, note the size, appearance, distinguishing features, and report immediately to animal control or local public health.
- Teach children to never feed or touch wild animals or domestic animals unknown to them and avoid any contact with stray, wild, or dead animals and to report any bats to an adult.
- Supervise all contact between children and animals.
- Maintain the health of any pet animal in a child’s environment by ensuring they are fully immunized and on recommended parasite control programs.

Resources

Animal bites/rabies exposure | Fact sheets and letter templates (CDPHE)

Bacterial meningitis

What is bacterial meningitis?
Bacterial meningitis is an inflammation of the tissues surrounding the brain and spinal cord and is a medical emergency caused by any of several types of bacteria (e.g. meningococcal, pneumococcal, and *Haemophilus influenza*e). A person's blood may also be infected with the bacteria. Some people may carry these bacteria in their nose and/or throat and have no symptoms of disease.

Signs and symptoms

- High fever
- Severe headache
- Stiff neck
- Sleepiness
- Nausea/vomiting
- Loss of appetite
- Being disoriented, irritable, or confused
- Eyes sensitive to light

Incubation period
Meningococcal: one-10 days (usually less than four days)
Haemophilus influenzae (*H. flu*): unknown (probably a few days)
Pneumococcal: as short as one - three days

Contagious period and spread
Cases can be contagious until completing 24 hours of antibiotic treatment.

Bacteria that cause meningitis can be spread by direct contact with saliva or nose/throat discharges of a person with infection. Infected individuals who do not have symptoms can still pass the bacteria to others.

Public health reporting requirements

- For meningococcal disease, report the infection to the state or local public health agency by phone immediately (within four hours) of a suspected or confirmed diagnosis.
- Report *H. flu* to public health within one working day.
- For pneumococcal, report the infection to the state or local public health agency within four days of diagnosis.
- Contact your state or local public health agency for assistance if the school or child care facility plans to notify parents/guardians about a case of meningitis in the facility.

Control of spread

- *Haemophilus influenzae* type B (Hib) and pneumococcal vaccines are routinely given to children starting at age 2 months. Meningococcal vaccine is routinely given to pre-teens and college students.
- The Colorado School Immunization Rules require children in child care or preschool to have *Haemophilus influenzae* serotype b(Hib) vaccine and pneumococcal vaccine starting at 4 months of age or an appropriate vaccination exemption.
- Teach children to cover coughs and sneezes with a tissue or with an upper sleeve or elbow if no tissue is available, wash their hands after using facial tissues or having contact with mucus, and dispose of tissues that contain nasal secretions after each use. Use good hand hygiene techniques at all times.
- Preventive antibiotics
    - For meningococcal infections, close contacts (such as household members, romantic partners, and child care classroom contacts) should receive a preventive antibiotic. School classmates, teachers, and personnel do not routinely require a preventative antibiotic, unless they had prolonged exposure beyond the classroom.
    - For *H. flu* serotype B (Hib) infections, preventive antibiotics may be recommended for household and child care contacts in certain situations. Typically, the state or local public health agency will notify household contacts if a preventive antibiotic is needed.

Treatment
Suspect cases of meningitis should be referred to a health care provider. Cases of bacterial meningitis and bloodstream infections often require hospitalization and treatment with antibiotics.

Exclusion

- Exclude infected students/children and staff until at least 24 hours after treatment with appropriate antibiotics.

- Readmit the child once cleared to return by a health professional AND when the child is able to participate and the staff members determine they can care for the child without compromising their ability to care for the other children in the group.

Role of teachers, caregivers, and family

- Encourage routine vaccination.
- Report the infection to the staff member designated by the child care program or school for decision-making and action related to the care of ill children.

Bed bugs

What are bed bugs?
Small insects that feed on humans. They are most active in the late night and can travel 10 to 15 feet to feed. Bed bugs can survive up to six months without feeding. The bites are itchy and often occur in a row on areas of the skin that are exposed during the night.

Signs and symptoms

Image: cdc.gov

- Itching
- Bites may have a red dot where the bite occurred in the middle of a raised red bump
- Specks of blood from crushed bugs or dung spots (pen point size) on bedsheets and mattresses
- Live bugs in crevices or seams of bedding and furniture

Incubation period
Bed bugs do not reproduce on humans like scabies or lice. After biting humans, they hide in crevices during the day. Bites are usually noted in the morning.

Image: aad.org

Contagious period and spread

- Children or staff members may bring bed bugs to school in bags and clothing.
- Bedbugs are not spread from one person to another and are not an indication that people or their homes are dirty.

Public health reporting requirements
The state health department does not respond to or investigate bed bug infestations as there is no evidence that bed bugs transmit disease. The presence of bed bugs in schools is not reportable.

Control of spread

- Schools and child care facilities should develop a bed bug plan to coordinate their response to the presence of bed bugs in the facility. Plan stakeholders should include at a minimum the school nurse, faculty, administrators, and facilities staff. It is important to formulate a response strategy before an infestation is suspected or identified. Schools and child care facilities dealing with bed bugs brought in by a student/child or staff member should make decisions beforehand about how to handle privacy issues, parent/guardian notifications, student/child or faculty exclusions from the school or facility, and bed bug treatment/eradication options. The introduction of bed bugs into the school environment is a complex issue and should be planned for appropriately.
- Resources for developing a bed bug response plan
  - Bed bugs Go to school
  - Bed bugs: What schools need to know
  - Recommendations for school nurses, teachers, and administrators on bed bugs

Treatment

- Avoid scratching bites to prevent infection. Fingernails should be kept clean to avoid damaging and infecting skin due to itching.
- Steroid skin creams or oral antihistamines may relieve itching.
- Children with bug bites are not infested and do not require treatment to prevent spread to others.

Exclusion
None

Role of teachers, caregivers, and family

- The presence of bed bugs in a child's home may be a significant stressor. Perceptions of social stigma and physical discomfort caused by bed bug bites can affect a child's ability to learn and perform in the school environment.
- People may or may not develop a bite reaction following bed bug bites. For those who develop itching, scratching of bites may lead to secondary infections.
- School nurses and child care health consultants may need to assess students/children who display persistent scratching for insect bites or the presence of lice. There are no characteristics of bed bug bites that are diagnostic of bed bugs. Insect bites, in general, appear similar to one another. A history of exposure and discussion with the student/child is often required to determine that the source of bites is bed bugs.

- The school or child care facility's bed bug response plan should identify resources for affected children (and faculty). This may include educational materials, social or environmental health services, or recommendations for the treatment of bed bugs. It is anticipated that recommendations and available resources will differ among school districts and child care programs.

Resources

Bed bugs | Fact sheets and letter templates (CDPHE)

Campylobacteriosis

What is campylobacteriosis?
Campylobacter infection causes an intestinal illness referred to as campylobacteriosis. Campylobacteriosis is the most commonly reported bacterial intestinal illness in the U.S. and while cases are reported year-round, infections are more common in the summer months. *Campylobacter* bacteria commonly live in poultry and cattle but can also be found in puppies, kittens, birds, and other animals.

Signs and symptoms

- Diarrhea (sometimes bloody)
- Low-grade fever
- Abdominal pain
- Malaise
- Nausea
- Vomiting (occasional)

Incubation Period
One to 10 days (usually two to five days)

Contagious period and spread
Campylobacter is spread through the fecal→oral route. People can become ill with *Campylobacter* by drinking contaminated water or unpasteurized milk, eating contaminated food (e.g., raw or undercooked poultry, raw milk products), or coming into contact with animals that are infected (including pets and farm animals). Transmission can occur from person to person, but this is not common.

People are contagious as long as they have *Campylobacter* bacteria in their stool, but they are most contagious while having diarrhea. The bacteria may be in the stool for a few days after symptoms have resolved.

Public health reporting requirements

- Campylobacteriosis cases are reportable to public health within four days of diagnosis.
- Staff who become aware of illness should report the infection to the facility director or the school nurse.
- If other children or staff are ill with diarrhea, refer them to their health care providers and contact public health as soon as possible as this could be an outbreak. Generally speaking, it is considered an outbreak if there is an increase in the number of ill children and/or staff members at the school or child care center.

Control of spread

- Please consult with local or state public health on implementation of control measures.
- Encourage and teach the importance of frequent handwashing, especially after animal contact, using the toilet, changing diapers, and before eating. Sample signs showing when and how to wash hands are included in the online "Fact sheets and letter template folder." Post them or similar signs throughout the child care center or school to remind people to wash their hands.
- Promptly sanitize contaminated surfaces (like diaper changing areas) and other commonly touched surfaces (like toys), and discard food or water if it is thought to be contaminated. (Disease Prevention: The Facility Environment)
- Refer to Disease Prevention: Food Safety for information on food safety.
- Alert possibly exposed family and staff members to watch for symptoms and provide them with prevention tips. See recommendations for caregivers and the family section below.

Treatment
Treatment with antibiotics shortens the duration of the illness and prevents relapse when given early in the infection. Antibiotic treatment is typically five to seven days, and usually eradicates the organism from the stool within two or three days.

Exclusion
Child care:

- EXCLUDE all infected children and/or caregivers until at least 24 hours after diarrhea has resolved.
- Ill children should not go to another facility during the period of exclusion.

Primary And secondary school:

- EXCLUDE all infected children experiencing symptoms and/or staff until at least 24 hours after diarrhea has resolved.

- In general, students or staff with campylobacteriosis who do not have diarrhea and are not otherwise sick may remain in school.
- In rare circumstances, public health may require additional testing before a person with infection can return to work, school, or child care.
- EXCLUDE affected individuals from food preparation until at least 24 hours after their diarrhea has resolved, or they are cleared by the state or local public health agency.

Role of teachers, caregivers, and Family

If your child or a child you care for is infected with *Campylobacter*, follow the advice of the child's health care provider.

Although person-to-person transmission is uncommon, it is important to practice good handwashing, especially after changing diapers, going to the bathroom/helping a child go to the bathroom, or handling food. Diapering, bathroom, and food preparation areas should be cleaned and disinfected frequently. It is also important to wash hands after touching pets or other animals as they can carry *Campylobacter*.

Keep food that will be eaten raw, such as vegetables, from becoming contaminated by raw animal-derived food products, thoroughly cook all food products from animals, especially poultry, and avoid consuming unpasteurized milk, or other unpasteurized products.

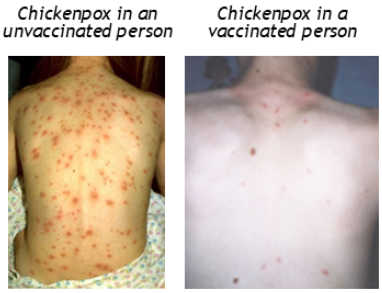
Resources:

Campylobacter | Fact sheets and letter templates

Chickenpox (Varicella) and Shingles (Herpes Zoster)

What is Chickenpox?
Chickenpox is a highly contagious viral illness. The virus remains inactive in the person's nerve cells after chickenpox resolves, and reactivation can occur later in life resulting in shingles. A vaccinated person may get chickenpox as a mild illness with fewer lesions that might not be blister-like.

Chickenpox: Signs and symptoms



Images: cdc.gov

- Rash (small red spots/bumps developing into small fluid-filled sacs over three to four days then forming scabs or "crusts")
- Crops of lesions appear over several days resulting in rash in various stages
- Rash may appear inside mouth, ears, genital areas, and scalp
- Fever, runny nose, cough
- Loss of appetite
- Headache
- Fatigue

Shingles: Signs and symptoms

Itchy or painful rash of red bumps or blisters, usually in a narrow area on one side of the body.


Image: aad.org

Incubation period
Incubation period ranges from 10-21 days (usually 14-16 days).

Contagious period and spread

- Chickenpox is spread through the air when a person with infection coughs and/or sneezes, or by direct contact with the rash of a person with infection.
- Direct contact with a shingles rash (prior to crusting) can cause chickenpox in people not immune to chickenpox.
- A person is contagious with chickenpox one- two days before the rash appears and until all the blisters have crusted over (usually five days after rash onset). A person with shingles is contagious until all blisters have scabbed or crusted over.

Public health reporting requirements

- Report cases of chickenpox to the state or local public health agency within four days of a suspected or confirmed diagnosis. Shingles does not need to be reported.
- Report outbreaks of chickenpox (>three cases in 21 days).
- A notification letter can be used to notify parents/guardians of exposed children. A sample letter to notify parents and additional information are available on the CDPHE varicella website.
- Notify those who might be pregnant or have a problem with their immune system to check with their health care providers.

Control of spread
Chickenpox (varicella) vaccines are routinely given to children starting at 12-15 months of age with a second dose at 4-6 years of age. The Colorado School Immunization Rules require children to have an age-appropriate dose of varicella vaccine for child care entry and two doses of varicella vaccination prior to school entry. However, a lab-confirmed history of varicella or an exemption to vaccination may be accepted.

- Varicella vaccine administered within three - five days of exposure may prevent the disease.
- Properly dispose of articles soiled with nose/throat discharges.
- Use good surface-sanitation technique and good hand-hygiene technique at all times.
- Exclusion of children who have been clinically diagnosed or who have a laboratory confirmed varicella test, until all vesicles have scabbed or crusted over (usually within six days after rash onset).

Treatment
Antiviral medication may be used for people at increased risk of severe disease. Consult with a doctor for treatment options.

If a medicine to lower temperature or reduce discomfort is necessary, acetaminophen-containing medicines (like Tylenol) are recommended. ASPIRIN SHOULD BE AVOIDED because it increases the risk of Reye's Syndrome, a serious disorder that can lead to coma and death.

Exclusion

- Exclude all children, students, and/or staff with chickenpox until all vesicles have scabbed or crusted over (usually within six days after rash onset). Immunized children with mild infection with no crusts can be readmitted once no new red bumps have appeared for at least 24 hours.
- People with shingles may attend school and child care if the rash is covered.

Role of teachers, caregivers, and family

- Encourage routine vaccination.
- Report the infection to the staff member designated by the child care program or school for decision-making and action related to the care of ill children. That person, in turn, alerts possibly exposed family and staff members and parents of unimmunized children to watch for symptoms and notifies the health consultant.

Resources

CDPHE - Chickenpox (varicella)

Chlamydia

What is Chlamydia?
Chlamydia trachomatis, a bacterium, causes chlamydia infection, which is the most frequent bacterial sexually-transmitted infection (STI) in the U.S. The majority of infections do not cause symptoms and are detected through screening tests. Symptoms of chlamydia, when present, are similar to those of gonorrhea. These two infections can present as co-infections in the same person and their partner(s).

Signs and symptoms
- Many people with infection do not have symptoms (asymptomatic).
- Females may have cervical discharge with swelling, redness, and bleeding. Complications can include pelvic inflammatory disease (PID), which can lead to ectopic pregnancy, infertility, and chronic pelvic pain.
- Males may have urethritis, characterized by a whitish or clear discharge, and painful or difficult urination. Complications can include epididymitis, infertility, and reactive arthritis (Reiter's syndrome).

Incubation period
Usually one to three weeks.

Contagious period and spread
- Spread through sexual contact: oral, anal, and vaginal.
- Individuals remain infectious for up to seven days after completion of treatment.

Public health reporting requirements
Chlamydia infections must be reported by laboratory and health care providers to the state or local public health agency within four days of a suspected or confirmed diagnosis.

The possibility of sexual abuse must be considered when infections occur in prepubescent children and must be reported to appropriate authorities.

Control of spread
- No exclusions or environmental interventions are necessary.STIs require close intimate physical contact for transmission, virtually always of a sexual nature.
- People with infection should be examined by a health care provider and treated as soon as the diagnosis is confirmed to prevent complications. Treatment of partner(s) is a crucial strategy to prevent reinfection. People with infection should seek medical care if symptoms persist or recur. Parental consent is not required for minors to be examined and treated.
- People with infection should avoid sexual activity until they and their partner(s) are treated and cured.
- People with infection should abstain from sex or use condoms to prevent future infections.
- General education on STI prevention is advocated.

Treatment
Treatment is with antibiotics. Concurrent treatment of sex partner(s) with same regimen is essential to prevent reinfection or spread of disease.

Exclusion
No exclusions or environmental interventions are necessary. STIs require close intimate physical contact for transmission, virtually always of a sexual nature.

Role of teachers, caregivers, and family
- General education about sexual health and STI prevention is recommended.
- Infections in prepubescent children and other high-risk individuals (those who cannot consent to sexual contact for any reason) must be reported to appropriate authorities to address the possibility of sexual abuse.

Resources
Chlamydia | CDC

Clostridium difficile (*C. difficile*)

What is *Clostridium difficile*?

Clostridium difficile (*C. difficile*) is a bacterial infection that can cause diarrhea. Symptoms can range from mild diarrheal illness to severe colitis and can result in death. *C. difficile* causes almost half a million illnesses per year. Most of these illnesses occur in adults and in people who have recent exposures to medical care and antibiotics. However, anyone, including children, can become ill from *C. difficile* under the right circumstances. The burden of *C. difficile* among pediatric patients appears to be much higher in community settings compared to hospital settings. There are two types of *C. difficile* bacteria, toxigenic and nontoxigenic. Only toxigenic *C. difficile* bacteria can cause symptoms. A person must also have an imbalance in their normal, healthy gut flora, which allows *C. difficile* to flourish and cause inflammation and damage to the gut. Normal, healthy gut flora can be disturbed for many reasons, but a major cause is previous exposure to antibiotics.

Signs and symptoms

- Watery diarrhea (typically at least three bowel movements per day for at least 24 hours)
- Fever
- Loss of appetite
- Nausea
- Abdominal pain and tenderness
- Rarely, severe illness can cause high fever, bloated abdomen and occasional blood in the stool
- Children aged 5 years and younger, especially infants, frequently have no symptoms

Incubation period

- Variable; symptoms typically develop five days after the exposure to an antibiotic. However, symptoms can occur anywhere between one day and 10 weeks or more.
- Some people will experience a recurrent infection which may occur after the initial episode of diarrhea has been treated and resolved. People who experience a relapse of diarrhea or have fever, chills, and/or abdominal pain should contact their doctor.
- Asymptomatic infants can carry the bacteria for an unknown period without becoming ill.

Contagious period and spread

- *C. difficile* is spread through the fecal→oral route and can occur when a person comes into contact with feces of children who are infected, or it can be spread person to person, including via the hands of staff in child care facilities and schools.
- People who are ill with *C. difficile* can shed the bacteria into the environment, causing surfaces to become contaminated. *C. difficile* can live on environmental surfaces for several months.
- Improper hand hygiene is a major contributor to the spread of *C. difficile*. Not everyone who ingests *C. difficile* bacteria will become ill.
- *C. difficile* can spread as long as the bacteria are in the stool. People are most likely to shed the bacteria when they have active diarrhea. The more frequent and uncontrolled the diarrhea is, the more likely they are to shed the bacteria.
- People who are being treated for *C. difficile* are less infectious than those who are not on treatment. A person is generally considered contagious until 48 hours after the last episode of diarrhea. However, it is not fully understood how long a person may continue to shed bacteria after diarrhea stops.

Public health reporting requirements

- *C. difficile* infections are laboratory reportable to the state health department for residents of the Denver metropolitan area (Adams, Arapahoe, Denver, Douglas, and Jefferson counties). Single cases outside of these five counties are not reportable.
- The school nurse or child care health consultant should be consulted for specific concerns, or consultation with state or local public health personnel is available.
- If other children or staff from the same classroom are ill with diarrhea, refer them to their health care providers and contact public health as soon as possible as this could be an outbreak, and all outbreaks are reportable to the state or local health departments.

Control of spread

- **Meticulous hand hygiene for staff and students/children**: Handwashing with soap and water is the most effective method to prevent the spread of *C. difficile*.

- Proper hand hygiene with soap and water is required, especially after using the bathroom, after changing a diaper, prior to preparing and eating meals, and anytime hands are visibly soiled.
- Alcohol-based hand sanitizer does not kill *C. difficile* spores.
- Glove use is required if contact with stool could occur, and hand hygiene must be performed with soap and water immediately following removal of gloves.

Environmental cleaning

- Gloves must be worn when cleaning areas contaminated with stool, and hand hygiene with soap and water are required immediately after glove removal.
- CDC recommends meticulous cleaning followed by disinfection using hypochlorite (bleach) based germicides of potentially contaminated surfaces and items.
- Surfaces that may be contaminated with stool (diaper changing areas and bathrooms) should be:
  - Cleaned with detergent and rinsed water to remove dirt and debris.
  - Disinfected by applying either (1) an EPA registered disinfectant from List K labeled effective against *C. difficile* spores according to label instructions for disinfection, OR (2) household bleach (follow the mixing and application instructions for disinfection on the specific bottle of bleach used). The recommendation is to achieve 5,000 ppm available hypochlorite (which is equivalent to 1:10 dilution of 5.25% bleach).

  ** Read labels carefully to ensure the bleach or other disinfectant product is applied correctly. Bleach or disinfectant products must be mixed and applied appropriately to ensure disinfection. **
- Soiled linen and clothing
  - Clothing, towels, and blankets that are soiled or potentially contaminated can be laundered in the hottest water safe for the item with normal detergent. Chlorine bleach should be used if safe for the item being laundered. Dry on high heat. Items with visible stool contamination should be rinsed well before washing.
  - Items that are contaminated with high hazard bodily fluids, such as stool, should be laundered separately.
  - Dry cleaning is not as effective as standard washing at killing spores. This option should only be used for items that cannot be machine washed.

Treatment

Typically antibiotics are prescribed for an initial episode, depending on disease severity and other factors. Some providers may choose to not treat an episode of *C. difficile* under certain circumstances. People with multiple recurrences or severe illness may be treated surgically.

Exclusion

- EXCLUDE students/children who have been diagnosed with *C. difficile* and have active diarrhea until: diapered children have their stool contained by the diaper, and when toileting children do not have toileting accidents and when stool frequency is no more than two stools above normal for that child, even if stools remain loose.
- In certain cases people might experience recurring or ongoing diarrheal illness with *C. difficile* infection. In these circumstances, the benefits and risks of having the student/child attend school or group care should be considered.
- Factors that should be considered in the decision to allow children with recurring/ongoing diarrheal illness with *C. difficile* infection include:
  - If the diarrhea is controlled, meaning the student or child is not having accidents and is able to go to the bathroom when needed, or if the student or child is in diapers, the diarrhea must be able to be contained in the diaper).
  - If the student/child is receiving treatment for the infection.
- CDPHE and your local public health department are available for consultation as needed.

Role of teachers, caregivers, and Family

- Bloody diarrhea may be a sign of *C. difficile* but many other pathogens do, as well. Any bloody diarrhea should trigger a medical evaluation.
- For known cases of *C. difficile*, ensure that the advice of the health care provider and public health are followed to prevent transmission.
- Educate and reeducate about the importance of meticulous hand hygiene using soap and water. *C. difficile* spores are not killed by alcohol-based hand sanitizers.

Resource
Prevent the Spread of *C. diff* (CDC)

Cytomegalovirus (CMV)

What is Cytomegalovirus?
Cytomegalovirus (CMV) infection is a viral infection most common in children aged 5 years and younger. Most infections cause no symptoms or mild symptoms, such as a low-grade fever. The disease can be more serious in people with impaired immune systems. The virus is a frequent cause of post-transplant and post-transfusion infections. Most people have been exposed to CMV by the time they are adults and are immune to it. Infants can be infected before they are born. A small percentage of these infants will develop illness, vision problems, hearing loss, or subsequent developmental delays, while most will not have symptoms and will be immune to subsequent infections.

Signs and symptoms
- Generally, no symptoms are present in young children
- Sudden onset of bloody diarrhea
- Abdominal cramps
- Little or no fever
- Vomiting and watery (non-bloody) diarrhea may be present
- Liver or spleen may become enlarged

Incubation period
The incubation period can vary from several weeks to months. Once a person is infected, the virus is shed intermittently in the saliva and urine for the rest of the person's life. Up to 70% and usually 30% to 40% of normal children aged 1 to 3 years in group care settings excrete CMV in their saliva and urine, respectively. Nearly everyone is infected with CMV during their lifetime.

Contagious period and spread
CMV is spread by contact with body secretions of infected individuals (in children, primarily saliva and urine). Infection requires close contact with a person excreting the virus. It can also be spread from a pregnant parent to baby before, during, and after birth, through blood transfusions, and during kissing and sexual activities.

People are contagious as long as the virus is in body secretions, which can be months or years.

Public health reporting requirements
Individual cases are not reportable. The school nurse or child care health consultant should be consulted for specific concerns, or consultation with the state or local public health agency is available.

Referral to a health care provider is optional unless symptoms are severe.

Control of spread
- People of childbearing age working with young children should pay close attention to proper handwashing procedures.
- Encourage frequent handwashing and proper hygiene techniques, especially after changing diapers.
- Avoid exchange of saliva directly or via objects.
- Wash hands and objects carefully after contact with urine.

Treatment
There is no treatment for CMV infection in healthy individuals. However, people who are immunocompromised should consult a health care provider regarding appropriate treatment.

Exclusion
None unless the child is unable to participate and be cared for without compromising the health and safety of other children in the group or other exclusion criteria apply.

Role of teachers, caregivers, and family
- Practice good hand hygiene at all times.
- Review standard precautions, especially for people of childbearing age working with or having their own children younger than 3 years participating in group care settings.
- People of childbearing age should discuss CMV exposure risk with their health care provider.

Resource
CMV and Fifths Disease | Fact sheets and letter templates (CDPHE)

Common Cold

What is the common cold?
Many different viruses can cause the upper respiratory illness known as the common cold, but the most common are rhinoviruses. Colds can occur at any time in the year, but are typically more common in the winter and spring. In general, people recover from a cold in about 7 to 10 days. However, people with respiratory conditions or weakened immune systems can develop more serious illnesses like bronchitis or pneumonia.

Signs and symptoms

- Runny or stuffy nose
- Sneezing
- Coughing
- Sore or scratchy throat
- Fatigue
- Headaches

Incubation period
1 - 14 Days

Contagious period and spread
The common cold spreads through contact with droplets (produced by coughing and sneezing) and infectious discharges from a person with infection. Contact with hands, tissues, and other articles contaminated with nose/throat discharges of people who are ill can spread the virus.

People are usually contagious a few days before symptoms appear and while symptoms are present.

Public health reporting requirements

- Report the infection to the facility director, school nurse, or child care health consultant. Discuss child health concerns with the school nurse or child care health consultant. Consultation with the state or local public health agency is also available.
- If the child develops more severe symptoms or experiences ongoing symptoms, refer them to a health care provider to be checked for secondary complications.
- *If two or more children have common cold symptoms and/or received this diagnosis from a health care provider, this may be considered a suspect or confirmed outbreak and should be reported to state or local public health.
- More information on reportability of non-COVID-19 respiratory illnesses in schools and child care are on CDPHE's website under the link titled "Guidance for Prevention and Control of Non-COVID-19 Respiratory Illnesses in School and Childcare Settings."

  *The occurrence of respiratory illness among children or students should first be considered suspect for COVID-19. If RSV or other respiratory illnesses such as influenza are circulating locally, these pathogens should also be considered suspect until testing proves otherwise. Co-infections of SARS CoV-2 and other viral respiratory pathogens can and may occur.

Control of spread

- Encourage frequent handwashing and proper hand-hygiene techniques.
- Teach children to cover their nose and mouth with a tissue or upper arm sleeve when they cough and sneeze, and to throw away the tissue after they use it.
- Properly dispose of articles soiled with nose/throat discharges, such as tissues.
- Clean potentially contaminated surfaces, like doorknobs, tables, handrails, etc. (Disease Prevention: The Facility Environment)
- Avoid sharing cups and eating utensils and touching the face with unwashed hands.

Treatment
There is no specific treatment for the common cold. Check with the child's health care provider before giving symptom relieving medications like cough suppressants and decongestants. Do not give aspirin or other salicylate-containing products (such as Pepto Bismol®) as this increases the risk of Reye syndrome, a rare but very serious complication. Use acetaminophen or ibuprofen to safely relieve discomfort due to illness. Antibiotics should not be used for viral infections such as the common cold.

Exclusion
Exclusion for the common cold may not be necessary. However, consider SARS-CoV-2, RSV, and influenza as causes of illness. If a student or child has symptoms of respiratory illness, schools and child care centers should first defer to the guidance and exclusion criteria for COVID-19. If SARS-CoV-2 has been ruled out as the cause of illness, it is recommended that symptomatic children be excluded from school/child care until they are fever-free for at least 24

hours without the use of fever-reducing medications (fever defined as temperature >100.4º F). Additionally, all other symptoms of respiratory illness, including cough, should be resolved or improved before returning to school or child care, or if the child meets any of the exclusion criteria.

Role of teachers, caregivers, and family

- Practice good hand hygiene at all times.
- Teach children to cover their nose and mouth with a tissue or upper arm sleeve when they cough and sneeze, and to throw away the tissue after they use it.
- Properly dispose of articles soiled with nose/throat discharges, such as tissues.

Resources

Common Cold | CDC

COVID-19 (SARS-CoV-2 Disease)

What is SARS-CoV-2 Disease (COVID-19)?
COVID-19 is a respiratory disease caused by SARS-CoV-2, a coronavirus discovered in 2019 that caused a worldwide pandemic. Different variants of the virus emerged throughout the pandemic.

Signs and symptoms
The signs and symptoms of COVID-19 can vary based on the variant that is causing the illness.

- Fever (100.4˚F or higher)
- Fatigue
- Headache
- Myalgia
- Cough
- Nasal congestion or rhinorrhea
- New loss of taste or smell
- Sore throat
- Shortness of breath or difficulty breathing
- Abdominal pain
- Diarrhea
- Nausea or vomiting
- Poor appetite or poor feeding
- Children infected with SARS-CoV-2 may have many of these nonspecific symptoms, only have a few (such as only upper respiratory symptoms or only gastrointestinal symptoms), or may be asymptomatic. The most common symptoms in children are cough and/or fever.

Incubation period
The incubation period for COVID-19 is thought to extend to 14 days, with a median time of onset of four to five days. The incubation period may be shorter or longer depending on the variant that is circulating.

Contagious period and spread

- A person is assumed to be contagious two days before they start having symptoms and for 10 days after symptoms start.
- In children too young or unable to reliably report their symptoms, parent/guardians, caregivers and teachers should monitor for symptoms and other age-appropriate signs of disease, including decreased appetite or activity.
- Symptomatic individuals should be tested as soon as possible after symptoms develop and seek clinical evaluation if symptoms become severe or concerning (such as trouble breathing).

Public health reporting requirements

- Per 6 CCR 1009-1, clinical labs and/or health care providers are required to report positive COVID-19 test results to public health. If school personnel perform and interpret rapid testing on-site, they are functioning as a clinical lab and are required to report positive results. Per 6 CCR 1009-1, schools and child care facilities are also required to report single COVID-19 cases of which they become aware to public health, even if testing was performed elsewhere. Schools are able to disclose this information to public health without prior written consent under FERPA's health or safety emergency exception, because a person with COVID-19 represents a potential threat to the health and safety of others at the school. This is true even if there is not an outbreak.
- New variants could emerge and alter the infectivity or severity of the virus. If this does occur, public health may interview the people who have COVID-19 and conduct contact tracing to determine who might be close contacts of the case, to make recommendations about mitigation strategies.
- Outbreaks of COVID-19 can cause significant increases in absenteeism among staff and students. Outbreak thresholds may be difficult to determine in school or child care settings. However, significant increases in school or child care absenteeism resulting from COVID-19-like illness should be reported to local public health agencies within four hours, per 6 CCR 1009-1.
- Generally speaking, a situation is considered an outbreak if there is an increase in the number of ill children and/or staff members at the school or child care center.

- Schools and child care providers can report outbreaks by:
  - Filling out the CDPHE COVID-19 outbreak report form (or emailing the PDF form to their local public health agency.)
  - Calling their local public health agency.
  - Calling CDPHE at 303-692-2700.

Control of spread

- The virus spreads mainly from person-to-person through respiratory droplets produced when an infected person coughs, sneezes, or talks. Some people who are infected may not have symptoms.
- The state continues to recommend a layered approach of best practices to prevent COVID-19 outbreaks. These best practices to prevent the spread of COVID-19 and other respiratory viruses, include vaccination, staying home when sick (isolation and exclusion), increased ventilation, handwashing, cleaning, and disinfection. Additional strategies can be used in response to increases in cases and when outbreaks are detected, including, maximization of outdoor activities, mask-wearing, testing, and limiting large and crowded gatherings and mixing between grades, classrooms and other groups. These strategies continue to be important for preventing the transmission of many infectious diseases in schools.

Treatment

Treatment of COVID-19 in hospitalized patients remains largely supportive and includes management of complications. NIH treatment guidelines recommend Paxlovid or remdesivir for children aged 12-17 who are at high risk of progression to severe COVID-19. Remdesivir can also be considered in those <12 (aged ≥28 days and weighing ≥3 kg).

Exclusion

- Ensuring people who are ill stay home (and people with COVID-19 follow isolation requirements, regardless of vaccination status) is critical to preventing the spread of COVID-19. People with COVID-19 should isolate themselves for at least five full days to protect others.
- After staff or students have ended isolation, when they are feeling better (no fever without the use of fever-reducing medications and symptoms improving), they should either wear a mask through day 10 or they have access to antigen tests, use them. With two sequential negative tests 48 hours apart, staff or students may remove their mask sooner than day 10. Addition information on isolation: CDC COVID-19 isolation recommendations.
- Additional exclusion criteria are listed in a previous section: Exclusion Guidelines for Children and Staff

Role of teachers, caregivers, and families

- Get COVID-19 and flu vaccines as soon as recommended, ideally before the end of October.
- Encourage students and staff to stay home when sick or potentially contagious.
- Improve indoor ventilation through increased air exchanges and filtration.
- When symptomatic or after a recent exposure, wear a mask indoors and around others.
- Practice good hand and respiratory hygiene. Some people may choose to wear a mask for added protection, and it is important to respect everyone's choice.
- Clean shared spaces and objects appropriately. Increase frequency of disinfection when cases increase. Notify students, staff, and parents/guardians of known outbreaks so all individuals are appropriately informed, will monitor closely for symptoms, and may choose to increase personal mitigation measures as necessary.

Resources

CDC's Operational Guidance for K-12 Schools and Early Care and Education Programs to Support Safe In-Person Learning

Addressing symptoms at school

Letter templates to notify parents of COVID-19 cases and exposures in schools:

- COVID-19 school notification letter: general case notification
- COVID-19 school notification letter: close contacts
- COVID-19 school notification letter: isolation

Croup

What is Croup?
Croup is a condition which refers to the swelling around the vocal cords and other parts of the upper and middle airway that causes a harsh repetitive cough similar to a seal barking. This type of infection is typically caused by a group of viruses called human parainfluenza viruses. Less often, respiratory syncytial virus (RSV) or other respiratory viruses can cause croup. More cases of croup are typically seen in the fall.

Signs and symptoms
- Sharp, barking cough (usually at night)
- Labored or noisy breathing
- Fever

Incubation Period
2-7 days

Contagious period and spread
Parainfluenza viruses and other respiratory viruses are spread from person-to-person primarily by respiratory droplets created by coughing or sneezing. Transmission may also occur through contact with contaminated surfaces, hands, used tissues, or other articles soiled by nose and throat secretions.

The infection is passed for up to one week before onset of symptoms and 1-3 weeks after symptoms.

Public health reporting requirements
- Report the infection to the facility director, school nurse, or child care health consultant. Discuss child health concerns with the school nurse or child care health consultant. Consultation with the state or local public health agency is also available.
- If the child develops more severe symptoms or experiences ongoing symptoms, refer them to a health care provider to be checked for secondary complications (such as bronchitis, sinus infections, middle ear infections, and laryngitis).
- If two or more children have symptoms of croup and/or received this diagnosis from a health care provider, this may be considered a suspect or confirmed outbreak and should be reported to state or local public health.*
- More information on reportability of non-COVID-19 respiratory illnesses in schools and child care is on CDPHE's website under the link titled "Guidance for Prevention & Control of Non-COVID-19 Respiratory Illnesses in School and Childcare Settings."

*The occurrence of respiratory illness among children or students should first be considered suspect for COVID-19. If RSV or other respiratory illnesses such as influenza are circulating locally, these pathogens should also be considered suspect until testing proves otherwise. Co-infections of SARS CoV-2 and other viral respiratory pathogens can and may occur.

Control of spread
- People who are ill should avoid direct and indirect exposure to others.
- Disinfect eating and drinking utensils and commonly touched surfaces. (Disease Prevention: The Facility Environment)
- Promptly dispose of tissues soiled with nose and throat secretions.
- Teach children to cover their nose and mouth with a tissue when they cough or sneeze and throw away the tissue after they use it.
- Emphasize frequent and thorough handwashing, especially after coughing or sneezing.
- Consult with local or state public health if help is needed with implementation of control measures.

Treatment
There is no antibiotic treatment for a viral infection. Most infections require no treatment. Oral and nebulized steroids are sometimes used in severe cases.

Exclusion
If a student or child has symptoms of respiratory illness, schools and child care centers should first defer to the guidance and exclusion criteria for COVID-19. If SARS-CoV-2 has been ruled out as the cause of illness, it is recommended that symptomatic children be excluded from school/child care until they are fever-free for at least 24 hours without the use of fever-reducing medications (fever defined as temperature >100.4° F). Additionally, all other

symptoms of respiratory illness, including cough, should be resolved or improved before returning to school or child care and they no longer meet the exclusion criteria described in the earlier section, Exclusion Guidelines for Children and Staff.

Role of teachers, caregivers, and family

- Practice good hand hygiene at all times.
- Teach children to cover their nose and mouth with a tissue or upper arm sleeve when they cough and sneeze and throw away the tissue after they use it.
- Properly dispose of articles soiled with nose/throat discharges, such as tissues.

Resources:

Human Parainfluenza Viruses (HPIVs)

Cryptosporidiosis

What is Cryptosporidiosis?
Cryptosporidium is a parasite that causes an intestinal illness referred to as cryptosporidiosis. Cryptosporidiosis is a leading cause of waterborne disease among humans in the U.S., and while cases are reported year-round, infections are most common in the summer and early fall. *Cryptosporidium* can be found in cattle (especially pre-weaned calves), humans and other domestic animals.

Signs and symptoms
- Watery, non-bloody diarrhea
- Abdominal cramps
- Little or no fever
- Weight loss
- Sometimes vomiting
- General malaise
- Nausea

Incubation period
Two to 10 days (usually seven days)

Contagious period and spread
Cryptosporidium is spread by fecal→oral transmission and occurs by ingesting the parasite from the stool of people or animals with infection. People can be exposed to this parasite when they swim in or drink contaminated water, eat contaminated food, or come into contact with infected animals. The parasite can survive outside the body for two to six months in moist surroundings.

People are contagious as long as they have the parasite in their intestines and are most contagious when they have diarrhea. The parasite may be present in the stool for several weeks after symptoms subside.

Public health reporting requirements
Staff who become aware of a student or staff member with Cryptosporidium should report the infection to the facility director or school nurse. The facility should report to the state or local public health agency within four days of diagnosis.

If other children or staff are ill with diarrhea, refer them to their health care providers and contact public health as soon as possible as this could be an outbreak. Generally speaking, it is considered an outbreak if there is an increase in the number of ill children and/or staff members at the school or child care center.

Control of spread
- Encourage and teach the importance of frequent handwashing and proper hygiene techniques, especially after animal contact, using the toilet, changing diapers, and before eating. Sample signs showing when and how to wash hands are included in the online “Fact sheets and letter template” folder. Post them or similar signs throughout the child care center or school to remind people to wash their hands.
- Promptly sanitize contaminated surfaces (like diaper-changing areas) and other commonly touched surfaces (like toys) and discard food or water if it is thought to be contaminated. (Disease Prevention: The Facility Environment)
- Chlorine sanitizers (such as bleach) do not kill this organism. A non-chlorine sanitizer should be used to sanitize contaminated articles (such as a 5% ammonia solution or 3% hydrogen peroxide solution for 15 minutes). Heat (140˚F for two minutes) will also destroy the organism. Do not mix bleach and ammonia products.
- Untreated water (such as water from lakes, ponds, springs, rivers, and streams) should not be used as drinking water unless it is boiled for at least one minute or adequately filtered by using a filter capable of removing particles 0.1 to 1.0 micrometers in diameter. Chemical disinfectants, such as chlorine and iodine, are not effective at killing *Cryptosporidium*.
- Affected individuals should not swim or wade in pools or other recreational water until two weeks after their diarrhea has resolved.
- Refer to Disease Prevention: Food Safety for information on food safety.
- Alert possibly exposed family and staff members to watch for symptoms and provide them with prevention tips. See recommendations for caregivers and the family section below.

Treatment

The illness usually lasts one to two weeks (average of 10 days), but symptoms can come and go for up to 30 days or longer. Some people can be infected without showing any symptoms. In children, symptoms often begin with loss of appetite and vomiting, but the most common symptom is watery diarrhea. Ill people should be given plenty of fluids to prevent dehydration. Healthy children usually get better on their own. However, the infection can be more severe in people with weakened immune systems. People with suppressed immune systems should contact their health care provider. In limited circumstances, a health care provider may prescribe nitazoxanide, an FDA-approved medication for treatment of cryptosporidiosis.

Exclusion

Child care and preschool

- EXCLUDE all infected children and/or caregivers until 24 hours after diarrhea has resolved.
- Ill children should not go to another facility during the period of exclusion.
- Determine if other children or staff have recently had diarrhea. Other children with diarrhea should be excluded, seen by their physician, and submit stool for testing. If other cases in the center are identified, consider sending a letter home to parents.

Primary and secondary school

- EXCLUDE all infected children experiencing symptoms and/or staff until at least 24 hours after diarrhea has resolved.
- In general, students or staff with cryptosporidiosis who do not have diarrhea and are not otherwise sick may remain in school.
- In rare circumstances, public health may require additional testing before a person with infection can return to work, school, or child care.
- EXCLUDE affected individuals from food preparation until at least 24 hours after their diarrhea has resolved, or they are cleared by the state or local public health agency.

Role of teachers, caregivers, and family

- If your child or a child you care for is infected with cryptosporidiosis, follow the advice of the child's health care provider.
- Practice good handwashing, especially after changing diapers, going to the bathroom or helping a child to the bathroom, or handling food.
- Since pets and other animals can carry *Cryptosporidium*, wash hands after feeding or touching, and make sure that bedding and feeding materials are clean.
- Clean and disinfect diapering, bathroom, and food preparation areas frequently.
- Avoid drinking or serving raw milk, unpasteurized dairy products, or unpasteurized cider.
- Avoid drinking or serving untreated/unfiltered water from streams, lakes, and other bodies of water.
- Adhere to local advisories to boil water, and avoid drinking or serving water of unknown quality or safety.
- Do not swim or wade in pools or other recreational water until two weeks after diarrhea symptoms resolve.

Resource

Cryptosporidium Fact Sheets (CDC)

E. coli O157 and other Shiga toxin-producing *E. coli* (STEC)

What is *E. coli*?

There are many types of *Escherichia coli* (*E. coli*) bacteria that live in the intestinal tract. Only a subset of Shiga toxin-producing *E. coli* (STEC) bacteria that cause gastrointestinal illness are reportable in Colorado. *E. coli* serotype O157 and other Shiga toxin-producing *E. coli* bacteria can cause illness ranging from mild intestinal symptoms to severe kidney complications, especially in children and the elderly. Sporadic cases of STEC infection occur throughout the year with a peak during the summer months. *E. coli* bacteria commonly live in cattle. However, other animals, such as deer, elk, goats, and sheep, are also known to carry STEC. Other animals, such as pigs, can be exposed to STEC in the environment and shed the bacteria in their feces. In addition, humans also transmit STEC.

Signs and symptoms

- Diarrhea, which can be bloody
- Abdominal cramps
- Sometimes nausea
- Low-grade or no fever
- Vomiting
- Hemolytic uremic syndrome

Incubation Period

Ranges from one to 10 days (usually three to four days)

Contagious period and spread

STEC infection is spread through the fecal→oral route. People can become ill with STEC by eating contaminated food (e.g., undercooked ground beef, unpasteurized juice, milk, or other dairy products, contaminated produce — especially leafy greens and sprouts, uncooked flour, and dried meats); drinking or swimming in contaminated water; or having contact with animals or their feces, such as at a petting zoo or farm. STEC is highly contagious and can also be spread person-to-person, especially in child care and preschool facilities.

STEC can be spread as long as the bacteria is in the stool, typically one to four weeks, even after symptoms have resolved.

Public health reporting requirements

- Staff who become aware of the illness should report the infection to the facility director, school nurse, or child care health consultant.
- The facility should report to the local or state health department within four days of diagnosis.
- If other children or staff are ill with diarrhea, refer them to their health care providers and contact public health as soon as possible as this could be an outbreak. Generally speaking, it is considered an outbreak if there is an increase in the number of ill children and/or staff members at the school or child care facility, or two or more cases of STEC from different households.

Control of spread

- Consult with local or state public health on implementation of control measures.
- Encourage and teach the importance of frequent handwashing, especially after animal contact, after using the toilet, changing diapers, and before eating. Sample signs showing when and how to wash hands are included in the online “Fact sheets and letter template” folder. Post them or similar signs throughout the child care center or school to remind people to wash their hands.
- Promptly sanitize contaminated surfaces (like diaper-changing areas) and other commonly touched surfaces (like toys) and discard food or water if it is thought to be contaminated. See Disease Prevention: The Facility Environment.
- Refer to Disease Prevention: Food Safety for information on food safety.
- Alert possibly exposed family and staff members to watch for symptoms, and provide them with prevention tips. See recommendations for caregivers and the family section below.

Treatment

Most people with healthy immune systems will recover without treatment within five to seven days. Antibiotics are generally not indicated for treatment of STEC because they may increase the risk of developing Hemolytic Uremic Syndrome (HUS). HUS develops in up to 20% of E. coli O157:H7 cases among children. HUS appears to be less common

among people with non-O157 STEC infections; however, it does occur. People with STEC infection should be given plenty of fluids to prevent dehydration.

Anti-diarrheal drugs may also increase the risk of HUS and should not be given to children with inflammatory or bloody diarrhea. Careful follow-up of patients with hemorrhagic colitis is recommended to detect changes suggestive of HUS.

Exclusion

- Child care and preschool
  - EXCLUDE all children, staff, and caregivers infected with STEC until cleared by public health. Clearance by public health may require two consecutive negative stools collected 24 hours apart, 48 hours after completion of antibiotics.
  - Ill children should not go to another facility during the period of exclusion.
  - When a case of STEC is identified in a child attending child care, determine whether additional children have or have recently had diarrhea. Other children with diarrhea should be excluded, seen by their physician, and submit stool for STEC testing. If other cases in the center are identified, consider sending a letter home to parents/guardians/caregivers. A sample letter is available in the resource folder.
  - If the case is the only child in the classroom or center who has been ill, no further action is indicated for other children in that classroom or center.
  - Staff with no role in food preparation or feeding (e.g. office staff) may return to work after diarrhea has been resolved for at least 24 hours without follow-up stool testing.
- Primary and secondary school
  - Students or staff with STEC infection should be excluded until at least 24 hours after their diarrhea has resolved.
  - Children who wear diapers or have developmental delays resulting in fecal incontinence or hygiene concerns should be excluded until cleared by public health.
  - Students or staff who handle food and have an STEC infection must not prepare food until at least 24 hours after their diarrhea has resolved, and they have two consecutive negative stool tests taken at least 24 hours apart (collected at least 48 hours after completion of antibiotic therapy, if antibiotics are given).

Role of teachers, caregivers, and family

- If your child or a child you care for is infected with STEC, follow the advice of the child's health care provider.
- It is important to practice good handwashing, especially after changing diapers, going to the bathroom or helping a child go to the bathroom, or handling food.
- Diapering, bathroom, and food preparation areas should be cleaned and disinfected frequently.
- Wash hands after touching pets or other animals as they can carry STEC.
- Keep food that will be eaten raw, such as vegetables, from becoming contaminated by animal-derived food products, and thoroughly cook all ground beef, hamburger, and needle-tenderized beef products to an internal temperature of at least 160°F.
- Avoid consuming or serving unpasteurized milk, unpasteurized dairy products, or unpasteurized juices, like fresh apple cider.
- Infected individuals should not swim or wade in pools or other recreational water while experiencing diarrhea.

Resources

Shiga toxin-producing *E. coli* | Fact sheets and letter templates (CDPHE)

Fifth disease (Human Parvovirus B19)

What is Fifth disease?
Fifth disease is a common viral infection and rash caused by a virus called parvovirus B19. The rash usually appears four - 14 days after the start of the infection. People can be infected and infectious without ever having any signs or symptoms. Outbreaks occur in the late winter and early spring. The disease can be severe in people with sickle cell disease or certain blood disorders, as well as those with compromised immune systems.

Signs and symptoms

- Fever
- Headache
- Rash ("slapped cheek" rash on face and lacy rash on the rest of the body)
  - Rash may go away and return over time
- Tired, muscle aches
- Uncommon symptoms are itchiness, cough, diarrhea, vomiting, runny nose, and joint pain

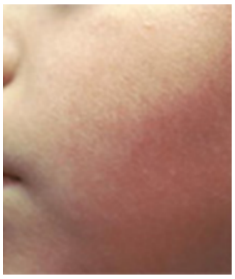


Image: cdc.gov

Incubation period
Incubation period: Four to 14 days; sometimes as long as 21 days

Contagious period and spread

- Person-to-person via respiratory (droplet) route: Contact with large droplets that form when a child talks, coughs, or sneezes. These droplets can land on or be rubbed into the eyes, nose, or mouth. The large droplets do not stay in the air; they travel three feet or less and fall onto the ground.
- Rarely, a baby can be infected before birth from infection of a pregnant person. Infection can also happen from exposure to blood or blood products but is very rare.
- Contagious period: Until the rash appears.

Control of spread

- Use good hand-hygiene techniques.
- Sanitize contaminated items.
- Dispose of tissues containing nose and throat secretions.

Treatment
There is no specific treatment. Most infections are mild enough that they do not require medicine.

Exclusion
None, unless the student/child has an underlying blood disorder or a compromised immune system. Children with these conditions may appear ill and shed large amounts of virus. Exclude the child if they meet other exclusion criteria, or the child is unable to participate and staff are unable to care for the student/child without compromising the health and safety of others.

Role of teachers, caregivers, and family

- Report the infection to the staff member designated by the child care program or school for decision-making and action related to the care of ill children.
- Susceptible pregnant teachers/caregivers and pregnant parents of children in child care and school settings should practice good hand hygiene to reduce their risk of human parvovirus B19 infection and infection from other viruses that could harm a fetus.
- Teach children and teachers/caregivers to cover coughs and sneezes with a tissue or with an upper sleeve or elbow if no tissue is available, wash their hands after using facial tissues or having contact with mucus, and dispose of tissues that contain nasal secretions after each use.
- Teach everyone to remove any visible nasal or cough discharge from surfaces, change or cover contaminated clothing, and practice hand hygiene right after using facial tissues or having contact with mucus. Use good hand-hygiene techniques at all times.

Resources
CMV and fifth disease | Fact sheets and letter templates (CDPHE)

Genital herpes (Herpes Simplex Virus (HSV))

What is genital herpes (HSV)?
Genital herpes are caused by the herpes simplex virus (HSV). There are two types of HSV (type one and type two). Both can cause genital herpes, although type two is a more common cause. Genital herpes may be recurrent and there is no cure. The first occurrence typically lasts about 12 days. Subsequent, usually milder, occurrences typically last about four days. The interval between clinical episodes is called the latent period. Viral shedding occurs intermittently during latency, and sexual transmission of HSV may occur at these times.

Signs and symptoms
- Single or multiple fluid-filled sores appear anywhere on the genitalia.
- Sores spontaneously rupture to form shallow ulcers that can be very painful. The ulcers resolve spontaneously with minimal scarring.
- Central nervous system involvement, development of sores at other sites, and fungal infections are possible (but rare) complications.

Incubation period
Usually two to 12 days

Contagious period and spread
Genital herpes is transmitted through sexual contact: oral, anal, and vaginal. Once a person is infected with HSV, they can shed it intermittently for years and possibly lifelong.

Public health reporting requirements
- Cases of genital herpes are NOT reportable to public health.
- The possibility of sexual abuse must be considered when infections occur in prepubescent children and must be reported to appropriate authorities.

Control of spread
- People with infection should be examined by a health care provider. People with infection should seek medical care if symptoms persist or recur. Parental consent is not required for minors to be examined and treated.
- Sexual activity should be avoided if a person has signs and symptoms.
- People with infection should abstain from sex or use condoms to prevent future infections.
- General education on STI prevention is advocated.
- Additional information is available at CDC's Genital Herpes webpage.

Treatment
Antiviral medications can reduce shedding of the virus, diminish pain, and accelerate healing time. However, the virus may be shed intermittently for years and possibly lifelong.

Exclusion
No exclusions or environmental interventions are necessary, since STIs require close intimate physical contact for transmission, virtually always of a sexual nature.

Role of teachers, caregivers, and family
- General education about sexual health and STI prevention is recommended.
- Infections in prepubescent children and other high-risk individuals must be reported to appropriate authorities to address the possibility of sexual abuse.

Resource
Genital Herpes Facts & Brochures (CDC)

Genital warts (Human Papillomavirus (HPV))

What are genital warts (HPV)?
Genital warts are caused by the human papillomavirus (HPV) and are the most common sexually-transmitted infection (STI). There are more than 40 types of HPV. A diagnosis may be made based on the typical clinical presentation. However, many people infected with HPV do not have noticeable symptoms and do not know they are infected. Some types of HPV are associated with cervical dysplasia (abnormal cell growth) and cancer. However, these types of HPV do not cause genital warts.

Signs and symptoms

- Single or multiple soft, fleshy, painless growths/bumps anywhere on or around the genitalia. They can be small or large, raised or flat.
- HPV may also infect the mouth and throat, although this is rare.
- Generally symptoms are minor or not present at all.

Incubation period
Variable

Contagious period and spread
Genital warts are transmitted through sexual contact: oral, anal, and vaginal. Once a person is infected, they may spread the infection to others throughout their life.

Public health reporting requirements

- Cases of genital warts or HPV infections are NOT reportable to public health.
- The possibility of sexual abuse must be considered when infections occur in prepubescent children and must be reported to appropriate authorities.

Control of spread

- People with infection should be examined by a health care provider and should seek medical care if symptoms persist or recur. Parental consent is not required for minors to be examined and treated.
- Sexual activity should be avoided if a person has signs and symptoms.
- People with infectionshould abstain from sex or use condoms to prevent future infections.
- There is a vaccine available for the most common types of HPV. The vaccine is given in three doses, and it is important to get all three doses to get the best protection. The vaccine is most effective when given before a person’s first sexual contact. Females can receive either Cervarix or Gardasil vaccines. Males can receive Gardasil.

Treatment
There is no treatment for HPV, but visible genital warts can be physically removed by a health care provider. Wart removal does not eradicate HPV. However, it will decrease the amount of virus shedding that may limit transmission. Removal regimens include cryotherapy, electrodessication, electrocautery, or other topical treatments.

Exclusion
No exclusions or environmental interventions are necessary. STIs require close intimate physical contact for transmission, virtually always of a sexual nature.

Role of teachers, caregivers, and family

- Encourage routine vaccination.
- General education about sexual health and STI prevention is recommended.
- Infections in prepubescent children and other high-risk individuals must be reported to appropriate authorities to address the possibility of sexual abuse.

Resources
HPV Facts & Brochures (CDC)

Giardiasis

What is giardiasis?
Giardia is a parasite (*Giardia lamblia*) that causes an intestinal infection in people and animals, referred to as giardiasis. Giardiasis has a worldwide distribution. Children are infected more often than adults, and infections are more common in the summer and fall. The infectious dose may be as few as 10 cysts.

Signs and symptoms
- Diarrhea
- Fatigue
- Greasy stools that tend to float
- Abdominal cramping
- Excess gas or bloating
- Nausea/vomiting
- Foul-smelling stools
- Anorexia/weight loss

Incubation period
One to three weeks, commonly seven to 10 days

Contagious period and spread
Giardia is spread by the fecal→oral route and occurs by ingesting the parasite from the stool of people or animals with infection. People can become ill by drinking contaminated water, eating contaminated food, or coming into contact with infected animals. Person-to-person transmission can occur in child care centers and other institutions.

People are contagious as long as they have *Giardia* in their stool but are most contagious while having diarrhea. The parasite generally appears in the stool when symptoms begin and can sometimes remain in a person's stool for several months.

Public health reporting requirements
- Staff who become aware of illness should report the infection to the facility director, school nurse, or child care health consultant.
- The facility should report to the state or local public health agency within four days of diagnosis.
- If other children or staff are ill with diarrhea, refer them to their health care provider and contact public health as soon as possible as this could be an outbreak. Generally speaking, it is considered an outbreak if there is an increase in the number of ill children and/or staff members at the school or child care center, or two or more cases of giardia from different households.

Control of spread
- Consult with local or state public health on implementation of control measures.
- Encourage and teach the importance of frequent handwashing, especially after animal contact, using the toilet, changing diapers, and before eating. Sample signs showing when and how to wash hands are included in the online "Fact sheets and letter template folder." Post them or similar signs throughout the child care center or school to remind people to wash their hands.
- Promptly sanitize contaminated surfaces (like diaper-changing areas) and other commonly touched surfaces (like toys) and discard food or water if it is thought to be contaminated. See Disease Prevention: The Facility Environment.
- Untreated water (such as from lakes, ponds, springs, rivers, and streams) should not be used as drinking water unless it is boiled for at least one minute, adequately filtered, or adequately treated with chemical disinfectants like chlorine or iodine.
- Affected individuals should not swim or wade in pools or other recreational water until two weeks after their diarrhea has resolved.
- Alert possibly exposed family and staff members to watch for symptoms and provide them with prevention tips. See recommendations for parents/guardians/caregivers and the family section below.

Treatment
Illness lasts anywhere from one to six weeks and occasionally longer. Symptoms sometimes start and stop, so it can take several weeks before an ill person seeks medical care and is diagnosed. Many people infected with *Giardia* have

no symptoms. Individuals experiencing symptoms can be treated with a variety of antiparasitic medications. Treatment of ill children with appropriate antibiotic/antiparasitic medication usually makes them non-infectious within a few days. Testing and treatment of students/children with no symptoms is not generally recommended.

Exclusion

- Child care
  - EXCLUDE all infected children and/or caregivers who have diarrhea until at least 24 hours after diarrhea has resolved.
  - Ill children should not go to another facility during the period of exclusion.
  - Determine whether additional children have or have recently had diarrhea. Other children with diarrhea should be excluded, see a health care provider, and submit a stool sample.
  - If additional cases are identified, consider sending a letter home to parents/guardians. Sample letters are included in the online "Fact sheets and letter template folder."
- Primary and secondary school
  - EXCLUDE all infected children experiencing symptoms and/or staff until at least 24 hours after diarrhea has resolved.
  - In general, students or staff with Giardiasis who do not have diarrhea and are not otherwise sick may remain in school.
- In certain circumstances, public health may require additional testing before a person with infection can return to work, school, or child care.
- EXCLUDE affected individuals from food preparation until at least 24 hours after diarrhea has resolved, or they are cleared by the state or local public health agency.

Role of teachers, caregivers, and Family

- If your child or a child you care for is infected with Giardiasis, follow the advice of the child's health care provider.
- Practice good handwashing, especially after changing diapers, going to the bathroom or helping a child go to the bathroom, or handling food. After changing diapers, wash the child's hands as well as your own.
- It is also important to wash hands after touching pets or other animals as they can carry Giardiasis.
- Diapering, bathroom, and food preparation areas should be cleaned and disinfected frequently.
- Avoid drinking or serving untreated/unfiltered water from streams or lakes, unboiled water while traveling in developing countries, or whenever the water quality is unknown.
- Avoid swallowing water when swimming. Lakes, streams, and other bodies of water, as well as swimming pools, can be contaminated with *Giardia*.
- To prevent others from becoming ill, individuals infected with *Giardia* should not swim or wade in pools or other recreational water until two weeks after their diarrhea has resolved.

Resources

Giardia | Fact sheets and letter templates (CDPHE)

Gonorrhea

What is Gonorrhea?
Neisseria gonorrhoeae, a bacterium, causes gonorrhea infection (sometimes referred to as gonococcal infections). The majority of infections do not cause symptoms and are detected through screening tests. Symptoms of gonorrhea, when present, are similar to those of chlamydia. These two are often seen together as co-infections in the same person and their partner(s).

Signs and symptoms
- Many people with infection do not have symptoms (asymptomatic).
- Females may have abnormal vaginal discharge, abnormal menses, or have painful or difficult urination. Ten to 20% of infected females develop pelvic inflammatory disease (PID), which can lead to ectopic pregnancy, infertility, and chronic pelvic pain.
- Males may have painful or difficult urination, increased frequency of urination, and urethral discharge. Males are at risk for epididymitis.
- Anorectal and pharyngeal (throat) infections can occur and a person may or may not have symptoms.

Incubation period
Usually one to 14 days

Contagious period and spread
- Gonorrhea is spread through sexual contact: oral, anal, and vaginal.
- Individuals are contagious as long as the bacteria are present and up to seven days after completion of treatment.

Public health reporting requirements
- Gonorrhea infections must be reported to the state or local public health agency within four days of a suspected or confirmed diagnosis.
- The possibility of sexual abuse must be considered when infections occur in prepubescent children and must be reported to appropriate authorities.

Control of spread
- People with infection should be examined by a health care provider and treated as soon as the diagnosis is confirmed to prevent complications. Treatment of the partner(s) is a crucial strategy to prevent re-infection. People with infection should seek medical care if symptoms persist or recur. Parental consent is not required for minors to be examined and treated.
- People with infection should avoid sexual activity until they and their partner(s) are treated and cured.
- People with infection should abstain from sex or use condoms to prevent future infections.
- Additional information is available from CDC: Gonorrhea

Treatment
Treatment is with antibiotics. Concurrent treatment of sex partner(s) with same regimen is essential to prevent re-infection or spread of disease.

Exclusion
No exclusions or environmental interventions are necessary, as STIs require close intimate physical contact for transmission, virtually always of a sexual nature.

Role of teachers, caregivers, and family
- General education about sexual health and STI prevention is recommended.
- Infections in prepubescent children and other high-risk individuals must be reported to appropriate authorities to address the possibility of sexual abuse.

Resources
Gonorrhea Facts & Brochures (CDC)

Hand, Foot, and Mouth Disease (HFM)

What is Hand, Foot, and Mouth Disease?
Hand, Foot, and Mouth Disease is a common set of symptoms associated with viral infections that are most frequently seen in the summer and early fall. This illness is mild and common in children. Several different types of viruses can cause the disease. Sometimes people can develop the disease more than once if exposed to a different virus. HFM is most common in children aged 5 years and younger, but can sometimes occur in adults.

Signs and symptoms

- Tiny blisters in the mouth and on the fingers, palms of the hands, buttocks, and soles of the feet
- One, few, or all of these body sites may have blisters
- Poor appetite due to mouth blisters/pain
- Common cold signs or symptoms with fever
- Vomiting and diarrhea are rare but do occur
- May cause neurologic symptoms, such as balance issues or muscle jerking


Images: www.aad.org

Incubation period
Usually three to six days

Contagious period and spread
Virus may be shed for weeks to months in the stool after the infection starts; respiratory shedding of the virus is usually limited to one to three weeks.

Spread through:

- Respiratory (droplet) route: Contact with large droplets that form when a child talks, coughs, or sneezes. These droplets can land on or be rubbed into the eyes, nose, or mouth. Most of these droplets do not stay in the air. Usually, they travel no more than three feet and fall onto the ground.
- Contact with respiratory secretions, or objects contaminated by children that carry these viruses.
- Fecal→oral route: Contact with feces of children who are infected. This generally involves an infected child contaminating their fingers and then touching an object that another child touches. The child who touched the contaminated surface then puts their fingers into their mouth or another person's mouth.

Public health reporting requirements

- Report the infection to the facility director, school nurse, or child care health consultant. That person, in turn, alerts possibly exposed family and staff members to watch for symptoms.
- Individual cases do not need to be reported to public health.
- Contact the local or state public health agency for guidance if notification of families via letter is planned.

Control of spread

- Teach children and teachers/caregivers to cover their mouths and noses when sneezing or coughing with disposable facial tissues, if possible, or with an upper arm sleeve or elbow if no facial tissue is available in time.
- Teach everyone to practice hand hygiene right after using facial tissues or having contact with mucus. Change or cover contaminated clothing.
- Dispose of facial tissues that contain nasal secretions after each use.
- Use good hand-hygiene techniques at all times, especially after diaper changing.
- Promptly disinfect contaminated surfaces (like diaper-changing areas) and other commonly touched surfaces (like toys).
- Consult with local or state public health with implementation of control measures if the spread is ongoing among children/students.

Treatment
There is no specific treatment. Over-the-counter medications can provide some degree of relief from fever or aches and pains associated with the sores.

Exclusion

None, unless the child meets other exclusion criteria, is drooling uncontrollably and has mouth sores, or is unable to participate and staff determine they cannot care for the child without compromising the health and safety of others.

Note: Exclusion may not reduce disease transmission because some children may shed the virus without becoming recognizably ill and other children who do become ill may shed virus in their stool for several weeks.

Role of teachers, caregivers, and family

- Seek medical advice if the child is uncomfortable with signs of illness from the infection, such as an inability to drink or eat, or if the child seems very ill.
- Practice good hand hygiene, and cover mouths and noses when sneezing or coughing.
- Clean and disinfect contaminated surfaces.

Resources

Hand, Foot, and Mouth Disease | Fact sheets and letter templates (CDPHE)

Head lice (Pediculosis)

What is Pediculosis (head lice infestation)?
Head lice are tiny insects about the size of a sesame seed that live on the skin of the scalp and the hair. They feed on blood and lay eggs that they attach to the hair shaft. Eggs hatch in about a week, and the young lice feed and molt three times before molting again to an adult. Adult lice will live for about a month. Lice are common among children in all socioeconomic groups and are not a health hazard or a sign of uncleanliness.

Signs and symptoms

- Presence of lice or attached eggs on the scalp or on the hair
- Itching behind the ears and at the back of the neck (scratching may lead to secondary infections)

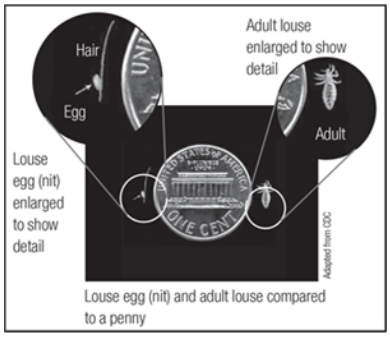


Image: healthychildren.org

Incubation period
There is no incubation period. An infestation begins with the transfer of a louse or several lice to a new human host. Rarely, a shed hair with an attached nit can hatch and start an infestation. Shed hairs may be present on clothing or bedding.

Contagious period and spread
Head lice are spread by direct contact with the head of a person with infestation, or by contact with items used by a person with infestation such as combs, brushes, and hats. Lice walk. They cannot hop or fly.

A person can transfer lice to others as long as they are infested with live lice. Even when no live lice are present, there may be nits close to the scalp that have not hatched. Once these eggs hatch, live lice are once again present and can be transferred.i

Public health reporting requirements
Individual cases are not reportable. The school nurse/facility director should be consulted for specific concerns. Consultation with the state or local public health agency is also available.

Control of spread

- Teach children not to share personal items like hats, combs, brushes, scarves, or coats.
- Hang coats separately. Do not hang or pile them on top of each other.
- Clothing and personal items should be stored separately (different hooks, cubby holes, etc.).
- Students/children likely to have had direct head-to-head contact with someone who is infested should be checked for lice and treated if live lice are found.
- Parents/guardians/caregivers of infested students/children should be instructed about in-home control measures and should check other household members for lice.
- Checking entire classrooms or schools has not been shown to be effective at controlling the spread.
- No-nit policies are not recommended because they have not been shown to be effective at controlling head lice infestations, and such policies may keep children out of the program needlessly.
- Environmental control measures
  - Carpet and furniture can be vacuumed or gently ironed (not sprayed with insecticide).
  - Combs and brushes should be soaked in a disinfectant or lice-killing solution for at least 10 minutes.
  - Launder clothing and bedding in hot water (130℉) and dry them on high-heat setting for at least 40 minutes, OR dry clean them. This should be done for items in the facility and at home.
  - Items that cannot be cleaned should be placed in a plastic bag for two weeks.

Treatment

- Over-the-counter and prescription treatments are available. Parents/guardians should consult with their health care provider if they have any questions about which treatment to use.
- Follow treatment instructions closely. Nits can survive treatment, so a second treatment is needed seven to 10 days after the first treatment to kill lice that have hatched from those eggs.
- Flammable or toxic substances such as gasoline or kerosene should never be used.
- Use a nit comb to remove nits from the hair.

- Herbal and “natural” remedies, like ylang-ylang and tea tree and lavender oils, have not been scientifically studied and are not regulated by the FDA. Therefore, the content, safety, and effectiveness cannot be assumed, and use of these remedies does not represent treatment.

Exclusion

- Exclude a child or children with an active infestation from the end of the program or school day until after a pediculicide treatment has been applied.
- Until the end of the program or school day, avoid any activity involving head-to-head contact or sharing of head gear.

Role of teachers, caregivers, and family

- Report infestation to the staff member designated for decision-making and action related to care of affected children in the facility. That person, in turn, will alert potentially exposed close contacts and staff members to watch for symptoms.
- Check children observed scratching their heads for lice — if lice are found, check all contacts.
- Teach staff and parents/guardians/caregivers how to recognize lice and nits.

Resources

Lice | Fact sheets and letter templates (CDPHE)

Hepatitis A

What is Hepatitis A?
Hepatitis A is a viral infection that causes inflammation of the liver. The severity of illness ranges from mild, lasting one to two weeks, to severe, lasting several months. Older children and adults are more likely to have symptoms, while young children may have mild symptoms or no symptoms at all. A blood test for hepatitis A antibodies (IgM) is needed to diagnose this infection. Animals do not carry or spread this virus.

Signs and symptoms

- Yellow skin and eyes (jaundice)
- Abdominal cramps
- Diarrhea
- Dark urine
- Pale stools
- Low-grade fever

Incubation period
Two to six weeks, usually four weeks

Contagious period and sSpread
The disease is spread through the fecal→oral route (through consumption of contaminated food and water or through person-to-person transmission) and can be spread by people who do not have symptoms.

A person is most contagious in the two weeks before symptoms begin and remains contagious for a week after jaundice begins.

Public health reporting requirements

- Report the infection to the local or state health department within 24 hours of a suspected or confirmed diagnosis.
- Notify local or state public health departments if the Hepatitis A case prepares food for others, or attends or works in a child care facility.

Control of spread

- Consult immediately with local or state public health for implementation of control measures.
- Unvaccinated people who are exposed to someone with hepatitis A (through close contact or eating food prepared by the ill person) can be given vaccine and/or immune globulin (IG) in the two weeks after exposure in order to prevent illness or lessen the severity of symptoms. The local public health agency will evaluate whether anyone should receive IG or hepatitis A vaccine. Parents/guardians, siblings, or close playmates may need IG/vaccine.
  - **Schools**: In most instances, teachers and classmates are not at risk of becoming infected.
  - **Child Care**: Consult with public health as soon as possible to determine risks of transmission and people who may require IG/vaccine.
- Encourage frequent handwashing, especially after using the toilet, changing diapers, and before eating.
- Promptly sanitize contaminated surfaces (like diaper-changing areas) and other commonly touched surfaces (like toys), and discard food or water if it is thought to be contaminated. See Disease Prevention: The Facility Environment.

Treatment
There is no specific treatment for hepatitis A after symptoms have developed. Vaccination for hepatitis A is effective in preventing the disease and is recommended for all children at age 1.

Exclusion

- EXCLUDE all infected children and/or staff until cleared by public health.
  - **Child Care**: Ill children should not go to another facility during the period of exclusion.
- EXCLUDE affected individuals from food preparation until cleared by the state or local public health agency.

Role of teachers, caregivers, and family

- Follow instructions of health care providers for treatment and care.
- Practice good hand hygiene at all times.
- Clean and disinfect potentially contaminated surfaces and objects frequently.
- Encourage routine vaccination and routinely check that children in the facility are vaccinated.

Hepatitis B

What is Hepatitis B?
Hepatitis B (HBV) is a viral infection. Like hepatitis A (HAV) and C (HCV), HBV causes inflammation of the liver. Young children living with HBV may have few or no symptoms. Only a blood test can identify HBV infection and distinguish HAV, HBV, and HCV from one another. HBV can cause lifelong infection, cirrhosis (scarring) of the liver, liver cancer, liver failure, and death. There is a safe and effective vaccine to prevent HBV.

Signs and symptoms
An estimated 1.2 million people in the U.S. have chronic HBV. Most are unaware of their infection because they have never experienced symptoms. Symptoms may include:

- Nausea
- Vomiting
- Loss of appetite
- Fatigue
- Abdominal pain
- Diarrhea
- Joint pain
- Dark urine
- Fever
- Clay-colored stools
- Jaundice (yellowing of the skin and whites of eyes)

Incubation period
45-160 days (average 90 days)

Contagious period and spread
HBV is transmitted by direct contact with blood or body fluids of a person living with HBV. It can also be transmitted by sharing non-sterilized needles or syringes, sexual contact, or from a pregnant mother to her infant at birth. When an infant acquires HBV at birth, they have a 90% chance of living with HBV for life and a 25% chance of experiencing complications from HBV. HBV is not spread through casual activities, such as hugging, kissing, or by sharing eating utensils. It is uncommon in school/child care facilities.

People living with HBV are infectious as long as the virus is in the blood. This can be several weeks before the onset of symptoms, throughout the clinical course of the illness, and in some cases for life.

Public health reporting requirements
- Report the infection to the facility director or school nurse.
- Report to the local or state health department within four days of diagnosis.

Control of spread
- Cover open wounds or sores and prevent scratching, biting, or combative behavior.
- Vaccination is recommended for children and staff of school and child care facilities, in addition to all residents and staff of facilities for people with developmental disabilities.
- Surfaces contaminated with blood should be cleaned and sanitized while wearing medical exam quality gloves. Disinfect areas contaminated with blood spills using an EPA-registered (List B) tuberculocidal agent. See Disease Prevention: The Facility Environment.
- Dispose of soiled items in plastic bags.
- Encourage proper handwashing techniques.
- Consult with local or state public health with implementation of control measures.

Treatment
There is no specific treatment for acute HBV. Antiviral medications are available for people living with chronic HBV.

Exclusion
Exclusion is not necessary in most cases. The Colorado School Immunization Rules require children in child care and schools to be vaccinated against hepatitis B or have an appropriate exemption.

Role of teachers, caregivers, and family
- Encourage routine vaccination and routinely check that children in the facility are vaccinated.
- Use universal precautions for handling body fluids and blood.

Hepatitis C

What is Hepatitis C?
Hepatitis C (HCV) is a viral infection. Like HAV and HBV, HCV causes inflammation of the liver. For every 100 people living with HCV, 75 - 85% of people will develop a chronic infection. Chronic infections can lead to serious liver problems, including liver damage, cirrhosis (scarring), liver failure, or liver cancer. It is estimated that 70 - 80% of people living with HCV do not have symptoms.

Signs and symptoms
An estimated 3.5 million people in the U.S. have chronic HCV. Most are unaware of their infection because they have never experienced symptoms. Symptoms may include:

- Nausea
- Loss of appetite
- Fatigue
- Abdominal pain
- Vomiting
- Diarrhea
- Joint pain
- Dark urine
- Fever
- Clay-colored stool
- Jaundice (yellowing of the skin and whites of eyes)

Incubation period
14-180 days (average: 45 days)

Contagious period and spread

- HCV is transmitted by direct contact with the blood of a person living with HCV. This can occur by sharing personal items, such as razors, nail clippers, toothbrushes, or glucose monitors. It can also be spread by sharing non-sterilized needles or syringes. Having a sexually transmitted disease or sex with multiple partners also increases the risk of acquiring HCV. If a pregnant person is living with HCV, there is a 5% chance that they will pass HCV to their infant during childbirth. HCV is not spread through casual contact in a typical school/child care setting.
- People living with HCV are infectious one or more weeks before onset of symptoms and as long as the virus is present in the blood. 75 - 85% of people living with HCV will have HCV for life, if left untreated.

Public health reporting requirements

- Report the infection to the facility director or school nurse.
- Report to the local or state health department within four days of diagnosis.

Control of spread

- Cover open wounds or sores, and prevent scratching, biting, or combative behavior.
- Surfaces contaminated with blood should be cleaned and sanitized while wearing medical exam quality gloves. Disinfect areas contaminated with blood spills using an EPA-registered (List B) tuberculocidal agent. See Disease Prevention: The Facility Environment.
- Dispose of soiled items in plastic bags.
- Encourage proper handwashing techniques.
- Consult with local or state public health with implementation of control measures.

Treatment
There is no vaccine available to prevent HCV. There are several medications available to treat chronic HCV, and treatments have gotten much better in recent years. Current treatments usually involve eight to 12 weeks of oral therapy and cure more than 90% of people with few side effects.

Exclusion
No exclusions or environmental interventions are necessary, as transmission requires close sexual contact or blood exposure.

Role of teachers, caregivers, and family
Use standard precautions for handling body fluids and blood.

Herpes (Cold Sores, Fever Blisters)

What is Herpes?
Herpes is a common infection that causes fluid-filled sores on the face or lips caused by the Herpes simplex virus (HSV) types 1 and 2. Type 1 usually causes cold sores/fever blisters, and type 2 usually causes genital herpes. Sometimes herpes infections are referred to as cold sores or fever blisters, although herpes is not related to having a cold or a fever. The sores can be painful, and usually heal within several days. After the initial outbreak, the virus is usually dormant in the skin or in the nerves until something triggers another eruption. In some people, overexposure to sunlight, fever, physical or emotional stress, hormonal changes, or certain foods and drugs seem to reactivate the virus. In rare cases, the herpes virus can infect the brain and other parts of the nervous system. This complication is usually seen only in immunocompromised individuals.

Signs and symptoms
- Painful fluid-filled blisters on the face or lips
- Tingling, itching, or burning of the skin before the blisters appear

Incubation period
Two days to two weeks

Contagious period and spread
Herpes is spread by direct contact through kissing and contact with open sores. Less commonly, it can be spread through articles contaminated by the fluid from the blisters or saliva (for example, mouthed toys). It can be spread to other areas of the body by scratching or abrading the skin after touching an open sore. This can be problematic in a child with eczema. Cases are contagious until the sores heal.

Public health reporting requirements
Individual cases are not reportable. The school nurse or the state or local public health agency should be consulted for specific concerns.

Control of spread
- A person with sores should wash their hands often and avoid touching their eyes after touching the sore.
- Disinfect objects or toys that have come into contact with saliva. See Disease Prevention: The Facility Environment.
- Do not share food or drinks.
- Avoid kissing or nuzzling children on the lips or hands.
- Consult with local or state public health with implementation of control measures.

Treatment
There is no cure for herpes. Over-the-counter medications can help reduce the irritation while the sores heal. Acyclovir, an antiviral drug, has been shown to reduce shedding of the virus, diminish pain, and accelerate healing time. The virus may be shed intermittently for years and possibly lifelong.

Exclusion
Exclusion is not necessary unless the student has open sores and is drooling uncontrollably.

Role of teachers, caregivers, and family
- Report the infection to the designated staff member to develop an action plan for care and notification of possibly exposed family members and staff.
- Emphasize hand hygiene and measures to control contact with infected secretions.
- Avoid contact with cold sores with bare hands when possible. If contact with sores does occur, immediate hand hygiene is recommended.

HIV and AIDS

What is HIV and AIDS?
The human immunodeficiency virus (HIV) causes HIV infection and Acquired Immune Deficiency Syndrome (AIDS). There are two types of HIV: HIV-1 and HIV-2. HIV attacks certain cells of the immune system and typically leads to an increased susceptibility to disease. AIDS is the most severe manifestation of HIV infection. A cure for HIV infection has not been identified. However, treatment regimens are highly effective.

Signs and symptoms
Many people with HIV infection feel and appear completely healthy. People with HIV-related illness may have generalized lymphadenopathy (swollen lymph nodes all over their body), weight loss, chronic fever, chronic diarrhea, and/or fatigue, which may progress to AIDS or other illnesses due to a weakened immune system.

Incubation period
The incubation period is variable. The time from HIV infection to the development of detectable antibodies is generally one to three months. The time from HIV infection to diagnosis of AIDS can be less than one year to more than 15 years. Infants who acquire HIV infection before or during birth from infected mothers typically develop symptoms between 12 and 18 months, although some remain symptom-free for more than five years.

Contagious period and spread
HIV is present in the blood and some body fluids (semen, vaginal secretions, breastmilk), and infection is spread by sexual contact, sharing injectable drug needles and syringes, transfusion of infected blood or blood products (which rarely occurs due to blood screening), transplantation of infected tissues or organs (also very rare), and from mother to child before or during birth, or through infected breastmilk. All people with HIV infection can spread the disease by these routes. HIV is not spread by casual social contact in the workplace, school, or child care setting. Sharing food, eating utensils, dishes, or toilet facilities does not spread the disease, nor is it spread through touching or insect bites.

All people with HIV infection can spread the virus throughout their lifetime unless virally suppressed through adherence to treatment medications.

Public health reporting requirements
HIV/AIDS must be reported by laboratory and health care providers to the state or local public health agency within four days of a suspected or confirmed diagnosis.

The identity of people with HIV or AIDS should be known only to the people providing direct care to the person with the infection. The penalties for a breach of confidentiality are severe.

Control of spread
People cleaning surfaces contaminated with blood should wear latex gloves, and the surface should be cleaned with soap and water, followed by disinfection with a bleach solution (one cup bleach in 10 cups of water). See Disease Prevention: The Facility Environment.

School health education should stress that having unprotected sex and sharing drug paraphernalia increase the risk of acquiring HIV.

Treatment
Effective antiretroviral treatment is available.

Exclusion
Students/children with HIV or AIDS should be able to attend child care and school without special restrictions. Contact the CDPHE Office of STI/HIV/Viral Hepatitis at 303-692-2700 for further guidance on this issue.

Role of teachers, caregivers, and family
- General education about sexual health and STI prevention is recommended.
- Infections in prepubescent children and other high-risk individuals must be reported to appropriate authorities to address the possibility of sexual abuse.

Resources
HIV Among Youth (CDC)

Impetigo

What is Impetigo?
Impetigo is a skin infection caused by streptococcal and staphylococcal bacteria. It can occur in people of any age but is more common in children. Impetigo can affect skin anywhere on the body, although it most often occurs on the face.

Signs and symptoms

Image: www.cdc.gov

- Area of itchy skin where tiny blisters develop
- Blisters will eventually burst to reveal areas of red skin that may weep fluid
- Most commonly found on the arms, legs, and face

Incubation period
Seven to 10 days for streptococcal; variable for staphylococcal

Contagious period and spread
Infections may be spread by direct contact with infected skin. Less commonly, it can be spread through direct contact with articles (such as clothing, bedding, towels, etc.) that have come in with the rash. This infection is common in contact sports, such as wrestling. Additional resources are available for coaches.

Treated people are no longer contagious after 24 hours of antibiotic therapy. Untreated people are contagious as long as there is discharge from affected areas.

Public health reporting requirements
- Report the infection to the facility director or school nurse.
- Individual cases of Impetigo are not reportable to public health.
- Suspected outbreaks of all types (including Impetigo) are reportable to state or local public health.

Control of spread
- Discourage scratching or touching the sores and scabs.
- Keep the sores covered with a bandage.
- Encourage frequent handwashing, and wash hands after touching anything that could be contaminated with fluid from the sores.
- Sharing towels, clothing, and other personal items should be discouraged.
- Cleanliness and prompt attention to minor wounds will help prevent Impetigo.
- Wash contaminated clothes, linens, and towels.
- Consult with local or state public health with implementation of control measures.

Treatment
Oral or topical antibiotics may be prescribed to treat Impetigo. Antibiotics will decrease the spread of disease and the risk of secondary infections, as well as speed healing.

Exclusion
EXCLUDE infected students until 24 hours after beginning antibiotics.
- **Child Care**: Children should be excluded until 24 hours after antibiotic treatment has begun.
- **Schools**: Children should be excluded until 24 hours after antibiotic treatment has begun.
- **Coaches**: Skin checks are important in prevention of this illness and are recommended as part of the weigh-in protocols for contact sports.

Role of teachers, caregivers, and family
- Report the infection to the designated staff member to develop an action plan for care and notification of possibly exposed family members and staff.
- Emphasize hand hygiene and measures to control contact with infected secretions.
- Wear gloves and avoid contact with sores with bare hands when possible. If contact with sores does occur, immediate hand hygiene is recommended.
- Use medication recommended by the child's health care professional.
- Wash contaminated clothing and towels daily.

Resources

Skin infection | Fact sheets and letter templates (CDPHE)

Influenza

What is Influenza?
Influenza (flu) is a very contagious viral respiratory illness caused by the Influenza virus and should not be confused with what is sometimes referred to as the "stomach flu" (viral gastroenteritis). Influenza causes community-wide outbreaks every winter, usually from October through May. In general, healthy children tolerate influenza well and suffer only a few days of illness. People most at risk for complications from influenza are children younger than 5 years, the elderly age 65 years and older, pregnant people, and those with certain chronic underlying medical conditions (including, but not limited to, asthma, neurological and neurodevelopmental conditions, chronic lung disease, heart disease, blood disorders, endocrine disorders, kidney disorders, liver disorders, metabolic disorders, weakened immune system, and individuals with a BMI >40).

Signs and symptoms

- Fever (typically sudden onset)
- Headache
- Muscle aches
- Cough
- Sore throat
- Runny or stuffy nose
- Chills
- Fatigue
- Vomiting
- Diarrhea

Incubation period
One to four days (usually two days)

Contagious period and spread
The influenza virus is spread from person-to-person primarily by respiratory droplets created by talking, coughing, or sneezing. These droplets can land on or be rubbed into the eyes, nose, or mouth. Droplets do not stay in the air, but can travel less than six feet and fall onto the ground. Transmission may also occur through contact with contaminated surfaces, hands, used tissues, or other articles soiled by nose and throat secretions.

People who are infected are usually contagious in the first three to four days after the onset of symptoms. Children may be contagious for longer than 10 days.

Public health reporting requirements

- Influenza-associated hospitalizations and pediatric deaths are reportable to public health.
- Report the infection to the facility director, school nurse, or child care health consultant. Child health concerns should be discussed with the school nurse or child care health consultant. Consultation with the state or local public health agency is also available.
- If the child develops more severe symptoms or experiences ongoing symptoms, they should be referred to a health care provider.
- If two or more children are experiencing symptoms of influenza or have received this diagnosis from a health care provider, this may be considered a suspect or confirmed outbreak and should be reported to state or local public health.*
- Outbreaks of influenza can cause significant increases in absenteeism among staff and students. Determining whether an influenza outbreak is occurring may be difficult in school or child care settings. However, significant increases in school absenteeism resulting from influenza-like illness should be reported to local and state public health agencies.
- More information on reportability of non-COVID-19 respiratory illnesses in schools and child care may be found here under the link titled "Guidance for Prevention & Control of Non-COVID-19 Respiratory Illnesses in School and Childcare Settings."

  *The occurrence of respiratory illness among children or students should first be considered suspect for COVID-19. If RSV or other respiratory illnesses such as influenza are circulating locally, these pathogens should also be considered suspect until testing proves otherwise. Co-infections of SARS CoV-2 and other viral respiratory pathogens can and may occur.

Control of spread
Teach children to:

- Cover their nose and mouth with a tissue when they cough or sneeze, and throw away the tissue after they use it.
- Avoid touching their eyes, nose, or mouth.
- Wash their hands frequently with soap and water, especially after they cough or sneeze; an alcohol-based hand sanitizer can be used if soap and water are not nearby.

- Avoid sharing cups and eating utensils with others.

School closure is not indicated to control spread. However, some schools may decide to close based on local considerations, such as high student/child and staff absenteeism.

Consult with local public health for assistance with implementation of control measures/school closures.

Vaccination

Everyone aged 6 months and older is recommended to receive a seasonal flu vaccine each year ideally no later than the end of October, especially people at higher risk for flu-related complications as noted above. People who live with or care for those at high risk should also receive the vaccine.

Treatment

In certain circumstances, a health care provider may prescribe influenza antiviral medications. These medications may reduce symptoms and duration of illness by one or two days and may prevent serious complications. Acetaminophen-containing medicines (such as Tylenol®) can be used to lower temperature or reduce discomfort. Anyone aged 18 years or younger who has flu or is suspected of having flu should not be given aspirin or other salicylate-containing products (such as Pepto Bismol®) as it increases the risk of Reye syndrome, a rare but very serious complication. Antibiotics are not an effective treatment for viral infections and should not be used for influenza. Those at high risk of complications or those who are experiencing warning signs of more severe illness (i.e., chest pain, shortness of breath, yellowish or leathery skin, decreased urination, confusion) should seek medical care.

Exclusion

- If a student or child presents with symptoms of respiratory illness, schools and child care centers should first defer to the guidance and exclusion criteria for COVID-19.
- If SARS-CoV-2 has been ruled out as the cause of illness and flu has been confirmed, symptomatic children and staff should be excluded from school/child care until they are fever-free for at least 24 hours without the use of fever-reducing medications (fever defined as temperature >100.4º F). Additionally, all other symptoms of respiratory illness, including cough, should be resolved or improved before returning to school or child care.
- Ill children/students/staff should be separated from others until they can be picked up/go home.

Role of teachers, caregivers, and family

- Encourage annual seasonal flu vaccination for all people aged 6 months and older.
- If you or your child is diagnosed with influenza, follow your health care provider's instructions and take all prescriptions and medications as indicated.
- Reduce crowding and touching in classrooms as much as possible during flu season.

Resources:

Influenza: Information for Schools & Childcare Providers (CDC)

Measles

What is Measles?
Measles is a highly contagious and acute viral disease caused by the Measles virus. Humans are the only natural host for the Measles virus.

Outbreaks occur when unimmunized people become infected and infect others who are not immunized. Measles is rare in this country but can result in serious complications, such as ear infections, pneumonia, seizures, brain damage, and death.

Signs and symptoms

- Fever, cough, runny nose, and red, watery eyes
- Appearance of rash at hairline spreading downward over body
- Koplik's spots (tiny white spots with bluish-white centers found inside the mouth)
- Diarrhea, pneumonia, or ear infections

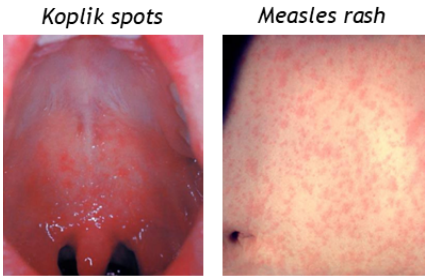


Image: cdc.gov

Incubation period
The incubation period is usually eight - 14 days (range of seven to 21 days) from exposure to onset of signs of symptoms. In rare circumstances, a person who is immunocompromised may have a longer incubation period.

Contagious period and spread

- Contagious period: From four days before the rash appears until four days after the appearance of the rash.
- Spread through airborne route: Breathing small particles containing virus floating in the air. These particles travel along air currents and can infect people in another room.
- Even brief exposure or shared airflow poses a high risk of infection for people who have not had the disease before, have not been protected by the measles vaccine, or who have a problem with their immune system.

Public health reporting requirements
Report any suspected or confirmed measles to the state or local public health agency immediately by phone. A single case of measles anywhere in the U.S. is considered to be a reportable outbreak.

Control of spread
If a child attends a school or child care facility while infectious, public health will work with the facility to provide recommendations on disease control activities and possible exclusion of un- or under-immunized students and staff.

- Measles is a vaccine-preventable infection. Immunize according to current recommendations, when a child is 12-15 months of age and with a second dose at 4 to 6 years of age. The Colorado School Immunization Rules requires students in kindergarten through 12th grades to have two measles-containing immunizations, and child care/preschool students 15 months of age to kindergarten to have one dose unless the child has an exemption to immunization. Review immunization status of all children and staff members.
- Use good hand-hygiene techniques at all times and routine infection control measures.
- Do not transfer children to other facilities.

Treatment
There is no specific treatment for measles.

Exclusion

- Exclude children with measles until four days after the rash starts when they are no longer contagious. Measles is a highly contagious infection; children suspected of having measles should be sent home immediately.
- Exclude exposed children and staff who have not been immunized (or who are incompletely immunized for their age) until they become immunized. If they are not immunized because of an exemption, exclude them until the local health department determines it is safe for them to return.
- Readmit when the following criteria have been met:
  - Four days after the beginning of the rash.
  - When the child is able to participate and staff members determine they can care for the child without compromising their ability to care for the health and safety of the other children in the group.

Role of teachers, caregivers, and family

- Encourage routine vaccination. Review and ensure all children have received measles, mumps, and rubella (MMR) vaccine according to current immunization recommendations.
- Report the infection to the local or state health department. If the health professional who makes the diagnosis does not inform the local health department that the infected child is a participant in a child care program or school, this could delay controlling the spread.
- Report the infection to the staff member designated by the child care program or school for decision-making and action related to the care of ill children. That person, in turn, alerts possibly exposed family and staff members and parents/guardians of unimmunized children to watch for symptoms and notifies the health consultant.
- Ensure staff members who have had fewer than two doses of vaccine are properly immunized unless documented to have had the disease or were born before 1957. Individuals born before 1957 are presumed to be immune because measles was so widespread before vaccine became available, although being in this group is not a guarantee of immunity. A laboratory test is available for testing immunity.
- During investigation of a suspect case, exposed children with weakened immune systems or who have not received MMR vaccine routinely may be excluded from the facility. In an outbreak, if public health makes a recommendation, infants aged 6 - 11 months can be immunized and then re-immunized at the age-appropriate time. The immunization at 12 months is still necessary because the child's immunity from the previous dose of vaccine may be blocked by the mother's measles antibodies that cross the placenta during pregnancy and are present in the child for a year.

Resources

Measles (CDPHE)

Molluscum contagiosum

What is Molluscum contagiosum?
Molluscum contagiosum is caused by a pox virus and causes a mild skin disease similar to warts. It is characterized by small, pearly, flesh-colored bumps with a tiny, hard, central depression that may be itchy.

Signs and symptoms

- Two to 20 discrete flesh-colored papules
- Lesions on adults are usually found on the lower abdomen, pubis, and inner thigh
- Lesions on children are usually on the trunk, face, and arms
- Occasionally the lesions may appear linearly due to patient scratching

Image: aad.org

Incubation period
Ranges from two to seven weeks and may take as long as six months

Contagious period and spread

- The virus is spread from person-to-person through direct and indirect physical contact. Direct contact may be either through play, rough housing, touching, or sexual contact. Indirect contact is when the lesions (virus) come in contact with towels, toys, or clothing, and another person uses those items prior to cleaning.
- It is not known how long a person is infectious. However, it is presumed to be as long as the lesions are present.

Public health reporting requirements

- Report the infection to the facility director or school nurse.
- Report the infection to the local or state health department only if two or more cases are identified within seven days of diagnosis of the first case as this may be an outbreak.

Control of spread

- Encourage frequent and proper handwashing.
- Scratching the bumps should be avoided as that can spread the virus to another site or allow bacteria to enter.
- Make sure all lesions are covered by clothing. If lesions are not covered by clothing, make sure to cover with a water tight bandage.
- If a child with growths in the underwear/diaper area needs assistance going to the restroom or needs a diaper change, then the lesions in this area need covering, too, if possible.
- All infected individuals should not participate in contact sports as long as the lesions are present.
- Activities that use shared gear should be avoided unless the lesions can be covered.
- Swimming should also be avoided unless the lesions can be covered with a water tight bandage.
- Do not share items such as hair brushes, unwashed clothes, soap, and towels.
- If the lesions are in the pubic area, avoid sexual contact until seen by a health care provider.
- Consult with local or state public health for help with implementation of control measures.

Treatment
There is generally no treatment required as the lesions usually go away on their own within six months. However, this may take up to four years. When a therapy is recommended by a health care provider, the physical destruction of the lesions should be done in a physician's office. Do not follow any treatment methods that are not directly recommended by a physician.

Exclusion
Exclusion is not necessary.

Role of teachers, caregivers, and family

- Use and encourage regular hand hygiene.
- Do not let children pick or scratch bumps.

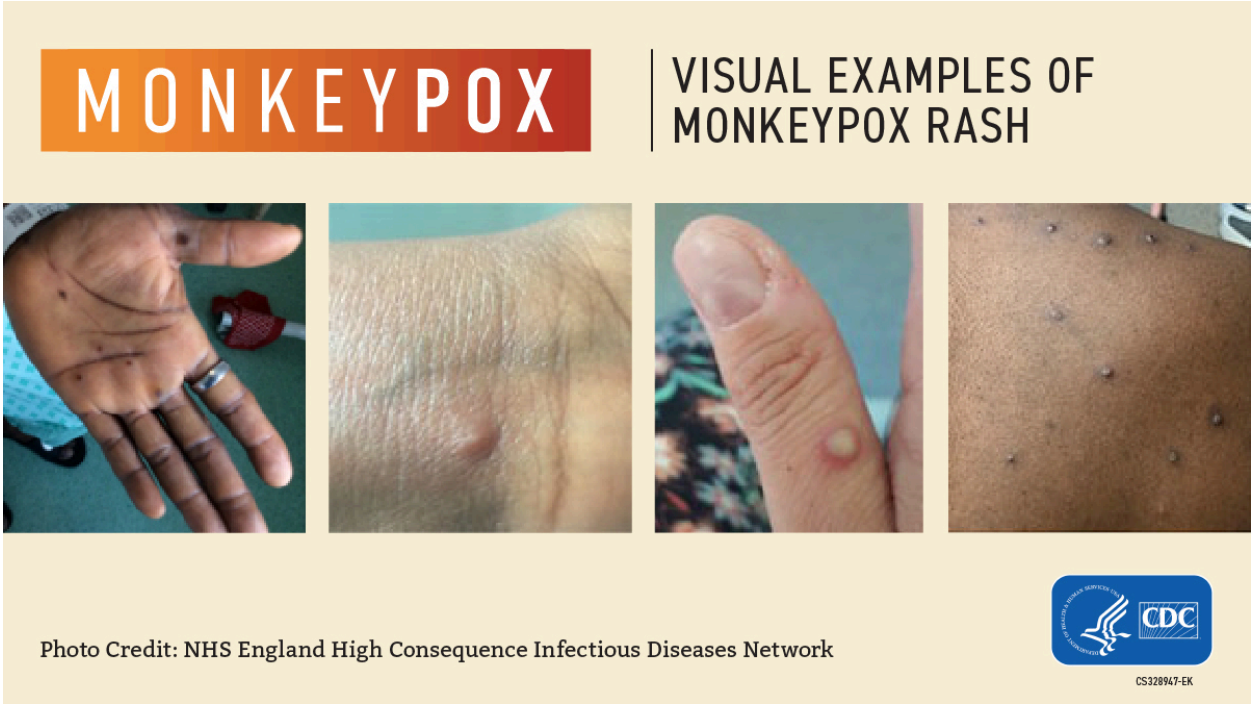
Mpox

What is mpox?
Mpox is a disease caused by infection with the mpox virus, which is a type of orthopoxvirus. Mpox symptoms typically last two to four weeks and generally resolve on their own. Mpox is rarely deadly. However, it can cause painful skin lesions which may require pain management. At this time, the risk of mpox to children and adolescents in the United States is low. In the 2022 outbreak, most cases of mpox have been associated with sexual contact; however mpox can infect anyone — including children — if they have close, often skin-to-skin contact with someone who has mpox. Vaccines for post-exposure prophylaxis and antivirals for treatment are available when indicated.

Signs and symptoms

- The most common sign of mpox in children and adolescents is a rash that progresses from maculopapular lesions (flat spots to patches), to vesicles (blisters), pustules (pus-filled blisters), ulcers, and finally scabs. Someone may have skin lesions in various stages of progression at any given time. The rash may appear at any time in relation to other symptoms listed below (e.g., before, during, or after) and some people may only have a rash.
- Fever/chills.
- Headache.
- Muscle aches and backache.
- Swollen glands (lymph nodes).
- Profound fatigue.

Mpox rash can be confused with other rash illnesses that are seen in children, including scabies; varicella (chickenpox); hand, foot, and mouth disease; measles; molluscum contagiosum; herpes; syphilis (including congenital syphilis); allergic skin rashes; and drug eruptions. Co-infections with mpox are possible (e.g., scabies AND mpox presenting in the same child), so a full evaluation by a health care provider is important.



Incubation period
Mpox symptoms usually start within one to two weeks of exposure to the virus.

Contagious period and transmission
Mpox is transmitted primarily through direct contact) with the rash, scabs, or body fluids of someone with mpox. It can also be transmitted by exchanging respiratory secretions during prolonged, face-to-face contact, kissing, or during intimate skin-to-skin physical contact. In the 2022 outbreak, most cases of mpox have been associated with sexual contact. Although less common, mpox may also be transmitted by touching contaminated objects (such as toys or

eating utensils), fabrics (clothing, bedding, sleeping mats, or towels), and surfaces that have been used by someone with mpox. The virus can also be transmitted to a fetus through the placenta in people who are pregnant.

People with mpox are contagious until the rash has fully healed: when scabs have all fallen off and a fresh layer of new skin forms where a lesion had been.

Transmission during brief interactions (such as a brief conversation), between people in close proximity and for a long duration (such as passengers seated near a person with monkeypox on an airplane), or during health care encounters, have not been reported in the United States. Scientists are still researching if the virus can be transmitted when someone has no symptoms.

Control of transmission

General information:

- Anyone can be infected with mpox if they have close, skin-to-skin, personal contact with an infected person. However, at this time, the risk in schools and early childhood settings is low.
  - It is important to avoid close, skin-to-skin contact with someone with a new unexplained rash, especially if that person was previously exposed to mpox.
  - People with chronic skin conditions that are unchanged do not require additional precautions. However, they may be at increased risk for severe disease if they are exposed to or develop mpox.
- At this time, there is no need for widespread vaccination for mpox among children or staff at K-12 schools or early childhood settings. However, a vaccine is available following certain types of exposures that can help prevent mpox if it is given soon after exposure. Vaccination should be considered on an individual basis in consultation with a health care provider and the health department.
- Teachers, staff, and children should wash their hands often with soap and water or use hand sanitizer.
  - Ensure access to soap and water or hand sanitizer with at least 60% alcohol at all times.
  - Hand hygiene should occur immediately after contact with a lesion on a person with mpox, or with potentially contaminated items.
- Most children can attend school and other school-related activities even if they have had close contact with someone with mpox as long as they remain asymptomatic.
  - Activities and setting types with regular close or skin-to-skin contact, such as wrestling or Early Childhood Education (ECE), pose an increased risk of transmission. Exposed people with a new rash consistent with mpox should be evaluated by a health care provider prior to participation in group activities. In some high-risk cases, it may be appropriate for exposed persons to limit their participation in certain activities.
- Settings that have children or adolescents in residence, like boarding schools, overnight camps, or other residential environments, should follow considerations for congregate settings.

If a child or caregiver develops a rash:

- Currently, the risk of mpox to children and adolescents is low. Several illnesses can cause a rash and fever in children, such as hand-foot-mouth disease and chickenpox (varicella).
- For a child without a known exposure to mpox, a fever and rash should be evaluated by a medical professional and settings should follow their standard illness policies for these situations. A health care provider can determine what treatment or testing the child needs.
- It is important to avoid stigma and fear-based exclusion.
- If a child has a known exposure to mpox (i.e., is being monitored for mpox) and develops symptoms, follow information found in CDC's Mpox Toolkit for Schools and Early Care and Education Programs.
- There are also multiple potential causes of rashes in adults. Parents, teachers, and staff members should understand the symptoms of mpox and see a health care provider if they remain concerned. Adults with symptoms of mpox should also:
  - Avoid close contact, including sex or being intimate with anyone, until they have been checked out by a health care provider.
  - Wear a well-fitting mask when they see a health care provider and remind them that this virus is circulating in the area.

If a child or caregiver is diagnosed with mpox

- Isolation recommendations:

  - Caregivers of children with mpox should prioritize isolation and prevention practices until all scabs fall off and a fresh layer of healthy skin forms. This may take as long as four weeks after symptoms begin. Caregivers should work with a health care provider and the health department to decide when the child or adolescent can return to the educational setting.
  - Teachers, staff, and volunteers who have mpox should isolate and be restricted from the workplace according to CDC's isolation and prevention practices. Employers should provide flexible, non-punitive sick leave policies for teachers and staff members.

- Infection prevention and disinfection:
  - Avoid contact with objects and materials that a person with mpox has used.
    - Do not share eating utensils or cups with a person with mpox.
    - Do not share, handle, or touch the bedding, towels, or clothing of a person with mpox.
  - Clean and disinfect the areas where anyone with monkeypox spent time.
    - Avoid activities that could spread dried material from lesions (e.g., use of fans, dry dusting, sweeping, or vacuuming) in these areas.
    - Perform disinfection using an EPA-registered disinfectant which may be found on EPA's List Q. CDPHE has a list of commonly used, approved products. Follow the manufacturer's directions for concentration, contact time, and care and handling.
    - Linens can be laundered using regular detergent and warm water (water should reach 140 degrees Fahrenheit). Soiled laundry should be gently and promptly contained in a dedicated laundry bag and never be shaken or handled in a manner that may spread infectious material.
    - Staff who are cleaning and disinfecting the environment where someone with mpox spent time or handled their linens should wear personal protective equipment. At a minimum, staff should wear disposable medical gloves and a respirator or well-fitting mask (covering both the nose and mouth). If a disposable gown is not available, clothing should fully cover the skin and then immediately be laundered.
    - Linens and clothing that cannot be laundered on site should be placed immediately in a secure plastic bag and sent home with the child or caregiver to be laundered.
    - Consult with local or state public health to discuss implementation of proper cleaning measures.

- Exposure notification:
  - It's important to notify parents, guardians, and caregivers of close contacts that they may have been exposed to mpox as soon as possible, so they can watch for signs and symptoms, get tested and isolate if they have symptoms, and consider getting vaccinated if indicated.
  - Child care facilities and schools should contact their local health department for further assistance if a case is identified. Typically, local health departments will lead mpox contact tracing efforts to identify and notify people exposed, determine the exposure type, and provide recommendations on next steps, including whether post-exposure prophylaxis (PEP) should be considered. If requested, child care facilities and schools should support the local health department in contact tracing efforts.
    - Child care facilities and schools may use these exposure notification templates based on exposure determinations made in collaboration with public health:
      - Low risk exposure: Low-risk exposure letter
      - Intermediate/high risk exposure: Intermediate/high-risk exposure letter
  - People in schools and child care settings who are not considered exposed (which can be determined upon discussion with the local health department) do not need to be notified of mpox cases on campus.
    - Dissemination of any campus or facility-wide notification should be strongly weighed against the possibility of inadvertently disclosing protected health information and perpetuating stigma.

Public health reporting requirements

- Laboratory confirmed cases of mpox are required to be reported to public health. Schools and child care settings should also report suspected cases of mpox to public health if the person has a known exposure to a confirmed case of mpox.
- Report the infection to the facility director, school nurse, or child care health consultant. Child health concerns should be discussed with the school nurse or child care health consultant. Consultation with the state or local public health agency is also available.

Treatment

People with mpox and people exposed to mpox should be urgently evaluated by a public health or a health care provider to determine whether treatment or post-exposure prophylaxis (PEP) is needed. People with symptoms should be urgently evaluated by a health care provider to determine if they need testing and/or treatment.

Children and adolescents with exposure to people with suspected or confirmed mpox may be eligible for post-exposure prophylaxis (PEP). A vaccine, Jynneos, is available for preventing mpox infection in specific post-exposure cases. Vaccination after known or presumed exposure to someone with mpox should occur ideally within four days, but may be given up to 14 days following exposure. Other PEP options may be considered in very young children.

Currently, there is no treatment approved specifically for mpox virus infections. However, antivirals developed for use in patients with smallpox may prove beneficial against mpox.

Antivirals, such as tecovirimat (TPOXX), may be recommended for people with severe disease, people at risk for severe disease (e.g., people who are immunocompromised), or in people who have lesions in anatomic areas that may present a special hazard (e.g., eyes, anus, genitalia). Children, especially those under 8 years of age, and children with a history of skin conditions such as atopic dermatitis and other exfoliative skin conditions may be at higher risk of more severe disease. More information can be found in CDC's Patient's Guide to Mpox Treatment with Tecovirimat (TPOXX).

Exclusion

- EXCLUDE all children, staff, and caregivers with symptoms or a rash suspicious for mpox until an evaluation can take place with their primary care provider or other qualified health care provider. People without a health care provider can review CDPHE's list of locations providing mpox testing.
- People with mpox should prioritize isolation and prevention practices until all scabs fall off, and a fresh layer of healthy skin forms. This may take as long as four weeks after symptoms begin. Caregivers should work with a health care provider and the local health department to decide when the child or adolescent can return to the educational setting.
- Staff or volunteers who have mpox should isolate and be restricted from the workplace according to CDC's isolation and prevention practices.
- Employers should provide flexible, non-punitive sick leave policies for staff members.
- Child care facilities and schools may use this isolation letter template to provide isolation guidance and resources: Isolation guidance letter

Monitoring

- Most people exposed to mpox can continue their routine daily activities (e.g., go to work or school) as long as they do not have signs or symptoms consistent with mpox.
- Anyone with an exposure to someone with mpox should monitor their health or be monitored for signs or symptoms consistent with mpox for 21 days after their last exposure.
- If a staff member or volunteer under monitoring for mpox develops symptoms, whether at home or while in the setting, they should isolate at home and be medically evaluated.
- CDC has guidance for monitoring and risk assessment for persons exposed in the community. State or local public health can help facilitate monitoring.

Role of teachers, caregivers, and family

- If a child or adolescent develops symptoms while in a school, early childhood education, or other setting:
  - The child should:
    - Be separated from other children or adolescents in a private space (such as an office).
    - Wear a well-fitting mask (if the child is at least aged 2 years).
    - Be picked up by a parent/guardian/caregiver, so they can have a medical assessment.
  - Staff who are monitoring a child or adolescent should:
    - Avoid close contact, if possible, but continue to attend to the child in an age-appropriate manner (for example, changing soiled diapers, calming an upset toddler).
    - Avoid touching the rash, if present, and cover the rash area with clothing if possible.
    - Wear a respirator (preferred) or a well-fitting mask if not available.
    - If close contact is required (for example, holding the child), gowns/smocks and gloves should be used if available.
    - Wash hands routinely and after the child has been picked up or touched.

    - Change, and launder, or throw away any soiled clothes, gloves, or gowns/smocks.
- Areas where a person with mpox spent time should be cordoned/blocked off until they can be cleaned and disinfected per the above recommendations prior to resuming normal classes or activities in that area.
- Susceptible pregnant teachers/caregivers and pregnant parents/guardians of children in child care and school settings should be particularly vigilant to avoid contact with people who have a suspicious rash or symptoms of mpox, or any other viral illness.

Resources

Mpox: Schools, ECE Programs, and Other Settings Serving Children or Adolescents | CDC

Mononucleosis

What is mononucleosis?
Mononucleosis is caused by the Epstein-Barr virus (also called EBV or human herpesvirus 4) and sometimes by other viruses such as cytomegalovirus (human herpesvirus 5) and roseola (human herpesvirus 6). The illness is commonly known as *mono* and is characterized by swollen lymph glands, sore throat, and fever lasting from one to four weeks. Enlargement of the spleen can occur, as well. Some infected children do not have symptoms or develop very mild symptoms, but 35 - 50% of adolescents or young adults develop infectious mononucleosis. The disease is most common in high school and college-aged children.

Signs and symptoms
- Usually mild or no signs or symptoms, especially in young children
- Swollen lymph glands (lymph nodes)
- Fever
- Sore throat
- Fatigue
- Enlarged liver and spleen
- Rash may occur in those treated with ampicillin or other penicillins

Incubation period
Estimated to be 30 to 50 days for EBV

Contagious period and spread
- Mononucleosis is spread person-to-person through saliva.
- Individuals with mononucleosis can excrete the virus for a period of weeks or months after initial infection. The virus can be present over the lifetime of a person with an infection in the throat or blood cells. Most people who have had a previous infection are not susceptible to a second infection.

Public health reporting requirements
Individual cases are not reportable. The school nurse or child care health consultant should be contacted for specific concerns. Consultation with the local or state health department is available.

Control of spread
- Suspect cases with severe tonsil and throat swelling should be referred to a health care provider.
- Dispose of tissues soiled with throat secretions.
- Encourage frequent handwashing.
- Promptly sanitize contaminated articles soiled by throat secretions. See Disease Prevention: The Facility Environment.
- Avoid kissing that involves the transfer of saliva directly or indirectly through objects.
- Consult with local or state public health with implementation of control measures.

Treatment
There is no specific treatment for mononucleosis, other than treating the symptoms. Over-the-counter medications can provide some relief from fever or sore throat. A health care provider may prescribe steroids to control severe swelling of the tonsils and throat.

Exclusion
Exclusion is not necessary.

Role of teachers, caregivers, and family
- Use and encourage good hand-hygiene techniques.
- Clean and sanitize toys and utensils before they are shared.
- Ensure all students/children have their own toothbrushes, cups, and utensils.
- Avoid kissing children on the mouth.

Methicillin-resistant Staphylococcus aureus (MRSA) and Staphylococcus aureus

What is methicillin-resistant Staphylococcus aureus (MRSA) and Staphylococcus aureus?
Staphylococcus aureus (often referred to as "staph") is a type of bacteria commonly found on the skin or in the nose of healthy people (referred to as colonization). Staph is a common cause of skin infections, but it can also cause serious infections, such as surgical wound infections, bloodstream infections, and pneumonia, most frequently among patients in health care settings. Some staph bacteria are resistant to certain classes of antibiotics. These resistant bacteria are called methicillin-resistant Staphylococcus aureus, or MRSA. Historically, MRSA infections occurred in hospitalized patients, but now these infections are also common in the community. People who have MRSA infections acquired in the community typically have infections of the skin.

Signs and symptoms

- Carriers have no signs or symptoms.
- Signs and symptoms will vary by the type of infection.
- In child care and school settings, most staph and MRSA infections are skin or soft tissue infections that may appear as pustules or boils, which are often red, swollen, painful, and/or have pus or other drainage.
- Often, MRSA skin and soft tissue infections may look like spider or insect bites. Pictures of MRSA skin and soft tissue infections can be found on CDC's website.

Incubation period
Variable; depends on the type and severity of infection

Contagious period and spread
MRSA and other staph bacteria are usually spread from person-to-person by direct skin-to-skin contact, or contact with a contaminated item (such as towels or bandages) used by someone with MRSA or staph on their skin. People who have draining skin infections are more likely to spread MRSA and staph.

Public health reporting requirements

- Report the infection to the facility director, school nurse, or child care health consultant.
- Individual cases of MRSA skin or soft tissue infections are not reportable to public health.
- Suspected outbreaks of all types (including staph and MRSA) are reportable to state or local public health. Outbreaks have been documented in school sports teams, such as football and wrestling teams.

Control of spread

- Use standard precautions (e.g., hand hygiene before and after contact, wearing gloves) when caring for broken skin (open wounds) or potential infections.
- Use barriers such as gowns, masks, and eye protection if splashing or other contact with potentially infected body fluids is anticipated.
- In general, it is not necessary to close entire facilities to "disinfect" them when MRSA infections occur. Routine cleaning practices are enough in most situations.
- MRSA skin infections are transmitted primarily by skin-to-skin contact and by contact with surfaces that have come into contact with someone else's infection.
- Spread can be prevented by simple measures such as hand hygiene and covering wounds.

Treatment
Treatment for staph and MRSA will vary by the type and location of infection. People infected with staph or MRSA should seek care from a health care professional so proper treatment can occur.

Exclusion
Exclusion is only required if:

- The health care provider instructs exclusion.
- There is wound drainage that cannot be covered and contained with a clean, dry bandage.
- They cannot maintain good personal hygiene.
- Athletes:
  - If sport-specific rules do not exist, in general, athletes should be excluded if wounds cannot be properly covered during participation. (The term "properly covered" means that the skin infection is covered by a

securely attached bandage or dressing that will contain all drainage and will remain intact throughout the activity.) If wounds can be properly covered, good hygiene measures should be stressed to the athlete, such as performing hand hygiene before and after changing bandages, and throwing used bandages in the trash.

- Athletes with active infections or open wounds should not use whirlpools, therapy pools, and other water facilities like swimming pools until infections and wounds are healed.

Role of teachers, caregivers, and family

- Use and encourage good hand-hygiene techniques.
- Use standard precautions when cleaning or touching open sores or lesions.
- Cover red or draining skin lesions.

Resources

MRSA | Fact sheets and letter templates (CDPHE)

Mumps

What is Mumps?
Mumps is caused by a virus and is usually more severe in adults. Mumps typically starts with a few days of fever, headache, muscle aches, tiredness, and loss of appetite, and is followed by swelling of salivary glands. The most common complication in adolescent and adult males is swollen testicles. However, mumps rarely leads to sterility. Other complications may include meningitis (inflammation of the tissue surrounding the brain and spinal cord), inflammation of the ovaries, and deafness. Approximately one-third of individuals infected with mumps do not develop symptoms but are contagious.

Signs and symptoms
- Swollen glands in front of and below the ear or under the jaw
- Fever (usually low-grade)
- Headache
- Earache
- Muscle aches
- Lack of appetite
- In males, painful swelling of the testicles may occur. Females may have swelling of the ovaries, which may cause abdominal pain.

Image: cdc.gov

Incubation period
12-25 days (usually 16-18 days)

Contagious period and spread
- A person is contagious from two days before to five days after swelling onset.
- Transmission is by nose/throat secretions and direct contact with saliva from an infected individual. Infected individuals who do not have symptoms can still infect others.

Public health reporting requirements
- Report confirmed or suspect mumps to the facility director, school nurse, or child care health consultant.
- Confirmed and suspected cases should be reported to the local or state health department within four days of diagnosis.

Control of spread
- Mumps virus vaccine is routinely given at 12-15 months of age in combination with measles and rubella (MMR) vaccine and sometimes varicella vaccine (MMRV) with a second dose recommended at age 4-6 years. The Colorado School Immunization Rules requires children to have two mumps immunizations prior to school entry, and child care/preschool children 15 months of age to kindergarten are required to have one dose of mumps vaccine, unless the child has an exemption to immunization.
- Recommend mumps vaccination for children and staff without mumps immunization or positive immunity lab results. Post-exposure vaccination may not protect against the disease but may provide protection against future exposure.

Treatment
There is no specific treatment for mumps.

Exclusion
- EXCLUDE all infected students/children and/or staff until five days after swelling onset.
- Children should not transfer to new schools or facilities during the exclusion period.
- Exclusion of unimmunized children may be considered in consultation with your local public health department. If unimmunized, exposed children are excluded for this reason, they may be readmitted once they receive the mumps vaccine. If they remain unimmunized, they should be excluded until at least 26 days after onset of swelling of the last case.

Role of teachers, caregivers, and family
- Encourage routine vaccination. Review and ensure all children have received measles, mumps, and rubella (MMR) vaccine according to current immunization recommendations.

- Report the infection to the local or state health department. If the health professional who makes the diagnosis does not inform the local health department that the infected child is a participant in a child care program or school, this could delay controlling the spread.
- Report the infection to the staff member designated by the child care program or school for decision-making and action related to the care of ill children. That person will work with public health to alert possibly exposed family and staff members and parents/guardians of unimmunized children to watch for symptoms and notify the health consultant.

Resources
Mumps (CDPHE)

Norovirus and other viral gastroenteritis

What is viral gastroenteritis?
Often referred to as "stomach flu" (a misnomer, as it is not caused by the influenza virus) these viruses include adenovirus, calicivirus, astrovirus, and norovirus and are the leading cause of foodborne illness in the United States. Viral gastroenteritis is common year-round, but it is seen more often in the winter months (November — April). Animals do not carry or spread this type of bacteria.

Signs and symptoms
- Low-grade fever
- Abdominal cramps
- Diarrhea
- Vomiting
- Nausea
- Headache
- Body aches

Incubation period
Varies depending on the specific virus, but often one to three days.

Contagious period and spread
Viral gastroenteritis is highly contagious and spreads mainly through the fecal→oral route, either by consumption of fecally-contaminated food or water, or by direct person-to-person spread. It may also be spread by touching contaminated surfaces or objects and then touching your mouth, placing contaminated objects in your mouth (pacifier, toys, cigarettes, etc.), or inhaling virus particles that have been released into the air when a person with infection vomits.

People infected with norovirus and other viral gastroenteritis are most contagious while symptomatic and for several days after symptoms resolve. However, studies have shown that you can still spread these viruses for several weeks after symptoms have resolved.

Public health reporting requirements
- Single cases of illness do not need to be reported to public health.
- Clusters of illness (such as two or more people ill with similar symptoms closely grouped in terms of time and place) should be reported to the state or local public health agency immediately as this could be an outbreak. Generally speaking, it is considered an outbreak if there is an increase in the number of ill children and/or staff members at the school or child care center, or two or more cases from different households.

Control of spread
- Consult with local or state public health on implementation of control measures.
- Immediately throw away any food handled or prepared by an ill person.
- Encourage and teach the importance of frequent handwashing, especially after using the toilet, changing diapers, and before eating. Sample signs showing when and how to wash hands are included at the end of this document. Post them or similar signs throughout the child care center or school to remind people to wash their hands.
- Ensure all handwashing facilities have soap and paper towels.
- Hand sanitizing gels or wipes are not as good at cleaning the hands as proper handwashing. Some are ineffective against norovirus.
- Immediately clear the room or area after a public display of vomiting.
- People cleaning up vomit/fecal material are encouraged to wear disposable gloves, mask, and gown/coverall to avoid direct contact with vomit/fecal material. Review the Clean-up Procedures for Vomit and Diarrheal Accidents guidance.
- Noroviruses are resistant to many commonly used disinfectants. If norovirus is suspected, it is important to use at least 5,000 part per million (ppm) bleach solution (one cup bleach and 10 cups of water) or a disinfectant approved by the EPA with specific claims for activity against norovirus. A list of EPA-registered disinfectants effective against norovirus is available on the EPA's website under "List G: EPA's Registered Antimicrobial Products Effective Against Norovirus." For help mixing disinfectants, refer to the Bleach Dilution Calculator Tool in the online "Fact sheets and letter template" folder.

- Most commercial disinfection products are not intended for use on heavily soiled surfaces. Safely remove the bulk of organic material, then wash with detergent and rinse with water prior to disinfection. Refer to Disease Prevention: The Facility Environment for disinfection guidance.
- Food contact surfaces and items that may be placed in the mouth must be washed with detergent, rinsed with water, and sanitized following the use of strong disinfectants.
- Items that can be laundered (towels, sheets, clothes, toys, etc.) that are contaminated during a fecal or vomit accident should be washed in hot water (>140° F) with detergent and bleach (or a laundry disinfectant product effective against norovirus) and dried in a hot dryer (> 140° F).
- People with severe or prolonged diarrhea (lasting longer than two to three days) or who have a high fever or bloody diarrhea should be referred to a health care provider.
- Alert possibly exposed family and staff members to watch for symptoms and provide them with prevention tips. See recommendations for caregivers and family section below.

Treatment

Most people with healthy immune systems will recover without treatment in one to three days. There is no specific treatment for viral gastroenteritis although fluids are important to prevent dehydration. No immunization is available.

Exclusion

- EXCLUDE all infected children and/or staff until at least 48 hours after diarrhea and vomiting symptoms have resolved.
- Infected students or staff who handle food must not prepare food for others until they have been symptom-free for at least 48 hours.
- During an outbreak, exclusion may be extended to 72 hours after symptom resolution.

Role of teachers, caregivers, and family

- If your child or a child you care for is infected with norovirus or other viral gastroenteritis, follow the advice of the child's health care provider.
- Norovirus is HIGHLY contagious. Good handwashing using warm water, soap, and paper towels is one of the best ways to prevent the spread of GI illness, especially after changing diapers, going to the bathroom or helping a child go to the bathroom, or handling food. Most hand sanitizers don't work against norovirus and should not be used instead of proper handwashing with soap and hot water.

Resources

Norovirus Illness: Key Facts (CDC)

Pertussis (whooping cough)

What is Pertussis (whooping cough)?
Pertussis, also known as whooping cough, is a contagious bacterial infection caused by *Bordetella pertussis*. Pertussis may be severe in infants and young children, resulting in hospitalizations, pneumonia, neurologic problems, and death. The cough may last as long as three months. Pertussis may not be as severe in adults and fully immunized children.

Signs and symptoms
- Begins with cold-like symptoms, including mild cough and low-grade or no fever
- Cough becomes more severe, causing coughing spells or fits
- Coughing spells may be followed by vomiting, difficulty catching breath, face turning blue, and/or high-pitched whoop
- Appears well between coughing spells

Incubation period
Incubation period ranges from five to 21 days; usually seven to 10 days

Contagious period and spread
- A person is most contagious in the early stages of the disease and will remain contagious for 21 days after coughing begins, or after five days of appropriate antibiotic treatment has been completed.
- Bacteria that cause pertussis are spread by direct contact with respiratory droplets of a person with infection. Respiratory droplets that form when a child talks, coughs, or sneezes do not stay in the air, but they may travel up to three feet and can infect others when they land on or are rubbed into eyes, noses, or mouths.

Public health reporting requirements
- Report confirmed and suspected pertussis to the facility director, school nurse, or child care health consultant.
- Report the infection to the state or local public health agency by phone within one working day of a suspected or confirmed diagnosis.
- Contact state or local public health agencies for assistance if the school or child care facility plans to notify parents/guardians about a case of pertussis in the facility.

Control of spread
- Monitor incompletely immunized children and staff members for respiratory signs or symptoms, and recommend treatment if cough develops within 21 days of exposure to pertussis.
- An antibiotic to prevent infection is frequently recommended for child care/preschool classroom contacts and rarely recommended for school classroom contacts.
- Pertussis vaccination after exposure will not prevent infection. However, it may provide protection against future exposure. Review pertussis immunization records and recommend DTaP or Tdap vaccines for under-immunized students/children and staff.
- Follow the most recent ACIP immunization recommendations for children and adults.
  - Children >2 months should receive five doses of DTaP by 4-6 years of age, or four doses if the fourth dose is given >4 years of age and the dose is administered six months after the previous dose.
  - Children >10 years and adults should receive one pertussis booster (Tdap). (In Colorado, Tdap is required at sixth-grade entry, so a 10-year-old student will need Tdap.) Tdap can be given as early as 7 years of age to complete an incomplete series of DTaP.
- The Colorado School Immunization Rules require all children aged 3 months and older to have begun their pertussis immunization series or submit an exemption to immunization.

Treatment
Pertussis is treated with antibiotics. Early treatment of pertussis is very important. The earlier a person, especially an infant, starts treatment the better. If a patient starts treatment for pertussis early in the course of illness, during the first one to two weeks before coughing paroxysms occur, symptoms may be lessened.

Exclusion
- Pertussis is a highly contagious illness for which routine exclusion of infected children is warranted. Exclude infected children/students and close contacts (including siblings, caregivers, and teaching staff) who are coughing until they receive appropriate evaluation and treatment with antibiotics.

- Readmit after five days of appropriate antibiotic treatment or until 21 days after the onset of cough (whichever is first).
- Readmit the student/child or staff member once cleared to return by a health professional or they no longer meet exclusion criteria, AND when the child is able to participate and the staff members determine they can care for the child without compromising their ability to care for the other children in the group.

Role of teachers, caregivers, and family

- Encourage routine vaccination. Review and ensure all children have received the pertussis-containing vaccine according to current immunization recommendations.
- Report the infection to the local or state health department. If the health professional who makes the diagnosis does not inform the local health department that the infected child is a participant in a child care program or school, this could delay controlling the spread.
- Report the infection to the staff member designated by the child care program or school for decision-making and action related to the care of ill children. That person, in turn, alerts possibly exposed family and staff members and parents of unimmunized children to watch for symptoms and notifies the health consultant.

Resources

Pertussis: School and health professionals (CDPHE)

Pink eye (Conjunctivitis)

What is pink eye (Conjunctivitis)?

Pink eye (Conjunctivitis) is inflammation (i.e., redness, swelling) of the thin tissues covering the white part of the eye and inside of the eyelids. Pink eye can be caused by a variety of bacterial, viral, and fungal pathogens, as well as allergies (such as pollen, mold, or cosmetics), contact lens use, indoor or outdoor air pollution (such as smoke or dust), and chemical irritation (such as after swimming, or exposure to chemical fumes). Pink eye is common in children and adults, and it can be difficult to determine the exact cause.

Signs and symptoms

- Excess amount of blood in the whites of the eye and eyelid, giving the eye a pink or red appearance
- Eye itchiness, irritation, swelling, watery, light sensitivity, and/or burning
- *Bacterial or viral*: One or both eyes can be affected. There is usually a discharge (thicker, whitish-yellowish in bacterial infections) from the eye. Respiratory infection symptoms or swollen lymph nodes near the front of the ear may be present. Bacterial pink eye symptoms can last a couple of days to three weeks, but generally symptoms improve in two to five days without treatment. Viral pink eye symptoms can last from one to three weeks or more.
- *Allergies*: Usually both eyes are affected. Symptoms like itchy nose, sneezing, or scratchy throat may be present, and symptoms may be seasonal. Typically symptoms clear once the allergen is removed.
- *Chemical irritation*: One or both eyes can be affected.

Incubation period

Bacterial: Unknown because the bacteria that cause it are commonly present in most individuals and do not cause infection

Viral: Variable

Allergies or chemical irritation: Variable

Contagious period and spread

Bacterial and viral: Can be easily spread by direct contact with discharge from the eye of a person with infection or by direct contact with objects contaminated with eye discharge. Contaminated fingers, clothing, towels, shared eye makeup applicators, etc., may spread the infection.

Bacterial: People with infection are contagious as long as they have symptoms or until antibiotic eye drops or ointment are started.

Viral: Some types are contagious as long as a person has symptoms (which can be variable).

Allergies or chemical irritation: Not contagious.

Public health reporting requirements

- Individual cases are not reportable.
- Suspected outbreaks of pink eye are reportable to state or local public health.
- If two or more children from separate families in one classroom have red eyes with watery discharge, consult with public health to prevent further spread.

Control of spread

- Encourage frequent handwashing.
- Avoid touching or rubbing eyes and avoid sharing personal items.
- Ensure good cleaning and sanitizing practices are being followed. See Disease Prevention: The Facility Environment.

Treatment

Bacterial: A health care provider may prescribe antibiotic eye drops or topical ointment. Antibiotic treatment will generally speed recovery and reduce spread to others.

Viral: There is usually no treatment.

Chemical irritation: Symptoms generally resolve once the irritant is removed.

Allergies: May be treated with allergy medications.

Exclusion
Children do NOT need to be excluded for pink eye unless the child meets other exclusion criteria, such as fever or behavioral change.

Role of teachers, caregivers, and family

- Report the infection to the staff member designated for decision-making and action related to care of ill children. That person, in turn, alerts possibly exposed family and staff members to watch for symptoms.
- Parents/guardians should consult with the child's health care provider about diagnosis and treatment.
- Complete all medications as prescribed.

Pinworm

What are pinworms?
Enterobius vermicularis is a small thin white roundworm (nematode) that lives in the large intestine. While a person with infection sleeps, female pinworms leave the intestine through the anus and deposit their eggs on the surrounding skin.

Signs and symptoms
- Most people have no signs or symptoms
- Itching and irritation around the anal or vaginal area
- There is the potential for a secondary infection of scratched sites
- Noticeable worms seen in the perianal region two to three hours after child goes to sleep

Incubation period
One to two months (or longer) from the ingestion of an egg until the adult females are noticeable in the perianal region

Contagious period and spread
- Pinworm infections are spread through direct transfer of eggs through the fecal→oral route, or indirectly through clothing, bedding, food, or other articles contaminated with the parasite eggs. A dust-borne infection is possible in heavily contaminated areas.
- A person is infectious as long as eggs are present on the perianal skin. Eggs remain infective in an indoor environment for about two to three weeks.

Public health reporting requirements
- Individual cases are not reportable to public health.
- Report the infection to the facility director or school nurse.
- If more than one child is ill, refer them to a physician and contact public health as this may be an outbreak.

Control of spread
- Educate children and staff on good personal hygiene, particularly the need for handwashing before eating and food preparation.
- Keep fingernails as short as possible.
- Make sure those infected with pinworms, as well as household contacts and caregivers, are receiving proper treatment.
- Daily bathing in the morning with showers or stand up baths is recommended over sit-down bathing in a bathtub. Co-bathing children should be avoided.
- Frequent changing of underclothing, night clothes, towels, and bedding.
- Launder clothing, towels, and bedding in hot water daily for several days post-treatment.
- Clean home/daycare/classroom daily for several days post-treatment.
- Consult with local or state public health for help with implementation of control measures.

Treatment
There are appropriate anti-worm medications that will be prescribed by a physician, which are taken two weeks apart. Control is difficult in child care centers and schools due to high reinfection rates. In such situations, mass and simultaneous treatments, repeated in two weeks, may be effective.

Exclusion
- EXCLUDE infected individuals from food preparation until cleared by a physician.
- Children/students and staff with pinworm infection should not otherwise be excluded.

Role of teachers, caregivers, and family
- Suspect pinworms if a child has intense itching around the anal or vaginal area.
- Avoid shaking bedding or underwear to prevent spreading ova through the air.
- Wash toys frequently, and clean and sanitize surfaces used for eating, toileting, hand hygiene, food preparation, and diapering.

Pubic lice (Crabs)

What are pubic lice (*Phthirus Pubis*)?
Pubic lice, which resemble crabs through a magnifying glass, are an infestation of the louse *Phthirus pubis*. Adult pubic lice are about 1.5 to 2 millimeters in length, tan to grayish-white in color, and typically found attached to hair in the pubic area. Occasionally, pubic lice may be found on coarse hair elsewhere on the body such as the eyebrows, chest, or armpits. Pubic lice feed on human blood and have a life cycle similar to head lice. They are most commonly spread through sexual contact, though transfer of live lice through contact with the clothing or bedding of a person with an infestation is possible.

Signs and symptoms
- Itching in the pubic/genital region
- Adult lice or lice eggs may be visible on pubic hair

Incubation period
There is no incubation period. An infestation begins with the transfer of a louse or several lice to a new human host.

Contagious period and spread
- Pubic lice are most commonly transmitted through sexual contact. Rarely, a shed hair with an attached nit can hatch and start an infestation. Live lice or shed hairs may be present on clothing or bedding that has been used by a person who is infested.
- Pubic lice can be spread to others as long as nymphs (immature lice) or adult lice are present.

Public health reporting requirements
- Cases of pubic lice are not reportable to public health.
- The possibility of sexual abuse must be considered when infestations occur in prepubescent children. These occurrences must be reported to the appropriate authority.

Control of spread
- People with pubic lice should be examined by a health care provider and treated for lice.
- They should also be evaluated for other sexually-transmitted infections.
- Sexual contacts should be likewise evaluated and treated.
- Parental/guardian consent is not required for minors to be examined and treated.
- People with pubic lice, or who have signs or symptoms of pubic lice, should avoid sexual activity until after treatment.
- General education on STI prevention should be provided to people with an infestation.
- Environmental control measures:
  - Launder clothing and bedding of people with infestation in hot water (130º F) and dry them on a high heat setting for at least 40 minutes. Alternately, items may be dry cleaned.
  - Items that cannot be cleaned can be placed in a plastic bag for two weeks.

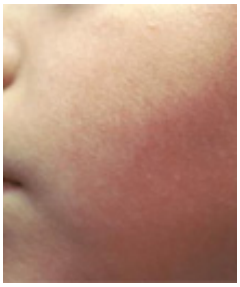
Treatment
- Over-the-counter and prescription treatments are available. People with infestation should consult with a health care provider if they have any questions about which treatment to use.
- Follow treatment instructions closely. Nits can survive treatment, so depending on the medication, a second treatment may be needed to kill lice that have hatched from those eggs.
- If pubic lice are present on the eyebrows or eyelashes, special care must be taken. Follow the product directions for applying treatments, or consult with a health care provider for guidance on product use.
- Use a nit comb or fingernails to remove nits from the hair.

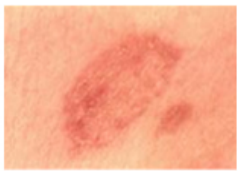
Exclusion
No exclusions are necessary since STIs require close intimate physical contact for transmission, virtually always of a sexual nature.

Role of teachers, caregivers, and family
- General education about sexual health and STI prevention is recommended.
- Infections in prepubescent children and other high-risk individuals must be reported to appropriate authorities to address the possibility of sexual abuse.

Rashes

A rash involves a change in the color and/or texture of skin and can have many different causes. It can be a symptom of a contagious or non-contagious disease. Contact dermatitis (an inflammation of the skin caused by direct contact with an irritating substance) can occur following an exposure to dyes and chemicals found in clothing, chemicals found in elastic and rubber products, cosmetics, poison ivy, and poison oak. This type of rash usually occurs where the irritating agent touches the skin. Eczema (a chronic hypersensitivity reaction in the skin) can cause a scaly and itchy rash. Medications, foods, or insect bites that cause allergic reactions can also cause a rash. The table below outlines 11 different illnesses that can cause rashes.

Illness	Signs and symptoms	
	**Chickenpox** (Varicella): Viral	
	Appearance:	Blister-like rash that scabs over
	Distribution:	More abundant on trunk than extremities
	Itching:	Yes
	Comments/exclusion:	- Highly contagious - Immunization is available - Exclude until blisters scab over
	**Fifth disease** (Erythema Infectiosum, Human Parvovirus): Viral	
	Appearance:	- Red cheeks (“slapped cheek”) - Red, lace-like rash on body - May fade and then reappear
	Distribution:	Begins on cheeks, spreads to trunk and extremities
	Itching:	Slight, if any
	Comments/exclusion:	- No exclusion is necessary for healthy people. - Exposed pregnant people should contact their health care provider.
 	**Hand-Foot-Mouth** (Entero- and Coxsackieviruses, Viral Exanthem): Viral	
	Appearance:	Small blister-like sores
	Distribution:	Palms, soles of feet, mouth and buttocks
	Itching:	No
	Comments/exclusion:	No exclusion is necessary unless the child has mouth sores and is drooling uncontrollably.
	**Impetigo** (Streptococcal and Staphylococcal bacteria): Bacterial	
	Appearance:	Small blisters that burst to reveal red skin
	Distribution:	Usually the face, arms, or legs but can occur anywhere
	Itching:	Yes
	Comments/exclusion:	Exclude at the end of the day until treatment is started. If treatment is started before the next day, no exclusion is needed.

Illness	Signs and symptoms	
	**Measles** (Rubeola, Hard Measles): Viral	
	Appearance:	- Red, raised, and flat spots - Rash turns white on pressure
	Distribution:	Begins on face along hairline, spreads to trunk and extremities
	Itching:	Slight, if any
	Comments/exclusion:	- Highly contagious - Immunization is available - Exclude for five days after rash onset
  	**Ringworm** (Tinea): Fungal	
	Appearance:	Small red bump or ring that spreads outward
	Distribution:	A single area of skin
	Itching:	Yes
	Comments/Exclusion:	Exclude from the end of the day until treatment is started.
	Roseola (Exanthem subitum, Sixth Disease): Viral	
	Appearance:	Small, discrete pinkish-red spots
	Distribution:	Begins on face, chest and abdomen, spreads to the entire body
	Itching:	No
	Comments/exclusion:	- Most common in children 6 to 24 months of age. - No exclusion is necessary unless the child has a fever along with the rash.
 Image: cdc.gov	**Rubella** (German Measles): Viral	
	Appearance:	- Small pink spots - May become confluent but remains pink
	Distribution:	Begins on face, spreads to neck, trunk, and extremities
	Itching:	No
	Comments/exclusion:	- Immunization is available - Exclude for seven days after rash onset
	Scarlet Fever (Group A streptococci): Bacterial	
	Appearance:	- Small red bumps - Rash turns white on pressure - Pigmented areas in skin creases
	Distribution:	Begins on neck and groin, spreads to rest of body
	Itching:	No
	Comments/exclusion:	- Strep throat symptoms are present. - Exclude until 12 hours after appropriate antibiotic treatment.

Illness	Signs and symptoms	
	**Shingles** (Herpes Zoster): Viral	
	Appearance:	- Small red bumps or blisters. Rash turns white on pressure - Pigmented areas in skin creases
	Distribution:	Begins on neck and groin, spreads to rest of body
	Itching:	Yes, and/or painful
	Comments/exclusion:	- No, unless the rash cannot be covered - Exclude if meets other exclusion criteria (e.g. fever, unable to participate, etc.).
	Smallpox: Viral	
	Appearance:	Deep-seated, hard, round, fluid-filled blisters
	Distribution:	Entire body
	Itching:	No
	Comments/exclusion:	- Highly contagious - Notify public health immediately. Exclude immediately.

Respiratory Syncytial Virus (RSV)

What is RSV?

Respiratory Syncytial Virus causes respiratory tract illness in people of all ages. Most RSV infections are mild and consist of cold-like symptoms. However, RSV can also cause severe illness requiring hospitalization. Older adults, young children, and infants are at greatest risk of severe illness from RSV. RSV may be more common in the late fall, winter, and early spring. Almost all children will be infected with RSV by their second birthday, and it is possible to become infected with RSV more than once.

Signs and symptoms

- Similar to the common cold (runny/stuffy nose, sneezing, coughing)
- Fever
- Sore throat
- Decreased appetite (in children)
- Wheezing
- Fatigue
- Chills
- Headache
- Infants may only have symptoms of irritability, poor feeding, decreased activity, and difficulty breathing

Incubation period

Ranges from 2-8 days (usually 4-6 days)

Contagious period and spread

- RSV is spread by inhaling or having contact with virus-containing droplets (typically through the mouth, nose, or eyes) produced by a person with infection when talking, coughing, and sneezing. Virus-containing droplets do not stay in the air for very long, but they can settle on surfaces that are touched by others and live on hard surfaces for several hours and soft surfaces, such as tissues and hands, for shorter amounts of time. Contact with hands, tissues, and other articles contaminated with nose/throat discharges of people who are ill and then touching your face before washing your hands can spread the virus, as well as direct contact with the virus, like kissing the face of someone who has RSV.
- People with infection are usually contagious for 3-8 days. People with weakened immune systems may be contagious for four week or longer.

Public health reporting requirements

- Individual cases of RSV infection are not reportable. RSV-associated hospitalizations and RSV-associated pediactric deaths are reportable statewide as of June 18, 2023. Suspected and confirmed outbreaks of RSV in school or child care settings are reportable to state or local public health statewide.

  Case definition for RSV-associated outbreaks in a school or child care setting:
  - **Suspected RSV outbreak**: One student or child with a positive test for RSV, among one or more other students or children with undiagnosed respiratory illness with symptom onset occurring within a one-week period.*
  - **Confirmed RSV outbreak**: Two or more positive cases of RSV among students or children with symptom onset occurring within a one-week period.

    *The occurrence of respiratory illness among children or students should first be considered suspect for COVID-19. If RSV or other respiratory illnesses such as influenza are circulating locally, these pathogens should also be considered suspect until testing proves otherwise. Co-infections of SARS CoV-2 and other viral respiratory pathogens can and may occur. For more information, see Operational Guidance for K-12 Schools and Early Care and Education Programs.
- Report the infection to the facility director, school nurse, or child care health consultant. Discuss child health concerns with the school nurse or child care health consultant. Consultation with the state or local public health agency is also available.
- If the child develops more severe symptoms or experiences ongoing symptoms, refer them to a health care provider.
- More information on outbreak response for RSV and other non-COVID-19 respiratory illnesses in schools and child care is on CDPHE's website under the link titled "Guidance for Prevention & Control of Non-COVID-19 Respiratory Illnesses in School and Childcare Settings."

Control of spread

- Encourage frequent handwashing and proper hand-hygiene techniques.
- Encourage children to cover their nose and mouth with a tissue or upper arm sleeve when they cough or sneeze, and throw away the tissue after they use it.
- Clean potentially contaminated surfaces, like doorknobs, tables, handrails, etc. See Disease Prevention: The Facility Environment.
- Avoid sharing cups and eating utensils and touching face with unwashed hands.
- People with respiratory symptoms should not interact with people at high-risk for severe disease.

Treatment

There is no specific treatment for RSV infection, and it usually resolves on its own. Antibiotics should not be used to treat viral infections, such as RSV. Acetaminophen-containing medicines (such as Tylenol®) can be used to lower temperature or reduce discomfort. Aspirin and other salicylate-containing products (such as Pepto Bismol®) should not be given to anyone aged 18 years and younger as it increases the risk of Reye syndrome, a rare but very serious complication.

Prevention

Several RSV prevention products are now available for those in age groups at high risk for severe RSV disease. Two RSV vaccines are approved and recommended for those 60 years or older who are at high risk for severe RSV disease based on discussion with their health care provider. There are two monoclonal antibodies approved for RSV prevention in infants and young children: nirsevimab (Beyfortus) and palivizumab (Synagis). Center for Disease Control and Prevention recommends one dose of nirsevimab for all children younger than 8 months who are born in or entering their first RSV season and children between 8 and 19 months who are at higher risk of severe RSV illness entering their second season. Monthly doses of palivizumab during weeks 32-36 of pregnancy to protect infants from severe RSV after birth has been approved by the FDA and recommended by CDC. CDC recommends the use of either maternal RSV vaccination or RSV monoclonal antibody for the protection of infants in their first season of RSV. Most infants will not need both. For a summary of approved and recommended RSV prevention products, see the CDC RSV Prevention webpage.

Exclusion

If a student or child has symptoms of respiratory illness, schools and child care centers should first defer to CDC's Operational Guidance for K-12 Schools and Early Care and Education Programs for guidance and exclusion criteria for COVID-19. If SARS-CoV-2 has been ruled out as the cause of illness and RSV has been confirmed, it is recommended that symptomatic children be excluded from school/child care until they are fever-free for at least 24 hours without the use of fever-reducing medications (fever defined as temperature >100.4º F). Additionally, all other symptoms of respiratory illness, including cough, should be resolved or improved before returning to school or child care. The facility should follow the appropriate response measures for an RSV outbreak if testing done through a health care providers confirms the RSV diagnosis among one or more children.

Role of teachers, caregivers, and family

- Report the infection to the designated staff member who is responsible for making decisions and taking actions related to the care of children who are ill. That person, in turn, notifies possibly exposed family and staff members to watch for symptoms.
- Practice control measures listed above at home and in group care settings.

Resources

Respiratory Syncytial Virus (RSV) | CDPHE

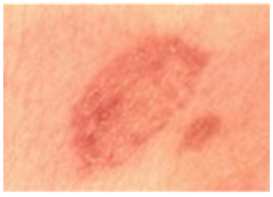
Respiratory Syncytial Virus (RVS) | CDC

Ringworm and other fungal skin infections (tinea, dermatophytes)

What are ringworm and other fungal skin infections?
Some fungi, called dermatophytes, can cause skin, hair, and nail infections. Examples of fungal skin infections include ringworm (also known as tinea – it is not caused by a worm) and athlete's foot (also known as tinea pedis). These types of infections are very common and can affect anyone. People with weakened immune systems and people involved in contact sports (such as wrestling) may be affected more often. These infections typically have no long-term health consequences and can be effectively treated.

Signs and symptoms

- Fungal infections can affect skin on almost any area of the body, including the scalp. Moist areas of skin (such as skin folds) can be affected more often.
- Affected areas can be itchy and become infected if scratching is excessive.
- Ringworm begins as a small red bump or ring that spreads outwards. Affected areas have a red, scaly outer ring with a clear central area, or may appear wet and crusty.
- If the scalp is affected, a bald patch of scaly skin may appear.


Ringworm on the back


Ringworm on the arm


Ringworm on the scalp

Images: cdc.gov

Incubation period
Between four and 14 days

Contagious period and spread

- Fungal infections, including ringworm, are spread by direct contact with the rash on an affected human or animal, or by direct contact with a contaminated object/surface (such as clothing, towels, and bedding). Animals like dogs, cats, cows, goats, pigs, and horses can have ringworm and can transmit it to people. Contact sports, such as wrestling, have been known to spread this skin infection.
- The infection can be spread to others as long as the rash is present on the skin.

Public health reporting requirements

- Individual cases are not reportable.
- Suspected outbreaks of all types (including fungal infections/ringworm) are reportable to state or local public health.

Control of spread

- Ensure all people and pets with infection are treated.
- Avoid sharing personal items.
- Encourage good hygiene and handwashing.
- See Disease Prevention: The Facility Environment for sanitizing and disinfecting guidelines.
- Skin checks during weigh-in for wrestlers

Treatment
Fungal infections, including ringworm, can be treated with antifungal medicine that can be taken in tablet or liquid form by mouth, or as a topical cream applied directly to the affected area. The particular medication used and duration of treatment is based on the location of the infection. Some treatments require a prescription by a health care provider, and some topical creams can be purchased over-the-counter.

Exclusion
Ringworm: Exclude children/students or staff with ringworm infection from the end of the program or school day until after treatment has started. Until the end of the program or school day, avoid any activity involving skin contact.

Other fungal infections: Consult with public health about exclusion.

Role of teachers, caregivers, and family

- Report the infection to the staff member designated by the child care program or school for decision-making and action related to care of ill children. That person, in turn, alerts possibly exposed family and staff members to watch for symptoms.
- Complete medication as prescribed by your health care professional.

Resources

Skin infections | Fact sheets and letter templates (CDPHE)

Roseola (sixth disease)

What is roseola (sixth disease)?
Roseola is a rash illness caused by a virus, either human herpesvirus 6 or 7. Roseola occurs mainly in children aged 24 months to 6 years. Most children have had roseola before 4 years of age. Sometimes it is referred to as sixth disease, or exanthem subitum.

Signs and symptoms
- High fever (often >103° F) lasting three to seven days.
- Seizures may occur with the high fever although often the child is not very ill when fever is present.
- Red, raised rash lasting from hours to several days that becomes apparent the day the fever breaks (usually the fourth day).
- Not every infected child will have a fever and the rash. Many children have no symptoms at all.

Incubation period
The incubation period is nine to 10 days for human herpesvirus 6. Incubation for human herpesvirus 7 is unknown.

Contagious period and spread
- Contagious period: After infection, the virus is present in the saliva on and off for the rest of a person's life.
- Spread through: Respiratory (droplet) route. Contact with large droplets that form when a child talks, coughs, or sneezes. These droplets can land on or be rubbed into the eyes, nose, or mouth. Most of the droplets do not stay in the air; they travel three feet or less and fall onto the ground.
- Nearly all children have had human herpesvirus 6 infection by the time they are 2 years old. Human herpesvirus 7 infection may occur later in childhood.
- Most likely source of transmission to children is healthy adults. Saliva from three-fourths of adults without symptoms contains infectious virus.

Public health reporting requirements
- Individual cases are not reportable to public health.
- Outbreaks are uncommon and unlikely but should be reported to public health.

Control of spread
Use good hand hygiene at all times.

Treatment
There is no specific treatment other than supportive care.

Exclusion
None, unless the child/student meets other exclusion criteria, or the child is unable to participate and staff members determine they cannot care for the child/student without compromising the health and safety of others.

Role of teachers, caregivers, and family
- Report the infection to the staff member designated by the child care program or school for decision-making and action related to care of ill children. That person, in turn, alerts possibly exposed family and staff members to watch for symptoms.
- Inform parents/guardians about the nature of the illness, and that, while the fever phase of the illness can cause concern, once the rash appears, the child is in the recovery phase.

Rotavirus

What is rotavirus?
Rotavirus is a virus that causes gastrointestinal illness. Infants and young children are most often affected, and the illness can be severe in these populations. Older children and adults can also become infected, but illness generally is not as severe as in younger children. Symptoms generally last three to eight days. There are two rotavirus vaccines licensed for use in the United States (RotaTeq and Rotarix), which have been shown to be safe and effective at preventing severe illness. Vaccinated and unvaccinated people may develop rotavirus infection more than once because there are many different types of rotavirus. Usually a person's first infection with rotavirus causes the most severe symptoms. Rotavirus infection can occur any time of the year but is more likely to occur in the winter and spring months.

Signs and symptoms
- Watery, non-bloody diarrhea (can be severe)
- Abdominal pain/cramps
- Loss of appetite
- Vomiting
- Fever
- Dehydration

Incubation period
Ranges from one to three days

Contagious period and spread
- People ill with rotavirus shed the virus in their feces (stool). The virus is easily spread (especially among young children) by the fecal→oral route, meaning that the virus is shed by people with infection in their feces and then enters susceptible people's mouths (by contaminated hands, toys, surfaces, food, water, etc.) to cause infection.
- The infection can be spread to others as long as the virus is in the feces, which can occur before symptoms appear and up to 21 days after a person becomes ill.

Public health reporting requirements
- Report all cases of watery diarrhea to the facility director, school nurse, or child care health consultant.
- Individual cases of rotavirus are not reportable to public health.
- Suspected outbreaks of all types (including rotavirus and other diarrheal illness) are reportable to state or local public health.

Control of spread
- Encourage frequent handwashing, especially after using the toilet, changing diapers, before eating, and before food preparation.
- Promptly sanitize contaminated surfaces (like diaper-changing areas) and other commonly touched surfaces (like toys), and discard food or water if it is thought to be contaminated. See Disease Prevention: The Facility Environment.
- Encourage routine rotavirus vaccination in infants.
- Consult with local or state public health for help with implementation of control measures.

Treatment
There is no treatment for this infection. Because rotavirus is caused by a virus, antibiotics will not help. People with infection should drink plenty of fluids to prevent dehydration. Oral rehydration fluids (like Pedialyte and similar fluids) should be used if possible.

Exclusion
- EXCLUDE all infected children and staff, including food preparation staff, until at least 48 hours after diarrhea symptoms have resolved.
- Children should not transfer to other schools or facilities during the exclusion period.

Role of teachers, caregivers, and family
- Encourage routine vaccination according to current immunization recommendations.
- Practice good handwashing, especially after changing diapers, going to the bathroom or helping a child go to the bathroom, or handling food.
- Diapering, bathroom, and food preparation areas should be cleaned and disinfected frequently.
- Ensure proper cooking and storage of food.

Rubella (German measles)

What is rubella (German measles)?
Rubella is a mild viral infection that usually lasts three days and is very rare in the United States because of routine vaccination. While rubella is mild in children, infection during the first trimester of pregnancy can cause fetal death, premature delivery, or serious birth defects known as congenital rubella syndrome.

Signs and symptoms
- Red or pink rash that appears first on the face, then spreads downward over the body.
- Swollen glands, usually at the base of the skull and behind the ears.
- Mild or no fever.
- May experience joint aches or pain (more common in adults).
- 20-50% of infected individuals will not have symptoms.

Incubation period
14-21 days, usually 16-18 days

Contagious period and spread
- Contagious period: Seven days before to 14 days after the rash onset. However, children are most contagious from three to four days before the rash starts until seven days after the rash.
- Spread through respiratory (droplet) route: Contact with large droplets and respiratory secretions that form when a child talks, coughs, or sneezes.

Public health reporting requirements
- Report the infection to a staff member designated by the child care program or school for decision-making and action related to the care of ill children.
- Schools and child care facilities should report the infection to the local or state health department within one day of diagnosis.
- Schools and child care facilities should work with state or local public health agencies to notify parents/guardians about a case of rubella in the facility.
- Suspect rubella cases should be referred to a health care provider.

Control of spread
- Rubella virus vaccine is routinely given at 12-15 months of age, with a second dose recommended at age 4-6 years. The Colorado School Immunization Rules requires children to have two rubella-containing immunizations prior to school entry and child care/preschool children 15 months of age to kindergarten to have one dose of rubella vaccine, unless the child has an exemption to immunization.
- Review vaccination status of all children.
- Unvaccinated or non-immune children should be excluded from group settings if there is an outbreak.
- Exposed pregnant staff, especially those in the first trimester, should contact their health care provider to find out if they are immune to rubella.

Treatment
There is no specific medicine to treat rubella or make the disease go away faster. In many cases, symptoms are mild. For others, mild symptoms can be managed with bed rest and medicines for fever, such as acetaminophen.

Exclusion
- Yes. Rubella is highly contagious, so infected children should be excluded for seven days after onset of rash.
- For outbreaks, exclude exposed children who have not been immunized (or, if older than 4-6 years, received fewer than two doses of vaccine) or lack evidence of rubella immunity by laboratory methods until they become immunized, or until the local health department determines it is safe for them to return. This may be more than three weeks.

Role of teachers, caregivers, and family
- Encourage routine vaccination. Review and ensure all children have received the rubella-containing vaccine according to current immunization recommendations.
- Report the infection to the local or state health department. If the health professional who makes the diagnosis does not inform the local health department that the infected child is a participant in a child care program or school, this could delay controlling the spread.

- Report the infection to the staff member designated by the child care program or school for decision-making and action related to the care of ill children. That person will work with public health to alert possibly exposed family and staff members and parents of unimmunized children to watch for symptoms and notify the health consultant.

Salmonellosis

What is salmonellosis?
Salmonella infection can cause an intestinal illness referred to as salmonellosis. While infections occur year-round, they are most common in the summer months. *Salmonella* bacteria live in a very wide range of animals, including reptiles, amphibians, poultry and other birds, rodents, pets, and livestock, such as cattle.

Signs and symptoms
- Diarrhea (sometimes bloody)
- Abdominal cramps
- Nausea
- Vomiting
- Fever

Incubation Period
Six to 72 hours (usually 12-36 hours), but could be up to seven days

Contagious period and spread
- *Salmonella* is spread through the fecal→oral route. People can become ill with salmonellosis by eating contaminated food (e.g., raw or undercooked poultry, eggs, egg products; undercooked meats, contaminated produce, and raw milk or milk products), drinking contaminated water, or putting contaminated objects in the mouth. *Salmonella* is also spread from person-to-person and from animals to people (especially reptiles and chicks). A wide variety of foods have been associated with infection include undercooked meat/poultry or eggs, unpasteurized milk, produce, and a number of processed items, including peanut butter, cereals, and snack foods.
- People are contagious as long as they have *Salmonella* bacteria in their stool, but they are most contagious while having diarrhea. People may continue to shed *Salmonella* bacteria in their stools for weeks to months after their illness has gone away.

Public health reporting requirements
- Staff who become aware of illness should report the infection to the facility director or school nurse.
- The facility should report to the local or state health department within four days of diagnosis.
- If other children or staff are ill with diarrhea, refer them to their health care provider, and contact public health as soon as possible as this could be an outbreak. Generally speaking, it is considered an outbreak if there is an increase in the number of ill children and/or staff members at the school or child care center or two or more cases from different households.

Control of spread
- Consult with local or state public health on implementation of control measures.
- Promptly sanitize contaminated surfaces (like diaper-changing areas) and other commonly touched surfaces (like toys), and discard food or water if it is thought to be contaminated. See Disease Prevention: The Facility Environment.
- Refer to Disease Prevention: Food Safety for information on food safety.
- Alert possibly exposed family and staff members to watch for symptoms and provide them with prevention tips. See recommendations for caregivers and the family section below.
- Reinforce and teach the importance of meticulous handwashing with child care facility staff after diaper changing and toileting children. If possible, this should be verified by environmental health. Sample signs showing when and how to wash hands are included at the end of this document. Post them or similar signs throughout the child care center or school to remind people to wash their hands.

Treatment
Most people with healthy immune systems will recover without treatment in four to seven days. Ill people should be given plenty of fluids to prevent dehydration. Ill people are usually not given antibiotics for mild *Salmonella* infections because antibiotics do not shorten the duration of illness and may prolong shedding of the bacteria in the stool. However, antibiotics are recommended for cases with gastroenteritis and an increased risk of invasive disease, such as:

- Infants <3 months of age
- Chronic gastrointestinal tract disease
- Malignant neoplasms

- HIV infection
- Immunosuppressive illnesses and therapies
- Severe colitis

Exclusion
EXCLUDE all infected children and/or staff until at least 24 hours after diarrhea has resolved, AND

- **Child care**
  - Ill children should not go to another facility during the period of exclusion.
  - Children returning to child care are not required to provide follow-up stool tests.
  - When a case of salmonellosis is identified in a child attending child care, determine whether additional children have or have recently had diarrhea. Other children with diarrhea should be excluded, seen by their physician, and submit stool for *Salmonella* testing. If other cases in the center are identified, consider sending a letter home to parents. A sample letter is available in the resource folder.
  - If the case is the only child in the classroom or center who has been ill, no further action is indicated for other children in that classroom or center.
- **Schools**
  - In general, students/children or staff with *Salmonella* who do not have diarrhea and are not otherwise sick may remain in school.
  - Exclude children who wear diapers or have developmental delays resulting in fecal incontinence or hygiene concerns until they are cleared by public health. Clearance by public health may require two consecutive negative stools collected 24 hours apart, 48 hours after completion of antibiotics.
  - In some circumstances, public health may require additional testing before a person with infection can return to work, school, or child care.
  - Students or staff who handle food and have a *Salmonella* infection must not prepare food until at least 24 hours after their diarrhea has resolved or until cleared by the state or local public health agency.

Role of teachers, caregivers, and family

- If your child or a child you care for is infected with *Salmonella*, follow the advice of the child's health care provider.
- Practice good handwashing, especially after changing diapers, going to the bathroom or helping a child go to the bathroom, or handling food.
- Diapering, bathroom, and food preparation areas should be cleaned and disinfected frequently.
- Infants, children, elderly, and immunocompromised individuals should avoid contact with reptiles and reptiles' cages as they are more likely to carry *Salmonella*. It is also important to wash hands after touching any pets or other animals as they can also carry *Salmonella*.
- Keep food that will be eaten raw, such as vegetables, from becoming contaminated by animal-derived food products. Thoroughly cook all food products from animals, especially poultry and eggs, and avoid consuming raw or cracked eggs, unpasteurized milk, or other unpasteurized products. Ill individuals should not prepare food for other individuals until symptoms resolve.

Resources
Salmonella | Fact sheets and letter templates (CDPHE)

Scabies

What is scabies?
Scabies is a condition caused by *Sarcoptes scabiei* var. *hominis*, a microscopic mite that infests the top skin layer of humans. Scabies is not a result of poor personal hygiene, but is contracted through skin-to-skin contact with someone who is infested. People with scabies usually have only 10 or 12 mites on their body. Scabies should only be diagnosed by a health care provider; misdiagnosis by lay people is common.

Signs and symptoms
- Initial symptoms consist of small itchy bumps, blisters, or pus-filled bumps that break when scratched
- Intense itching may occur, particularly at night or after a bath
- Commonly affected areas include the hands and feet, especially the webbing between digits, inner wrists, and armpits
- Other areas of the body may also be affected
- Tiny, raised, crooked, grayish-white or skin-colored burrows may be seen in the skin

Incubation period
The incubation period is the time from the mite's penetration and entry into the top skin layer until the time the person with the infestation develops symptoms. People who have never had scabies before may not develop symptoms until two to six weeks after they are infested. For people who have had scabies before, the incubation period is much shorter and can be as little as one to four days.

Contagious period and spread
- Scabies is transmitted by direct, prolonged, physical contact (skin-to-skin) with a person with infestation or through contact with infested clothing or bedding. A person with infestation can spread the scabies mite before they show signs and symptoms. Mites cannot reproduce or survive without a human host, so objects like toys and desks are not important in the spread of scabies.
- People with infestation can spread the mites until the mites and eggs are destroyed by treatment.

Public health reporting requirements
- Individual cases are not reportable.
- The facility director, school nurse, or child care health consultant should be consulted for specific concerns. Consultation with the state or local public health agency is available.

Control of spread
- Refer suspected people with an infestation to a health care provider for diagnosis and treatment.
- Close contacts of a person with infestation should be monitored for symptoms, or may be treated prophylactically.
- The type and duration of contact will determine whether prophylaxis is needed. Sexual contacts are at high risk for infestation.
- Environmental control measures
  - Scabies mites cannot live for longer than four days away from humans, thus mites in the environment will die in a few days if there is no host to feed on.
  - Clothing and bedding used by a person with scabies in the three days before treatment is started should be laundered using hot water and the high-heat setting on the dryer.
  - Items from a person with scabies that cannot be laundered can be placed in a plastic bag for at least four days.
  - Carpet and furniture can be vacuumed. Do not use pesticides.

Treatment
- Treatments for scabies are only available with a prescription. Anyone who suspects they have scabies should consult their health care provider for a diagnosis and prescription.
- Itching is due to a reaction to the mite, its eggs, and its feces in the skin. Itching may increase and even continue for several weeks following a successful treatment as the mites die.
- Mites can be resistant to treatment. A health care provider should be consulted if symptoms persist for more than three weeks after treatment.
- Family members and very close contacts should be treated at the same time as a child/student, even if no signs or symptoms are present.

Exclusion

- Exclude children/students with scabies from the end of the program or school day until after treatment has started.
- Until the end of the program or school day, avoid any activity involving prolonged skin contact.

Role of teachers, caregivers, and family

- Scabies affects people from all socioeconomic levels without regard to sex, age, or personal hygiene. Perceptions of social stigma and physical discomfort caused by scabies can affect a child's ability to learn and perform in the school environment.
- Use and encourage good hand-hygiene techniques.
- Use standard precautions when cleaning or touching open sores or lesions.

Resources

Scabies | Fact sheets and letter templates (CDPHE)

Sexually transmitted infections (STIs)

What are sexually transmitted infections (STIs)?
More than 16 infectious diseases are recognized as being sexually-transmitted infections. The STIs described in these guidelines cover only those most common (i.e., situations with which school nurses and child care personnel are more likely to be confronted). Teens have very high reported rates of STIs for several reasons:

- Many STIs do not cause symptoms.
- Sexual partners do not know that they are infected and can spread the disease.
- Social stigma attached to STIs may cause embarrassment and result in hesitance to be examined for fear that others will "find out" about the infection.
- There is a lack of public knowledge about STIs and how they are transmitted.

Signs and symptoms
Signs and symptoms vary depending on the disease. See the disease-specific chapters in these guidelines.

Incubation period
The incubation period varies depending on the disease. See the disease-specific chapters in these guidelines.

Contagious period and spread
- STIs are transmitted through various forms of sexual contact: oral, anal, and vaginal. People with an STI are generally contagious until they receive treatment, although some STIs are potentially communicable for life (like HIV, genital herpes, and genital warts).
- The contagious period and spread varies depending on the disease. See the disease-specific chapters in these guidelines.

Public health reporting requirements
- Chlamydia, gonorrhea, and Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) must be reported to the state or local public health agency within four days of diagnosis.
- Syphilis must be reported within one work day of a suspected or confirmed diagnosis.
- The possibility of sexual abuse must be considered when infections occur in prepubescent children and must be reported to appropriate authorities.

Control of spread
- People with infection should be examined by a health care provider and treated (if treatment is available) as soon as the diagnosis is confirmed to prevent complications. Treatment of partner(s) is a crucial strategy to prevent re-infection. People with infection should seek medical care if symptoms persist or recur. Parental/guardian consent is not required for minors to be examined and treated.
- People with infection should avoid sexual activity until they and their partner(s) are treated (if treatment is available) and cured.
- People with infection should abstain from sex or use condoms to prevent future infections.
- General education on STI prevention is advocated.
- A vaccine exists for the most common types of Human Papillomavirus (HPV) (the virus that causes genital warts, cervical and other types of cancer) and Hepatitis B. There are currently no other vaccines for STIs.

Treatment
People with infection should be taught how to take prescribed medications correctly.

Exclusion
No exclusions or environmental interventions are necessary. STIs require close intimate physical contact for transmission, virtually always of a sexual nature.

Role of teachers, caregivers, and family
General education about sexual health and STI prevention is recommended.

Infections in prepubescent children and other high-risk individuals must be reported to appropriate authorities to address the possibility of sexual abuse.

Resources
Sexually transmitted infections and HIV (CDPHE)
STD Fact Sheet (CDC)

Shigellosis

What is shigellosis?
Shigella infection causes an intestinal illness referred to as shigellosis. While less common than many of the other enteric pathogens, the number of shigellosis cases has been increasing in recent years. Humans are the only significant reservoir for *Shigella*; animals do not carry or spread this type of bacteria.

Signs and symptoms
- Diarrhea (sometimes with blood or mucus)
- Abdominal cramps
- Nausea
- Fever
- Vomiting

Incubation Period
One to seven days (usually one to three days)

Contagious period and spread
- *Shigella* is spread by the fecal→oral route. People can become ill with *Shigella* from person-to-person contact, by eating food contaminated by people with infection (in particular foods eaten raw), drinking or swimming in contaminated water, or by coming into contact with contaminated surfaces. Shigellosis is highly contagious and spreads easily from person-to-person, especially in child care facilities.
- People are contagious as long as the organism is present in the stool, which can be several weeks. People with diarrhea are more likely to spread it than those who are infected but do not have symptoms.

Public health reporting requirements
- Staff who become aware of illness should report the infection to the facility director or school nurse.
- The facility should report to the local or state health department within four days of diagnosis.
- If other children or staff are ill with diarrhea, refer them to their health care providers, and contact public health as soon as possible as this could be an outbreak. Generally speaking, it is considered an outbreak if there is an increase in the number of ill children and/or staff members at the school or child care center.

Control of spread
- When a case of shigellosis occurs in a child care center attendee or worker, immediate involvement of public health authorities is critical. *Shigella* spreads very quickly through child care centers, but can be controlled if appropriate action is taken.
- Consult with local or state public health with implementation of control measures.
- Encourage and teach the importance of frequent handwashing, especially after using the toilet, changing diapers, and before eating. Directly supervise handwashing of children aged 5 years or younger. Sample signs showing when and how to wash hands are included in the resource folder. Post them or similar signs throughout the child care center or school to remind people to wash their hands.
- Perform more frequent cleaning and disinfection of toys, bathrooms, diapering areas, and food preparation areas during this time. Suspend the use of “play” dough and water tables.
- Promptly sanitize contaminated surfaces (like diaper-changing areas) and other commonly touched surfaces (like toys), and discard food or water if it is thought to be contaminated. See Disease Prevention: The Facility Environment.
- Refer to Disease Prevention: Food Safety for information on food safety.
- Alert possibly exposed family and staff members to watch for symptoms and provide them with prevention tips. See recommendations for caregivers and the family section below.
- Refer to Shigellosis Outbreak Investigation & Control In Child Care Centers / Preschools

Treatment
Most shigellosis infections are self-limited, resolve in four to seven days, and do not require antibiotics, but some people can experience symptoms for four or more weeks. Some people can be infected and not show any symptoms. Antibiotics may be effective in slightly shortening the duration of diarrhea and eradicating organisms from feces, although some antibiotics will not eliminate these bacteria. Antibiotic treatment is recommended for cases with severe

disease, dysentery, or underlying immunosuppressive conditions. Some *Shigella* bacteria have become resistant to certain antibiotics. Laboratory tests can determine which antibiotics are effective for a specific *Shigella* case.

Exclusion

EXCLUDE all infected children and/or staff until at least 24 hours after diarrhea has resolved, AND

- **Child care and preschool**
  - EXCLUDE all children, staff, and caregivers infected with shigellosis until cleared by public health. Clearance by public health may require two consecutive negative stools collected 24 hours apart, 48 hours after completion of antibiotics.
  - Ill children should not go to another facility during the period of exclusion.
  - When a case of *Shigella* is identified in a child attending child care, determine whether additional children have or have recently had diarrhea. Other children with diarrhea should be excluded, seen by their physician, and submit stool for *Shigella* testing. If other cases in the center are identified, consider sending a letter home to parents/guardians/caregivers. A sample letter is available in the resource folder.
  - If the case is the only child in the classroom or center who has been ill, no further action is indicated for other children in that classroom or center.
  - Staff with no role in food preparation or feeding (e.g. office staff) may return to work after diarrhea has been resolved for at least 24 hours without follow-up stool testing.
- **Primary and secondary school**
  - Students or staff with *Shigella* infection should be excluded until at least 24 hours after their diarrhea has resolved.
  - Children who wear diapers or have developmental delays resulting in fecal incontinence or hygiene concerns should be excluded until cleared by public health.
  - Students or staff who handle food and have a *Shigella* infection must not prepare food until at least 24 hours after their diarrhea has resolved and have two consecutive negative stool tests taken at least 24 hours apart (collected at least 48 hours after completion of antibiotic therapy, if antibiotics are given).

Role of teachers, caregivers, and family

- If your child or a child you care for is infected with *Shigella*, follow the advice of the child's health care provider.
- Practice good handwashing, especially after changing diapers, going to the bathroom or helping a child go to the bathroom, or handling food. Diapering, bathroom, and food preparation areas should be cleaned and disinfected frequently.
- Keep flies from contaminating food.
- Ill individuals should not prepare food for other individuals until symptoms resolve.
- Infected individuals should not swim or wade in pools or other recreational water while experiencing diarrhea.

Resources

Shigella | Fact sheets and letter templates (CDPHE)

Streptococcal sore throat (strep throat)

What is Streptococcal sore throat (strep throat)?
Streptococcal sore throat, also referred to as strep throat, is caused by the bacteria *Streptococcus pyogenes* (also known as Group A streptococcus). Not all sore throats are caused by streptococcal bacteria. People who are ill with a sore throat should see a health care provider to determine the cause. Strep throat is usually diagnosed by a rapid strep test or a throat culture.

Signs and symptoms

- Sore throat (throat appears red and there may be white pus on the tonsils)
- Fever
- Enlarged lymph nodes in the neck
- Runny nose (toddlers may only have a runny nose and/or fever)
- Headache, stomach pain, nausea, and/or vomiting
- Skin rash called a scarlatiniform rash
- Children younger than 3 years with group A streptococcal infection rarely have a sore throat. Most commonly, these children have persistent nasal discharge (which may be associated with foul odor from the mouth), fever, irritability, and loss of appetite.

Complications of strep throat can include:

- Rheumatic fever, an inflammatory disease that can involve the heart, joints, skin, and brain. The risk of rheumatic fever is reduced by promptly treating strep throat with the appropriate antibiotics.
- Acute glomerulonephritis, a disease of the kidneys.
- Toxic shock syndrome.

Incubation period
Two to five days

Contagious period and spread

- Strep throat is usually transmitted through contact with droplets and respiratory secretions from a person with infection, such as through coughing and sneezing.
- People are no longer contagious within 12 hours of beginning appropriate antimicrobial therapy. Communicability of people who are not treated gradually diminishes over a period of weeks.
- As many as 25% of asymptomatic school children and a small number of adults carry the bacteria that cause strep throat in their nose and throat and are not ill. The risk of transmission from someone who is not sick but carrying the virus is low.
- Note: The bacteria that cause strep throat can also cause impetigo.

Public health reporting requirements

- Report the infection to the facility director, school nurse, or child care health consultant.
- Individual cases of strep throat infections, scarlet fever, and rheumatic fever are not reportable to public health.
- Suspected outbreaks of all types (including strep throat) are reportable to state or local public health.

Control of spread

- Family members and household contacts of an ill person do not need to be routinely tested unless they are symptomatic, or contacts are at increased risk of developing sequelae from strep infection, or the child has rheumatic fever or acute glomerulonephritis.
- Follow-up testing of symptomatic people with a positive strep test is not routinely recommended. If symptoms persist after antibiotic therapy, a health care provider should be consulted.
- Encourage frequent handwashing.

Treatment
Typically antibiotics (usually penicillin or amoxicillin) are prescribed to treat strep throat. Treatment instructions should be followed closely in order to prevent complications such as rheumatic fever.

Exclusion

- EXCLUDE symptomatic children and staff in child care centers and schools with strep throat until 12 hours after the first dose of antibiotic treatment.

- A student/child or staff member without symptoms, regardless of a positive test result, does not need to be excluded.

Role of teachers, caregivers, and family

- Teach children to cover their cough and avoid contact with respiratory droplets.
- Practice and encourage good hand-hygiene techniques.

Syphilis

What is syphilis?
Syphilis is caused by *Treponema pallidum*, a bacterium. Syphilis can affect the entire body and has several stages: primary, secondary, latent, tertiary, and neurosyphilis. Symptoms vary and can be indistinguishable from other diseases, and often people with syphilis do not have noticeable symptoms for years.

Signs and symptoms

- Primary stage: One or more small, round, hard, painless sores (called chancres) appear at the site of exposure, usually around the penis, mouth, vagina, and/or anus. Chancres generally resolve after three to six weeks without treatment.
- Secondary stage: If not treated, a non-itchy, reddish, rough rash develops on the palms of the hands and on the bottoms of the feet as well as the abdomen and back. A rash with a different appearance may occur on other parts of the body. Sometimes the rash is faint and not noticed. Second-stage symptoms can also include fever, swollen lymph glands, sore throat, patchy hair loss, headaches, weight loss, muscle aches, and tiredness. Even without treatment, the symptoms of secondary syphilis usually resolve.
- Late stage: A person with untreated syphilis can experience a period of many years without any symptoms following the primary and secondary stages. Signs and symptoms of the late stage of syphilis include difficulty coordinating muscle movements, paralysis, numbness, gradual blindness, and dementia. The damage may be serious enough to cause death.

Incubation period
The average time between acquisition of syphilis and the start of the first symptom is 21 days, but it can range from 10 to 90 days.

Contagious period and spread

- Direct exposure to a chancre through sexual contact: oral, anal, and vaginal.
- People with a chancre(s) who are in the primary or secondary stage can spread syphilis.

Public health reporting requirements

- Syphilis infections must be reported by laboratories and health care providers to the state or local public health agency within one working day of a suspected or confirmed diagnosis.
- The possibility of sexual abuse must be considered when infections occur in prepubescent children and must be reported to appropriate authorities.

Control of spread

- People with infection should be examined by a health care provider and treated as soon as the diagnosis is confirmed to prevent complications. Treatment of the partner(s) is a crucial strategy to prevent re-infection. People with infection should seek medical care if symptoms persist or recur. Parental consent is not required for minors to be examined and treated.
- People with infection should avoid sexual activity until they and their partner(s) are treated and cured.
- Patients should correctly and consistently use condoms to help prevent future infections.
- General education on STI prevention is advocated.

Treatment
Treatment is with antibiotics. Syphilis is easy to cure in its early stages. Late-stage syphilis complications require more extensive antibiotic treatment.

Exclusion
No exclusions or environmental interventions are necessary. STIs require close intimate physical contact for transmission, virtually always of a sexual nature.

Role of teachers, caregivers, and family

- General education about sexual health and STI prevention is recommended.
- Infections in prepubescent children and other high-risk individuals must be reported to appropriate authorities to address the possibility of sexual abuse.

Resources
Sexually Transmitted Diseases (STDs) (CDC)

Tetanus

What is tetanus?
Tetanus is caused by *Clostridium tetani*, which is a spore-forming bacteria found in soil and human and animal feces. The spores enter the body through breaks in the skin, often wounds, and grow under low-oxygen conditions. The bacteria excrete a potent toxin (poison) that affects the central nervous system. Tetanus can be deadly. There are very few cases of tetanus in the United States due to routine vaccination.

Signs and symptoms
- The jaw and neck are usually involved first, causing lockjaw, stiff neck, and difficulty swallowing
- Painful, severe muscular contractions (spasms)
- Generalized tonic seizure-like activity
- Eventually the entire body is affected (usually in a descending pattern)

Incubation period
Ranges from two days to several months (usually eight to 14 days)

Contagious period and spread
- Tetanus is not contagious person-to-person, so there is no contagious period.
- People get tetanus when spores from the bacteria enter the body through breaks in the skin (wounds).

Public health reporting requirements
- Confirmed or suspected cases of tetanus must be reported to the local or state health department within four days of diagnosis.
- Report the infection to the facility director, school nurse, or child care health consultant.
- Consult with the state or local public health agency about sending out notifications.

Control of spread
- Tetanus can be prevented with vaccination and is part of DTaP, DT, Tdap, and Td vaccines.
- Tetanus vaccine is routinely given starting at two months of age.
- Tetanus vaccine and/or tetanus immune globulin (TIG) may be recommended after an injury in certain situations, depending on the type of wound and the person's tetanus vaccination status.
- Instances where tetanus vaccine and/or TIG may be needed include animal bites, cuts, burns, puncture wounds, and wounds contaminated with soil, feces, or saliva.

Treatment
Treatment of tetanus is an emergency that requires hospitalization.

Exclusion
Exclusion is not necessary because tetanus is not spread person-to-person.

Role of teachers, caregivers, and family
- Encourage routine vaccination.
- Don't delay first-aid of even minor, non-infected wounds like blisters, scrapes, or any break in the skin.
- Wash hands often with soap and water, or use an alcohol-based hand rub if washing is not possible.

Tick-borne illness

What are tick-borne illnesses?
Tick-borne illnesses are caused by bacteria or viruses that are transmitted when ticks attach to a person's skin and feed on that person's blood. The ticks that transmit Lyme disease are not found in Colorado. However, bites from ticks found in Colorado (American dog ticks, Rocky Mountain wood ticks, and Brown dog ticks) can transmit several tick-borne diseases, though most are infrequently seen in Colorado.

Signs and symptoms

- *Colorado Tick Fever:* fever, chills, headache, body aches, and feeling tired. Some patients have sore throat, vomiting, abdominal pain, or skin rash. About half of patients have several days of fever, feel better for several days, then have a second short period of fever and illness. Weakness and fatigue may last several weeks but most people recover completely. In rare cases, severe illness affecting the central nervous system may occur.
- *Tick-borne relapsing fever (TBRF):* high fever (e.g., 103° F), headache, muscle and joint aches. Symptoms can recur, producing a telltale pattern of fever lasting roughly three days, followed by seven days without fever, followed by another three days of fever. Without antibiotic treatment, this process can repeat several times.
- *Rocky Mountain Spotted Fever (RMSF):* Early signs and symptoms are not specific and include fever and headache. However, the disease can rapidly progress to a serious and life-threatening illness. Rash is common and usually develops two to four days after fever begins. The look of the rash can vary widely over the course of illness. Some rashes can look like red splotches and some look like pinpoint dots. While almost all patients with RMSF will develop a rash, it often does not appear early in illness, which can make RMSF difficult to diagnose.

Incubation period
Tick bites are not painful and many people do not know that they've been bitten.

- *Colorado Tick Fever*: Ranges from one to 14 days from the time of the tick bite.
- *Tick-borne relapsing fever*: Approximately seven days from the time of the tick bite.
- *Rocky Mountain Spotted Fever*: Three to 12 days from the time of the tick bite.

Contagious period and spread
Tick-borne diseases are not spread person-to-person with the exception of Colorado Tick Fever. The virus that causes Colorado Tick Fever could potentially be transmitted to others through blood or bone marrow donations, so it is advised not to donate for six months following this viral infection.

- *Colorado Tick Fever:* Caused by a virus spread from Rocky Mountain wood tick bites.
- *Tick-borne relapsing fever:* Caused by bacteria transmitted from the bite of soft ticks (commonly *Ornithodoros hermsi* in Colorado), which are often found in rodent nests associated with rustic cabins in forested high-elevation habitats. As long as the chipmunks or tree squirrels are available for the soft ticks to feed on, they will stay in the nests, but if the rodents leave or are removed, the soft ticks will attach and feed on people for short periods at night while they sleep. They don't stay attached like the hard ticks do, so exposure often goes unnoticed.
- *Rocky Mountain Spotted Fever:* Caused by bacteria transmitted from the bite of Rocky Mountain wood ticks, American dog ticks, and Brown dog ticks.

Public health reporting requirements
Tick-borne illnesses are reportable to local or state public health within four days of diagnosis.

Control of spread

- Tick-borne diseases are not spread person-to-person.
- Educate children and staff about tick prevention.
- Treat clothing and gear and use insect repellants.
- Check children for ticks after outdoor activities and safely remove attached ticks.

Treatment

- *Colorado Tick Fever*: There are no medications to treat this viral infection. Severe cases may require hospitalization for supportive care.

- *Tick-borne relapsing fever (TBRF)*: Treated with antibiotics. Cases require close observation during initiation of treatment; about 50% of cases have a severe reaction.
- *Rocky Mountain Spotted Fever (RMSF)*: Early treatment with doxycycline can prevent death or severe illness. Treatment must be started before the diagnosis can be confirmed due to the delay in detectable antibodies, which do not reliably appear until two to three weeks after illness onset.

Exclusion
Exclusion is not necessary since tick-borne diseases are not spread person-to-person.

Role of teachers, caregivers, and family
- Locate play areas away from areas with lots of trees, tall grass, and brush.
- Use barriers of dry wood chips or gravel between play areas and areas with trees, tall grass, and brush.
- Inspect children's skin and scalp after possible exposure, and wear gloves to remove attached ticks as soon as possible.
- Use veterinary-approved tick preventative products on pets.

Resources
Ticks (CDC)

Tuberculosis (TB)

What is tuberculosis (TB)?
Tuberculosis (TB) is a disease caused by *Mycobacterium tuberculosis*. The bacteria usually attack the lungs but can attack any part of the body, such as the kidney, joints/bones, spine, and brain. If not treated properly, it can be deadly.

Signs and symptoms
There are TB-related conditions.

Latent TB Infection: TB bacteria can live in your body without making you sick. This is called latent TB infection (LTBI) or just TB infection. In most people who breathe in TB bacteria and become infected, the body is able to fight the bacteria to stop it from growing. People with TB infection do not feel sick, cannot transmit the infection to others, and do not have any symptoms. Untreated TB infection often progresses to active TB disease (see below), so TB infection treatment is usually recommended in those cases.

Active TB Disease: TB bacteria become "active" if the immune system cannot stop it from multiplying. When TB bacteria are active (multiplying in your body), this is called TB disease. TB disease will make you sick. People with TB disease of the lungs or throat may spread the bacteria to people through the air.

A person with latent TB infection	A person with active TB Disease
Has no symptoms	Has symptoms that may include: - A cough lasting three weeks or longer. - Pain in the chest. - Coughing up blood or sputum. - Weakness or fatigue. - Unexplained weight loss and/or no appetite. - Chills and/or fever. - Sweating while sleeping.
Does not feel sick	Usually feels sick (see symptoms above)
Cannot spread TB bacteria to others	May spread TB bacteria to others
Usually has a skin test or blood test result indicating TB infection	Usually has a skin test or blood test result indicating TB infection
Has a normal chest X-ray and a negative sputum smear	May have an abnormal chest X-ray, or positive sputum smear or culture
Needs treatment for TB infection to prevent progression to active TB disease	Needs treatment to treat active TB disease

Incubation period
Infection is detectable by skin or blood test two to 10 weeks after initial exposure to someone with active disease.

The risk of progression to active disease is elevated in the first two years and when the body's immune system is not able to fight off the disease (i.e., diabetes, HIV, renal disease, TNF inhibitors, etc.). Young children are at a higher risk of progression to active TB disease because their immune system cannot fight the TB bacteria as well as an adult. However, the infection may be present for many years in its latent phase before progression to active disease.

Contagious period and spread
TB is contagious only during active disease. Generally, infants and children aged 12 and younger with active TB disease are not contagious because they don't form cavities in their lungs with enough bacteria to be expelled into the air when they cough.

TB is spread through the air from person to person. When a person with active TB disease of the lungs or throat coughs, sneezes, speaks, or sings, the bacteria enters the air. People nearby may breathe in the bacteria and become infected. TB is NOT spread by shaking hands, sharing items (like food, drinks, toothbrushes), touching objects, or kissing.

Public health officials will determine when a person is no longer infectious after starting effective treatment.

Public health reporting requirements

- Report the name of the child or staff member with active TB to the facility director or school nurse and the local or state health department within one working day of suspected or confirmed TB diagnosis.
- Report positive TB skin tests (using millimeters as metric) to the facility director or school nurse and the local or state health department within seven days of diagnosis.
- Positive IGRA (TB blood tests) are reported to CDPHE by labs in Colorado.

Control of spread

- Tuberculosis risk assessment should be a routine part of health assessments for adults working in early childhood education, child care programs, and schools.
- Referral to local or state public health is mandatory for suspected or confirmed cases of TB. Recent skin or blood test converters should have a chest X-ray and medical evaluation to determine if treatment is indicated.
- People with previously positive skin or blood test results, especially those who were not treated for TB infection, should be evaluated by a health care provider if any symptoms of TB disease are noted — fever, night sweats, weight loss, or persistent cough — to assess their disease status and determine the need for treatment.
- Skin or blood testing of all exposed children and staff may be necessary in some instances.
- No immunization is recommended in the United States.
- Consultation with the state or local public health agency is encouraged for situations that may arise in child care or school settings. The CDPHE Tuberculosis Program can be reached at 303-692-2638.

Treatment

Tuberculosis is treated with antibiotics. There are three treatment regimens for TB infection that range in duration from three to nine months. TB disease is treated with multiple antibiotics for a duration of six months to more than a year. TB treatment for active TB disease requires observation. Public health officials or designees will need to directly observe the administration of each dose of treatment.

Exclusion

- EXCLUDE children with active TB disease from child care or school until they are cleared by public health.
- Children should not transfer to a new school or facility during the exclusion period.
- Children/students and staff who do not have symptoms should not be excluded from child care or school solely based on a positive skin or blood test.

Role of teachers, caregivers, and family

- Protect the privacy of the student/child and family.
- Collaborate with public health to ensure that discreteness is practiced and help ensure that all prescribed medications are taken as indicated. Local public health may wish to interview teachers or caregivers at some point during this process, which is referred to as a contact investigation. It is imperative that staff protect the child's and family's identity.

Resources

TB (tuberculosis) | CDPHE

Tuberculosis (TB) | CDC

Tularemia

What is tularemia?
Tularemia is an infection caused by *Francisella tularensis* bacteria. It can be transmitted to people through exposure to infected animals or environmental contamination. Hares, rabbits, and rodents are particularly susceptible to the disease and often die in large numbers during an outbreak.

Signs and symptoms
Tularemia illness ranges from mild to life-threatening. Symptoms depend on how the bacteria enter the body. All forms of tularemia result in a fever, which can be very high. Lymph glands usually swell. Ulcers can form at the site of exposure through skin due to fly or tick bites or direct contact. Eye exposure can result in irritation and inflammation. Oral exposure symptoms following ingestion of contaminated food or water include sore throat, mouth ulcers, and tonsillitis. Inhalation results in the most severe form of tularemia and symptoms include cough, chest pain, and difficulty breathing. Respiratory symptoms can also result from other forms of tularemia left untreated when the bacteria spreads to the lungs.

Incubation period
Usually three to five days but can be up to 14 days

Contagious period and spread
Tularemia is not known to spread person-to-person. It is spread through:

- Bites from deer flies or ticks (dog ticks and wood ticks in Colorado).
- Handling infected animals.
- Breathing dust or aerosol containing bacteria.
- Eating or drinking contaminated food or water.

Public health reporting requirements

- Tularemia infections are reportable to local or state public health within one working day.
- Report die-offs of hares, rabbits, or rodents to local public health.

Control of spread

- Tularemia occurs naturally in many parts of Colorado.
- Use insect repellents and treat clothing and gear to prevent tick and fly bites.
- Teach children to avoid touching or handling sick or dead animals. Adults should use care and wear gloves when handling sick or dead animals and avoid ticks (or fleas) that may be on the carcass looking for a new blood meal.
- Cook food thoroughly and make sure water is from a safe source.
- Check for ticks after outdoor activities and safely remove attached ticks as soon as possible.

Treatment
Tularemia is treated with antibiotic regimens that usually last from 10 to 21 days, depending on the stage of illness and medication prescribed.

Exclusion
None

Role of teachers, caregivers, and family

- Note any change in behavior of pets or livestock. Consult a veterinarian if they develop unusual symptoms.
- Check the area for carcasses prior to mowing and safely discard them to avoid mowing over dead animals.
- Report die-offs of rabbits and rodents to public health.

Viral meningitis (Aseptic meningitis)

What is viral meningitis?
Viral meningitis is a relatively common illness, but rarely is serious. Meningitis is an infection of the tissue that covers the brain and spinal cord with a virus. Viral meningitis is the most common type of meningitis and is usually caused by a group of viruses called enteroviruses. Other causes of viral meningitis include: measles, chickenpox, mumps, herpes virus, and West Nile virus. Viral meningitis can sometimes be confused with bacterial meningitis, which is much more serious. Increases in cases of viral meningitis occur regularly in the summer and fall and are not cause for alarm. People suspected of having meningitis should be seen by a health care provider.

Signs and symptoms

- Fever
- Severe headache
- Stiff neck
- Trouble waking up
- Sensitivity to light
- Confusion
- Nausea/vomiting
- Irritability

Incubation period
Dependent on the virus involved (i.e., incubation for enterovirus is three to seven days).

Contagious period and spread

- Contagious period: Varies by the virus causing the infection, but for viral meningitis caused by enterovirus, shedding of the virus in feces can continue for several weeks. Shedding from the respiratory tract usually lasts a week or less.
- How the infection spreads varies among the viruses that cause viral meningitis. Viral meningitis is most often spread through direct contact with nose/throat discharges or the stool of a person with infection.

Public health reporting requirements

- Individual cases of viral meningitis do not need to be reported to the state or local health department, but some diseases that can cause meningitis, such as chickenpox, mumps, and measles, are reportable.
- Report the infection to the staff member designated by the child care program or school for decision-making and action related to care of ill children. That person will work with public health to alert possibly exposed family and staff members to watch for symptoms.

Control of spread

- Encourage frequent and thorough handwashing.
- Encourage covering of mouth and nose when coughing or sneezing.
- Promptly disinfect contaminated surfaces (like eating/drinking utensils) and other commonly touched surfaces (like toys) and doorknobs soiled by secretions. See Disease Prevention: The Facility Environment.
- Consult with local or state public health about control measures.

Treatment
Children and staff with symptoms of viral meningitis should be referred to their health care provider for treatment and to distinguish between viral and bacterial meningitis, which is important in determining if close contacts need additional management.

Exclusion
Exclusion is usually not necessary for viral meningitis. However, meningitis caused by certain viruses, such as chickenpox, mumps, or measles, do require exclusion. See the sections of the guidance related to those viruses for more information.

Role of teachers, caregivers, and family

- In communication with health professionals and parents/guardians/caregivers, distinguish between viral and bacterial meningitis.
- Teach children/students to cover their noses and mouths when sneezing or coughing with a disposable facial tissue or an upper arm sleeve or elbow.
- Practice and encourage good hand-hygiene techniques, especially after coughing or sneezing.

Summary chart

Disease agent	Incubation period	Transmission	Contagious period	Report to public health*	Exclusion
Animal bites/rabies Rabies virus	Rabies: Eight days to six years or more (usually three to eight weeks)	Saliva of an infected animal, most commonly through a bite	As long as symptoms are present	**YES** (24 hours for animal bites)	**None** for animal bites
Campylobacter *Campylobacter* bacteria	One to 10 days (usually two to five days)	Fecal→oral spread, contaminated food/water, animals	While diarrhea is present; can spread for a few days after symptoms are gone	**YES** (Four days)	**YES** until 24 hours after diarrhea resolves
Chickenpox (Varicella) Varicella-zoster virus	10-21 days (usually 14-16 days)	Droplet/infectious discharges, skin contact	One to two days before the rash appears until all the blisters have crusted over (usually days after onset)	**YES** (Four days)	**YES** until all blisters have formed scabs and crusted over. If immunized with mild symptoms, exclude until 24 hours since last bump/blister
Chlamydia *Chlamydia trachomatis* bacteria	One to three weeks	Sexual transmission	Until treated	**YES** (Four days)	**None**
C. diff *Clostridium difficile* bacteria	Variable	Fecal→oral spread, contaminated surfaces	As long as bacteria are present	Single cases: **no** Outbreaks: **immediately**	**YES** until 48 hours after diarrhea resolves
CMV Cytomegalovirus	Variable. Several weeks to several months	Body secretions (primarily saliva and urine)	As long as the virus is present in body secretions (months or years)	Single cases: **no** Outbreaks: **immediately**	**None**
Common Cold A variety of viruses	One to 14 days (usually 48 hours)	Droplet/infectious discharges	One day before symptom onset and while symptoms are present	**None**	**None** It is recommended that symptomatic children be excluded from school/child care until they are fever-free for 24 hours without fever-reducing medication.
COVID-19 **(SARS CoV-2 Disease)**	14 days, with a median onset time of four to five days. The incubation period may be shorter or longer, depending on the variant that is circulating	Droplet/infectious discharges	Two days before symptom onset and for 10 days after symptoms start	**YES** (Four days)	**Yes** People with COVID-19 should isolate themselves for at least five days to protect others.
Croup	Two to seven days	Droplet/infectious discharges	One week before symptom onset to one to three weeks after symptoms	Single cases: **no** Outbreaks: **immediately**	**None** It is recommended that symptomatic children be

Disease agent	Incubation period	Transmission	Contagious period	Report to public health*	Exclusion
					excluded from school/child care until they are fever-free for 24 hours without fever-reducing medication.
Cryptosporidiosis *Cryptosporidium parvum* parasite	Two to 10 days (usually seven days)	Fecal→oral spread, contaminated food/water, animals	While diarrhea is present; can spread for several weeks after symptoms are gone	**YES** (Four days)	**YES** until 24 hours after diarrhea resolves; avoid swimming for two weeks after diarrhea
***E. coli* O157:H7 and other shiga toxin- producing *E. coli* (STEC)** *Escherichia coli* bacteria	One to 10 days (usually three to four days)	Fecal→oral spread, contaminated food/water, animals	While diarrhea is present; can spread for one to four weeks after symptoms are gone	**YES** (Four days)	**YES** until cleared by public health (negative stool testing may be required prior to return)
Fifth disease Human parvovirus B19	Four to 21 days	Droplet/infectious discharges	One week before rash appears	Single cases: **no** Outbreaks: **immediately**	**None**
Genital herpes Herpes simplex virus	Two to 12 days	Sexual transmission	Potentially lifelong	**None**	**None**
Genital warts Human papillomavirus	Variable	Sexual transmission	Potentially lifelong	**None**	**None**
Giardia *Giardia lamblia* parasite	One to three weeks (usually seven to 10 days)	Fecal→oral spread, contaminated food/water	While diarrhea is present; can spread for months after symptoms are gone	**YES** (Four days)	**YES** until 24 hours after diarrhea resolves
Gonorrhea *Neisseria gonorrhea* bacteria	One to 14 days	Sexual transmission	Until treated	**YES** (Four days)	**None**
Hand, food, and mouth disease Strains of enteroviruses	Three to six days	Droplet/infectious discharges, fecal→oral spread	One to three weeks for respiratory droplets; virus can be present in stool for several months	Single cases: **no** Outbreaks: **immediately**	**None** unless the child has mouth sores and is drooling uncontrollably
Head lice (Pediculosis) *Pediculus humanus*, the head louse	Nits hatch in 10-14 days, adults live three to four weeks	Direct contact with a person or object with infestation	As long as live lice are present	**None**	From end of school day until after first treatment
Hepatitis A Hepatitis A virus	Two to six weeks (usually four weeks)	Fecal→oral spread, contaminated food/water	Most contagious two weeks before symptom onset to one week after jaundice onset	**YES** (One working day)	**YES** until cleared by public health
Hepatitis B Hepatitis B virus	45-160 days (usually 90 days)	Infective blood or body fluids, sexual transmission	Several weeks before symptom onset and throughout the illness, some people carry virus for life	**YES** (Four days)	**None**

Disease agent	Incubation period	Transmission	Contagious period	Report to public health*	Exclusion
Hepatitis C Hepatitis C virus	14-180 days (usually 45 days)	Infective blood	One or more weeks before symptom onset and as long as the virus is present in the blood, which can be lifelong	**YES** (Four days)	**None**
Herpes (cold sores, fever blisters) Herpes simplex virus	Two to 14 days	Direct contact	As long as the sores are present	**None**	**None** unless the child has open sores and is drooling uncontrollably
HIV and AIDS Human immunodeficiency virus	Variable	Infective blood and some body fluids	Lifelong	**YES** (Four days)	**None**
Impetigo Streptococcal or staphylococcal bacteria	Seven to 10 days for streptococcal; Variable for staphylococcal	Direct contact	Until treatment with antibiotics for at least 24 hours, or lesions are no longer present	Single cases: **no** Outbreaks: **immediately**	**Yes** until 24 hours after antibiotic treatment
Influenza Influenza virus	One to four days (usually two days)	Droplet/infectious discharges	From slightly before symptom onset to about day five to seven of illness	**YES** (hospitalized cases or deaths in children <18 years — Seven days)	**Yes** It is recommended that symptomatic children be excluded from school/child care until they are fever-free for 24 hours without fever-reducing medication and other symptoms are improving
Measles (Rubeola) Measles virus	Eight to 14 days	Airborne/droplet/ infectious discharges	Four days before rash onset to four days after	**YES** (Immediately)	**Yes** until four days after rash onset
Meningitis (Bacterial) Bacteria such as *Neisseria meningitidis* (meningococcal), *Haemophilus influenzae* (H. flu), *Streptococcus pneumoniae* (pneumococcal)	Meningococcal: One to 10 days (usually less than four days) *Haemophilus influenzae* (*H. flu*): unknown (probably a few days) Pneumococcal: as short as one to three days	Droplet/infectious discharges	Until completing 24 hours of antibiotic treatment	**YES** meningococcal: **immediately** H. flu: **One working day** pneumococcal: **Four days**	**Yes** until 24 hours after treatment
Meningitis (Viral) Several different viruses	Depends on agents	Droplet/infectious discharges, fecal→oral spread	Depends on agent	Single cases: **no** Outbreaks: **immediately**	**None**
Molluscum	Two to seven weeks to six months	Direct/indirect contact	As long as lesions are present	Single cases: **no** Outbreaks: **immediately**	**None**

Disease agent	Incubation period	Transmission	Contagious period	Report to public health*	Exclusion
Mononucleosis Epstein-Barr virus	Four to six weeks	Saliva	Weeks to months after the initial infection	Single cases: **no** Outbreaks: **immediately**	**None**
MRSA Methicillin-resistant Staphylococcus aureus	Variable	Skin contact or contaminated items	As long as bacteria are present	Single cases: **no** Outbreaks: **immediately**	**None** unless required by health care provider; athlete exclusions may be necessary
Mumps Mumps virus	12-25 days (usually 16-18 days)	Droplet/infectious discharges, saliva	Two days before swelling onset to five days after	**YES** (Four days)	**Yes** until five days after swelling onset
Norovirus & viral gastroenteritis Various viruses, such as norovirus	Varies by virus (usually one to three days)	Fecal→oral spread, contaminated food/water	While diarrhea or vomiting is present and several days after symptoms are gone	Single cases: **no** Outbreaks: **immediately**	**Yes** until 48 hours after diarrhea and/or vomiting resolves
Pink eye (Conjunctivitis) Various bacteria and viruses, allergies, chemical irritation	Variable for all causes (Bacterial, viral, allergies, and chemicals)	Bacterial and viral: infectious discharges Allergies and chemicals: not contagious	Bacterial: as long as symptoms are present or until treatment has been started Viral: as long as symptoms are present	Single cases: **no** Outbreaks: **immediately**	**No** unless the child meets other exclusion criteria, such as fever or behavioral change
Pinworm	One to two months or longer	Feca→oral, indirect contact	As long as eggs are present	Single cases: **no** Outbreaks: **immediately**	**None** unless proper control measures cannot be followed
Pubic lice (crabs) *Phthirus pubis*, the pubic louse	Average life cycle is 15 days; infestation begins with transfer of louse	Sexual transmission	As long as lice are present	**None**	**None**
Ringworm (Tinea) Several fungi species	Four to 14 days	Skin contact/direct contact	As long as rash is present on skin	Single cases: **no** Outbreaks: **immediately**	**Yes** from end of school day until after first treatment
Roseola (Sixth disease)	Five to 15 days (usually nine to 10 days)	Droplet/infectious discharges	As long as virus is present in nose/threat secretions	**None**	**None** other exclusion criteria apply
Rotavirus	One to three days	Fecal→oral spread	As long as virus is in feces; from before symptom onset to 21 days after	**None**	**Yes** until 48 hours after diarrhea has resolved
RSV (Respiratory Syncytial Virus)	Two to eight days (usually four to six days)	Droplet/infectious discharges	Three to eight days after symptom onset; for infants and people with weakened immune systems can be over four weeks	Hospitalized cases in Denver metro area: **yes** Outbreaks: **immediately**	**None** It is recommended that symptomatic children be excluded from school/child care until they are fever-free for 24 hours without fever-reducing

Disease agent	Incubation period	Transmission	Contagious period	Report to public health*	Exclusion
					medication and other symptoms are improving
Rubella (German Measles) Rubella virus	14-21 days (usually 16-18 days)	Droplet/infectious discharges	Seven days before rash onset to five to seven days after	**YES** (One working day)	**Yes** until seven days after rash onset
Salmonellosis *Salmonella* bacteria	Six to 72 hours, but up to seven days (usually 12-36 hours)	Fecal→oral spread, contaminated food/water, animals	While diarrhea is present; can spread for a variable (weeks - months) period of time after symptoms are gone	**YES** (Four days)	**Yes** until 24 hours after diarrhea has resolved (negative stool testing may be required prior to return)
Scabies *Sarcoptes scabiei*, a mite	Two to six weeks if never infected, one to four days if infected before	Skin contact/direct contact	Until the mites and eggs are destroyed with medical treatment	Single cases: **no** Outbreaks: **immediately**	**Yes** from end of school day until after first treatment
Shigellosis *Shigella* bacteria	One to seven days (usually one to three days)	Fecal→oral spread, contaminated food/water	While diarrhea is present; can spread for weeks after symptoms are gone	**YES** (Four days)	**Yes** Until cleared by public health (negative stool testing may be required prior to return)
Shingles (Herpes Zoster) Varicella-zoster virus	10-21 days (usually 14-16 days)	Skin contact	Until all the blisters have crusted over	**None**	**None** as long as the blisters are covered
Staph infection	Variable	Skin contact or contaminated items	As long as the bacteria are present	Single cases: **no** Outbreaks: **immediately**	**None** unless required by a health care provider; athlete exclusions may be necessary
Strep throat *Streptococcus pyogenes* bacteria	Two to five days	Droplet/infectious discharges	Until treated with antibiotics for 24 hours, or 10-21 days for untreated cases	Single cases: **no** Outbreaks: **immediately**	**Yes** until 12 hours after antibiotic treatment
Syphilis *Treponema pallidum* bacteria	10 days to three months (usually three weeks)	Sexual transmission	Until treated	**YES** (One working day)	**None**
Tetanus *Clostridium tetani* bacteria	Two days to several months (usually eight to 14 days)	Through breaks in the skin	Not spread person-to-person	**YES** (Four days)	**None**
Tick-borne diseases	Varies	Bites from infected tick	Not spread person-to-person (except Colorado tick fever)	**YES** (Four days)	**None**
Tuberculosis *Mycobacterium tuberculosis*	Two to 10 weeks	Airborne	As long as symptoms are present or until case is on the treatment	**YES** (One working day)	**Yes** (active cases) until on treatment and cleared by public health

Disease agent	Incubation period	Transmission	Contagious period	Report to public health*	Exclusion
Tularemia	Up to 14 days (usually three to five days)	Varies	Not spread person-to-person	**Yes** (One working day)	**None**
Whooping cough (pertussis) *Bordetella pertussis* bacteria	Five to 21 days (usually seven to 10 days)	Droplet/infectious discharges	Until after the third week of coughing, or until after five days of treatment	**YES** (one working day)	**Yes** until five days after treatment or until three weeks after cough onset

*Outbreaks of any disease are reportable to public health immediately