Washington State Department of HEALTH

Infectious Disease Control Guide for School Staff

Washington State

Infectious Disease Control Guide for School Staff

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Questions about this guide should be directed to the Non-Healthcare Congregate Settings program in the Office of Communicable Disease Epidemiology at the Washington State Department of Health at nhcs-covid@doh.wa.gov.

To request this document in another format, call 1-800-525-0127. Deaf or hard of hearing customers, please call 711 (Washington Relay) or email doh.information@doh.wa.gov.

Acknowledgments

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Contents

Acronyms

AAP	American Academy of Pediatrics
AFM	Acute Flaccid Myelitis
AGP	Aerosol-Generating Procedure
AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Treatment
ASHA	American Sexual Health Association
BBP	Blood Borne Pathogens
BCG	Bacillus Calmette-Guerin vaccine
CDC	Centers for Disease Control and Prevention
CDI	Clostrioides Difficile Infections
CMV	Cytomegalovirus Infection
DCYF	Washington State Department of Children, Youth, and Families
DOH	Washington State Department of Health
DOSH	Division of Occupational Safety and Health
DT	Diphtheria/Tetanus
DTaP	Diphtheria/Tetanus/Acellular Pertussis vaccine
DTP	Diphtheria/Tetanus/Pertussis vaccine
EPA	United States Environmental Protection Agency
ESD	Educational Service District
EV-D68	Enterovirus D68
FERPA	Family Educational Rights and Privacy Act
HAV	Hepatitis A Virus
HBIG	Hepatitis B Immune Globulin
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HCP	Health Care Provider
HFMD	Hand, Foot, and Mouth Disease
HIPPA	Health Insurance Portability and Accountability Act
HIV	Human Immunodeficiency Virus
HSV	Herpes Simplex Virus
HPV	Human Papilloma Virus
ICP	Infection Control Program
IDRH	Infectious Disease and Reproductive Health
IGRA	Interferon-Gamma Release Assay blood test
LAIV	Trivalent Inactivated Influenza vaccine

L&I	Washington State Department of Labor and Industries
LHJ	Local Health Jurisdiction
LTBI	Latent Tuberculosis Infection
MDDHS	Michigan Department of Health & Human Services
MERS	Middle East Respiratory Syndrome
MMR	Measles, Mumps, and Rubella Vaccine
MRSA	Methicillin Resistant Staphylococcus Aureus
NASN	National Association of School Nurses
NASPHV	National Association of State Public Health Veterinarians
NAT	Nucleic Acid Test
NGU	Non-Gonococcal Urethritis
NIH	National Institutes of Health
OSHA	Occupational Safety and Health Administration
OSPI	Office of Superintendent of Public Instruction
PCC	Post-COVID Conditions
PCR	Polymerase Chain Reaction
PK-12	Pre-Kindergarten through 12th Grade
PPE	Personal Protective Equipment
PPD	Purified Protein Derivative
PrEP	Pre-Exposure Prophylaxis
RADT	Rapid Antigen Detection Test
RCW	Revised Code of Washington
RMSF	Rocky Mountain Spotted Fever
RPP	Respiratory Protection Program
RSV	Respiratory Syncytial Virus
STI	Sexually Transmitted Infection
SARS	Severe Acute Respiratory Syndrome
TB	Tuberculosis
Td	Tetanus/Diphtheria
Tdap	Tetanus/Diphtheria/Acellular Pertussis vaccine
TIV	Trivalent Inactivated Influenza vaccine
UCSF	University of California San Francisco
UW	University of Washington
VZIG	Varicella-Zoster Immune Globulin
WAC	Washington Administrative Code
WISHA	Washington Industrial Safety and Health Act
WSSDA	Washington State School Directors' Association
WSU	Washington State University

Introduction

The *Infectious Disease Control Guide for School Staff* was created for schools in Washington state by the Washington State Department of Health (DOH), in partnership with the Office of Superintendent of Public Instruction (OSPI). This guide is meant to help staff of pre-k through 12th grade (PK-12) districts and schools preserve and protect the health of students and employees by preventing and responding to infectious disease.

In this manual, you will find the following:

The Introduction

- The introduction addresses the regulatory authority and reporting requirements for infectious diseases in schools. It includes information on important resources for schools, including guidance on safe cleaning and disinfecting, guidance for aerosol generating procedures, and guidance for respiratory protection programs. The introduction also describes common indicators of infectious diseases in children.

Infectious disease sections

- The introduction is followed by alphabetized sections on conditions that you may encounter in school settings. Each disease-specific section follows the same format: a description of the disease, the incubation period (the length of time between an infection by a pathogen and when symptoms begin to develop), the infectious period (the length of time that a host can spread the pathogen to another susceptible host [e.g., a person, insect, or animal with a pathogen spreads the infection to another person]), school staff and nurse responsibilities, guidance for controlling spread, additional information, and relevant resources.
- The 2024 update includes several new sections, including COVID-19, Enterovirus, Mpox, Haemophilus influenzae, SARS/MERS and RSV.

Appendices

- Appendix I contains a list of links to sections of the Washington Administrative Code (WAC) and the Revised Code of Washington (RCW) that reference the laws and regulations for controlling the spread of disease in Washington PK-12 schools.
- Appendix II contains the website and phone number for each local health jurisdiction.
- Appendix III contains helpful resources for schools related to student health and infectious disease, as well as a full list of references used in creating this guide.
- Appendix IV has a full list of acknowledgments including all of the individuals who contributed writing and review to update this guide.
- Note that DOH's Safe Cleaning and Disinfecting Guidance for Schools is a separate document that has replaced the *Guidelines for Handling Body Fluids in Schools*, which used to be included as Appendix VIII of this guide.

This guide covers infectious diseases that are often seen in PK-12 schools or in school-age individuals. Some contagious diseases are not included because they are rarely seen in these settings. For some conditions, we included information on the effects that childhood diseases could have on adults when those effects are unusual or particularly serious. Examples include chickenpox, cytomegalovirus, erythema infectiosum ("Fifth disease"), measles, mumps, and rubella. Otherwise, this guide is not intended to be inclusive of all adult or employee disease, nor is it an exhaustive guide of all possible infectious diseases in school settings.

Some "nuisance" concerns included in this guide (for example, head lice, bed bugs, or ringworm) aren't particularly dangerous to the community's health but may cause considerable anguish and disruption to schools. Though these conditions are not a significant threat to health, consultation between school district administrators and local health jurisdictions is important for effective control in schools.

Several diseases addressed in this manual are preventable by vaccine. Continuing to implement the Washington state immunization law should reduce their incidence (RCW 28A.210.060-170). See the WA DOH Immunization Program website for information and resources on immunization requirements.

Regulatory Authority

The Washington Administrative Code (WAC) and the Revised Code of Washington (RCW) include laws relevant to infectious disease control in PK-12 schools. Links to the pertinent WACs and RCWs can be found in Appendix I. School districts should always refer to the most updated version of specific laws or regulations on the Washington State Legislature website.

In Washington state, local health jurisdictions hold authority for the control of diseases of public health significance. Schools should consult with their local health jurisdiction for guidance on specific measures for individual cases or outbreaks of disease. Please refer to Appendix II for contact information for your local health jurisdiction.

The COVID-19 pandemic highlighted the need to be knowledgeable about and consult with multiple state agencies for guidance on protecting an entire school population. Employee exposure is regulated by Occupational Safety and Health Administration (OSHA) and the Washington State Department of Labor & Industries (L&I). All employers must have an Exposure Control Plan and ensure that employees with potential exposures are trained according to their job descriptions and the exposures they may experience in their duties; see the L&I website for more information. An Exposure Control Plan for bloodborne pathogens template can be found at Sample Safety Programs & Plans.

Regulations

RCW 28A.210.010 (Contagious Diseases, Limiting Contact—Rules and Regulations) requires the State Board of Health, in consultation with the Superintendent of Public Instruction, to "adopt reasonable rules and regulations regarding the presence of persons on or about any school premises who have, or who have been exposed to, contagious diseases deemed by the State Board of Health as dangerous to the public health." WAC 246-110-010 defines a school as "each building, facility, and location at or within which any or all portions of a preschool, kindergarten, and grades one through twelve program of education and related activities are conducted for two or more children by or in behalf of any public school district and by or in behalf of any private school or private institution subject to approval by the state board of education."

The rules in Chapter 246-110 WAC Contagious Disease—School District and Childcare Centers "identify certain contagious diseases that may affect children, or others who are susceptible, in schools, and childcare centers. When an outbreak or potential outbreak of a contagious disease is identified in a school or childcare center, the rules in this chapter identify what schools, childcare centers and local health officers may do to control or prevent a potential outbreak of the contagious disease. These rules are in addition to other requirements imposed by Chapter 246-100 WAC, Communicable and certain other diseases and Chapter 246-101 WAC, Notifiable conditions."

WAC 246-101-420 Responsibilities of Schools establishes steps school districts must take for disease control and prevention, including:

1. Notify the local health jurisdiction of cases, outbreaks, and suspected outbreaks of notifiable conditions in Table HC-1 of WAC 246-101-101 that may be associated with the school.
2. Cooperate with the local health jurisdiction in monitoring influenza.
3. Consult with a health care provider or the local health jurisdiction for information about the control and prevention of infectious conditions, as necessary.
4. Cooperate with public health authorities in their investigation and control of cases, outbreaks, and suspected outbreaks that may be associated with the school.

WAC 246-101-420 also addresses confidentiality of medical information. When school staff knows a person is diagnosed with a notifiable condition, they may only release that information to others who are responsible for protecting the health of the public through disease control. Additionally, schools are required to implement policies and procedures to maintain confidentiality of medical information possessed by the school.

Disease Reporting, Control, and Exclusion

Local health officers are the primary resource for identifying and controlling infectious disease in the community, including in PK-12 schools. School staff who know of a case or suspected case of a notifiable disease must report the name and other identifying information to the principal or school nurse. School staff should also report suspected or confirmed outbreaks associated with the school. The school is required to notify its local health jurisdiction of cases, outbreaks, and suspected outbreaks of notifiable conditions such as contained in WAC 246-101-101 or other contagious diseases such as contained in WAC 246-110 associated with a school.

Local health officers shall take appropriate action necessary to control or eliminate the spread of disease. They might require reports of additional diseases and conditions within their jurisdiction. There are several options available to local health officers per WAC 246-110-020, including but not limited to:

1. Canceling selected school activities or functions;
2. Excluding any students, staff, and volunteers who are infectious or exposed and susceptible to the disease;
3. Closing the affected schools;
4. Closing other schools in the local health officer's jurisdiction.

Before taking action, local health officers are required to discuss the ramifications of their actions with the superintendent of the school district. They must also provide the board of directors and superintendent with a written order directing them to act. See WAC 246-110-020 for additional requirements.

For temporary exclusion of inadequately immunized (susceptible) students and staff during a disease outbreak, consult with your local health jurisdiction. Refer to the Washington State Department of Health (DOH) Immunization Manual for Schools, Preschools and Child Care Facilities for information on immunization requirements and information on excluding children who are out of compliance with immunization requirements.

Both Chapter 246-100 WAC Communicable and certain other diseases and Chapter 246-101 WAC Notifiable conditions define "health care provider" as "any person having direct or supervisory responsibility for the delivery of care who is: (a) Licensed or certified in this state under Title 18

RCW." As health care providers licensed under Title 18 RCW, school nurses (registered nurses) need to follow the requirements of the following WACs:

1. WAC 246-101-101 Notifiable conditions--Health care providers and health care facilities
2. WAC 246-101-105 Duties of the health care provider
3. WAC 246-101-110 Means of notification
4. WAC 246-101-115 Content of case reports
5. WAC 246-101-120 Handling confidential information

Safe Cleaning and Disinfecting Guidance for Schools

For detailed information on hand washing procedures, standard and general precautions for handling bodily fluids in schools, and safe cleaning, disinfecting, and sanitizing guidelines, please see the DOH Safe Cleaning and Disinfecting Guidance for Schools. This guidance is referenced throughout this manual, particularly when discussing how to control the spread of disease. It replaces the *Guidelines for Handling Body Fluids in Schools*, which used to be included as Appendix VIII of this guide.

Hand Washing and Hand Sanitizers

Frequent hand washing is one of the most important techniques for preventing the transmission of disease. For proper handwashing:

- Use a plain (non-antimicrobial), unscented liquid soap and warm water for routine hand washing.
- Scrub hands vigorously for at least 20 seconds.
- Rinse under a stream of warm water.
- Use a paper towel to turn off the water faucet.
- Use a fresh paper towel to thoroughly dry hands.
- Use a paper towel to open any exit door.

Hand sanitizers are not as effective as washing with soap and water. They should not be used as a replacement for standard hand washing. When hand washing facilities are not available, an ethanol alcohol-based (minimum 60 percent) hand sanitizer can be used, preferably in fragrance-free gel or foaming form. Hands must be washed with soap and running water as soon as possible. Hand sanitizers are not appropriate when there is significant contamination, such as what occurs during a visit to a petting zoo or farm, after handling an animal, after changing a diaper, after playing outside, before preparing food or eating, after touching an infected wound, or after using the bathroom. Hand sanitizers have not been shown to be effective against norovirus or *Clostridium difficile* spores or for soiled hands. We recommend using caution to avoid accidental ingestion or abuse of hand sanitizers by students.

For detailed information on hand washing procedures please see the DOH Safe Cleaning and Disinfecting Guidance for Schools.

Ventilation and Air Quality

Ventilation is an important strategy for schools to reduce transmission of respiratory viruses and other infectious diseases. Good ventilation can reduce the number of virus particles in the air, which reduces the likelihood of spreading respiratory illnesses. Steps to improve air quality can include

consulting with an HVAC specialist to determine the best way to maximize a system's ventilation and air filtration capabilities, opening windows and doors when it is safe to do so, and using portable HEPA filter air cleaners. For detailed guidance, see WA DOH's Ventilation and Air Quality for Reducing Transmission of Airborne Illnesses and the CDC's Ventilation in Buildings guidance.

Aerosol Generating Procedures

Some students in PK-12 schools, including those with tracheostomies and those using machines that assist with breathing, like ventilators, may require medical procedures that have a higher likelihood of generating infectious respiratory aerosols than talking, breathing, coughing, or other normal activities. These aerosol-generating procedures (AGPs) include open suctioning of airways and ventilation (both invasive or non-invasive, including BiPAP and CPAP). When an AGP is performed, it can put school staff, other students, and any other nearby people at risk of exposure to infectious diseases.

For recommendations on performing AGPs in schools, please see Guidance for Aerosol-Generating Procedures for K-12 Schools.

Respiratory Protection Programs

A written Respiratory Protection Program (RPP) is a formal plan that, when enacted, protects staff from respiratory hazards. Washington law (WAC 296-842) **requires all employers** to provide an RPP if their staff may be exposed to high levels of airborne hazards. This includes PK-12 school districts.

An RPP helps PK-12 school districts prepare for potential respiratory communicable disease outbreaks. The program should have provisions for respirator fit testing for the staff who will respond to an outbreak at each school. The plan should also be scalable, with the ability to add more personnel when needed – particularly when an outbreak is a public health emergency.

Maintenance and custodial staff may require respiratory protection for cleaning activities related to student illness. They may also use respirators during other facility maintenance tasks.

Respiratory Protection Program Requirements

A respiratory protection program requires the following, per WAC 296-842-12005:

- A Respirator Program Administrator
- Written procedures and records
- Criteria for appropriate respirator selection
- Medical evaluation of respirator users
- Fit-testing of face-fitting respirators for each user
- Respirator maintenance, repair, and storage procedures
- Assured air quality verification procedure for supplied air respirators
- Employee training

School Protocols for Respiratory Protection

When a high number of students fall ill with a respiratory illness, school health staff can initiate protective measures from the RPP. These actions might include:

- Isolating students with symptoms of respiratory illness.

- Asking students with symptoms and staff working in the school health room to wear masks.
- Cleaning the health room more frequently or thoroughly.
- Reminding students to wash their hands and practice good respiratory etiquette, such as sneezing into an elbow.
- Reminding families to keep ill children at home if they cough excessively, have a fever, or don't feel well enough to participate in school.

Respirator fit testing is an important component of an RPP. This involves testing whether a respirator forms an adequate seal around the wearer's face. Determine which staff members will respond to a communicable disease outbreak at your school and conduct fit testing for those staff. If an outbreak becomes a public health emergency, additional school personnel are likely to have sustained contact with someone with an airborne transmissible disease, and they should also be fit tested. Conducting annual fit-testing of your staff members who will respond in either circumstance will help you stay prepared.

Respiratory Protection Program Templates and Contact Information

For a sample Respiratory Protection Program template, refer to the L&I Respirator Program Template for COVID-19 Hazards. This was developed by Washington State Labor and Industries (L&I) for the COVID-19 pandemic and may be adapted for other uses. A broader RPP template may be needed to address other respiratory hazards, such as chemical exposures. For more information about employee protection, refer to L&I Sample Safety Programs & Plans. If you have questions about L&I policies or resources, please contact L&I at EyeOnSafety@lni.wa.gov.

At-Risk Populations

In any school, certain individuals may have a higher risk of complications if they're exposed to some diseases. Students and staff who have anemia, immunodeficiencies, chronic disease, nutritional deficiencies, debilitating disease, or are pregnant should be informed of any possible risks of acquiring an infection. The responsibility of the school is not to determine the extent of that risk, but to inform these individuals or their parents or guardians whenever there is increased risk of exposure to an infectious disease and to encourage them to consult with their licensed health care provider. The licensed health care provider will assess the risk and make appropriate recommendations for prevention and treatment.

Home/Hospital

Home/hospital instruction is an OSPI program that provides tutoring to students who are temporarily unable to attend school for an estimated period of between four and 18 weeks because of temporary physical or mental disability or illness. Tutoring is provided at home or in a health facility to these students. The program does not provide tutoring to students caring for an infant or a relative who is ill. Find detailed information at the OSPI Health Services Web site at Home/Hospital Instruction | OSPI or by contacting the OSPI Health Services office at 360-725-6040.

Common Indicators of Infectious Diseases in Children

Prompt identification is important to the control of infectious diseases. This guide provides distinguishing characteristics of various infectious diseases along with the school's responsibility for intervention. The physical and behavioral indicators listed below are nonspecific and may not in themselves suggest the presence of an infection. Refer to the individual disease section of this guide for specific information on each condition. Students with symptoms may need to go home, depending on the symptoms and their severity.

Classroom teachers and other school staff often spend several continuous hours a day with their students. This can position them to detect early physical and behavioral changes in students who are ill at school, as they observe differences in students' usual patterns. When a notifiable condition is suspected, contact the local health jurisdiction. The local health jurisdiction will help the school administrator, or their designee, decide whether a student should attend school and if there are implications for the student's participation in activities such as physical education, athletics, field trips, and lunchroom work.

Note: Numerous studies have demonstrated that implicit bias may cause symptoms to be more easily dismissed when reported by children of color. School personnel must pay attention to their responses to complaints of illness and maintain awareness of how their implicit bias may affect how they interpret these complaints or presentations. Take care to understand institutionalized biases in health education that may create inequities in how symptoms are evaluated. For example, lesions on darker skin are often diagnosed later in the course of disease, creating disparities in outcomes. See issue brief: Use of Race in Clinical Diagnosis and Decision Making: Overview and Implications.

Appetite

Often, a student who is ill or becoming ill with an infection will exhibit changes in eating habits. They may "pick at" solid foods, eat lightly, want only certain foods, or prefer liquids.

Behavior

Irritability may be associated with illnesses, often because of the accompanying fatigue, fever, and discomfort. Play activities may diminish and the student may act fatigued, drowsy, or indifferent.

Fever

While fever in and of itself is not generally harmful, it often reflects a contagious viral infection. Fever is a concern when it suggests the presence of an infectious disease. *Students with a fever of 100.4°F (38°C) or higher should be sent home from school, especially if other symptoms are apparent.* Notify the student's parent or guardian.

Symptomatic treatment may include comfort measures such as hydration, cool packs, or blankets. Medications should not be administered without a medication authorization signed by a parent or guardian and a licensed health care provider. Aspirin should not be administered for fever or suspected viral illnesses because of the possible association with Reye syndrome.

Skin Color

A pasty, pale appearance might signal an illness, especially if it is a change from a student's normal skin color. The development of any of the following might also indicate illness:

- A yellow tinge to the eyes or skin
- A flushed appearance with rosy cheeks and glassy or red eyes
- A grayish skin tinge for students with darker skin

Note: Pallor may be difficult to detect in dark toned skin and may present as ashen or gray. In brown toned skin, the skin may be more yellowish in color. Looking at the palm of the hands may provide a better method for identifying pallor in individuals with darker skin tones.

Rash

While a rash in and of itself is not generally harmful, it may reflect a contagious viral or bacterial infection, or require additional monitoring. Rash-like symptoms are a concern when it suggests the presence of an infectious disease or severe allergic reaction. Students should not be excluded for chronic conditions such as eczema, psoriasis, or recurrent hives. For guidance on exclusion for rash related to infectious conditions, see the disease specific sections. The student's parent or guardian should be notified, and a medical evaluation should be recommended. If you refer a student to an HCP, advise the student's parent or guardian to inform their HCP's office staff of the presence of a rash illness so they can arrange appropriate medical isolation before the visit.

The differential diagnosis of rash illnesses can be very difficult. Even a licensed health care provider (HCP) may require lab tests to confirm a diagnosis. If measles or rubella is suspected, the school must notify the local health jurisdiction immediately.

Change in Bowel Habit

Diarrhea can accompany several infectious diseases. Conversely, an intestinal infection can also cause sluggishness of the bowels and constipation, sometimes with abdominal cramps. Cramps can be due to inactivity, a change in the ill student's level of activity, or dehydration that often occurs during infections. Cramping accompanied by fever and bloody diarrhea are always serious medical concerns and should be immediately referred to a health care provider for evaluation.

Diarrhea, or even apparently normal feces following the resolution of diarrhea, might carry infectious organisms that can transmit disease to others. The local health jurisdiction may require children or employees with certain infections to stay home from school until they test negative for the infection.

If a student vomits or has diarrhea at school, contact their parent or guardian and send the student home for further observation.

Nasal Discharge and Obstruction

Clear nasal discharge might signal an infection such as a cold. It can also indicate an allergic reaction, especially if it's accompanied by watery eyes. Yellow or green discharge may indicate an infection or obstruction by a foreign body. Breathing can be noisy if the nasal passages are obstructed. If a student's breathing is labored, make an immediate medical referral.

Sore Throat

A sore throat can be a minor problem, but it can also indicate more significant infections, such as streptococcal pharyngitis or infectious mononucleosis. If the sore throat is accompanied by fever, difficulty swallowing, or swollen lymph nodes (glands), notify the parent or guardian and recommend medical evaluation.

Cough

Some chronic or allergic conditions are accompanied by a cough. However, a cough may also indicate an infectious disease. Persistent cough needs medical evaluation, especially when it occurs with other symptoms, such as gagging after episodes of coughing, a whooping sound, vomiting, fever, loss of appetite, or weight loss.

Earache and Discharge from Ear

A student might complain, pull at the ear, or put a hand to the ear if there is discomfort. Earache should be referred for medical care, particularly when any drainage is seen running from the ear, such as blood, pus, or fluid.

Pain (Back, Limbs, Neck, Stomach)

Pain in the body and limbs can be a normal part of the growth process, especially in adolescents. However, leg and back pain can also be signs of infectious diseases. Prolonged back pain is cause for medical evaluation. Pain in an expanding area of skin redness can be a symptom of a bacterial infection. Stomach pains or cramps may not signal serious disease in children, although appendicitis must be considered when abdominal pain is severe or persistent. Gastrointestinal disturbances, such as vomiting, diarrhea, and constipation, may be accompanied by abdominal pain (see section on Change in Bowel Habits above). Students who are frequently absent for abdominal pain should receive medical evaluation.

Athlete's Foot (Tinea Pedis)

Description

Athlete's foot is a skin infection caused by a fungus. It can lead to scaling, cracking, and peeling between toes and other places on feet. Sometimes, it forms blisters filled with thin, watery fluid. The infected areas usually itch, sting, burn, or give off a foul scent.

Athlete's foot is a common infection in adolescents and adults, but it is relatively uncommon in children before puberty. Similar fungal infections can develop in other areas, such as tinea corpora on the head or tinea capitis on the rest of the body. These types of fungal infections are known as ringworm. Refer to the section on ringworm for more information.

Mode of Transmission

Athlete's foot is spread through direct contact with skin scales that contain the fungi or with fungi in damp areas – such as swimming pools, locker rooms, and showers. It can also be spread through family household members. Someone might be predisposed to an athlete's foot infection if they have diabetes mellitus or wear occlusive footwear that prevents moisture on feet from drying.

Incubation Period

Unknown.

Infectious Period

Athlete's foot is infectious while the fungus is present on the skin and on contaminated surfaces.

School Staff/Nurse Responsibility

1. Over-the-counter topical medications are usually sufficient to treat athlete's foot. In persistent, severe cases, or when a secondary infection is suspected, referral to a licensed health care provider may be necessary.
2. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. Exclusion is not recommended for athlete's foot in the absence of open sores, weeping, or crusting.
4. The fungus that causes athlete's foot thrives in damp, moist environments. It is essential to clean and dry gymnasiums, showers, and pool area floors thoroughly and frequently to prevent the fungus from growing.
5. Students with an active infection should not be barefoot on wet or damp areas where the infection can be transmitted.
6. Instruct individuals with athlete's foot to:

- **Keep their feet dry**, especially between the toes. Thoroughly dry off feet and toes whenever they're wet from water or sweat.

- Remove shoes and socks to expose their feet to the air whenever possible.
- Wear clean, dry socks or stockings made of natural material, such as cotton or a synthetic fabric designed to draw moisture away from the feet.
- Change socks or stockings more than once a day, as necessary.

Additional Information

- Physical education teachers can help prevent the spread of athlete's foot by ensuring proper cleaning and drying of locker rooms, showers, and pool areas, particularly floors.
- Remind students about the causes, means of transmission, and prevention of this condition.

Bed Bugs

Description

Bed bugs are oval, rust colored, parasitic insects that are about the size of an apple seed as adults. They can be found in a variety of dwellings, but they can be particularly problematic in buildings with shared housing, such as hotels, motels, and apartment buildings. Bed bugs hide in mattress creases or in cracks and crevices during the day and feed on human blood at night.

Bed bugs bite and can cause local skin reactions but they are not known to spread any human diseases. The bites are small, raised red bumps – often in a line – that may be itchy or painful. It is rare for a school to have bed bug infestations because bed bugs feed at night.

Mode of Spread

Bed bugs could be brought into school by students, staff clothing, or belongings. Bed bugs spread through contact with personal articles such as bedding or infested clothing. Animals do not transmit bed bugs.

Survival

Bed bugs can survive up to one year between blood meals.

Bed bugs might not die during cold winter months. Survival for adults and eggs can occur at or above 10°F.

Infectivity

Bed bugs do not spread diseases between people.

School Staff/Nurse Responsibility

1. If a bed bug is found on a student, their clothing, or belongings, it is not necessary to send the student home. Notify their parent or guardian.
2. Make a referral to a licensed health care provider as needed for a diagnosis if bed bugs are observed or suspected.
3. If bed bugs are detected, collect a sample for identification by a professional entomologist or pest management specialist. Bed bugs can closely resemble other insects, so accurate identification is essential.
4. Instruct the family to wash school clothing and other personal items the student brought to school, such as backpacks, in 130° F water. Machine-dry the materials using the hottest setting for at least 20 minutes. For additional information, see Bedbug Bites | HealthyChildren.org
5. Assess the family's situation and, if necessary, help the family connect with community resources.
6. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. If a bed bug is tentatively identified, a person experienced with bed bug identification and management should thoroughly inspect the area.
4. Thoroughly clean the building location where the bed bug was found. Professional advice may be needed. If there are concerns about bedbug infestation at school, focus cleaning on areas where people may sleep, such as bedding and couches. Vacuum carpeting and crevices. Wash fabric items and dry them in a hot dryer. Personal items such as coats and backpacks should be stored in plastic containers or bags (both at home and at school) while the problem is being resolved.
5. Monitor and re-inspect the classroom, areas with personal belongings, and other storage areas.

Please note: *these measures are not necessary when a student was bitten by bedbugs at home and there has not been bed bug detection at school. While bedbugs do not transmit disease, there may still be stigma associated with bedbugs and it is important to protect the privacy of students and staff who may have an infestation at home or transmitted infestation to a school.*

Additional Information

General maintenance measures will protect against bed bugs in schools:

- Eliminate clutter that can shelter pests, such as cardboard boxes.
- Seal cracks and crevices in walls.
- Minimize upholstered furniture in the classroom. Launder floor pillows, mats, and shared fabric items regularly, and dry them in a hot dryer.
- Vacuum carpeted areas regularly.
- Backpacks and coats can spread pests such as bed bugs. Use separate lidded plastic containers or bags for these items and for lost and found collections.

Resources

- Washington State Department of Health (DOH): Bed Bugs | DOH
- Washington State University (WSU): Bed Bugs (2011) | WSU Integrated Pest Management
- Michigan Department of Health & Human Services (MDHHS): Bed Bugs – What Schools Should Know (2010) | MDHHS

Bites

Animal Bites and Scratches

Description

Bites and scratches from animals carry several risks:

1. Injury and damage to skin, muscles, and other tissues
2. Infection by pathogens from the animal, including the possibility of rabies when the bite is from a mammal
3. Infection by human skin organisms and environmental organisms introduced into a bite or scratch wound
4. Toxic exposures (e.g., certain snakes, insects, spiders, or other venomous animals, which are never appropriate for school settings)

Small mammals, especially rodents such as mice, rats, gerbils, guinea pigs, and hamsters, in a school room could be a likely source of bites and scratches to children. Bites or scratches from these animals are generally minor injuries; however, precautions against infection, such as thorough wound cleansing, should still be taken as these animals may carry pathogens, some that are serious, that can be transmitted to people. Factors that increase the risk of infection following an animal bite or scratch include age (younger than 5 years or 65 years and older), underlying immunosuppression, bite or scratch from a cat or rodent, or delayed presentation for wound care. Although tetanus is a common concern in connection with a bite or scratch, other infections, severe bruising, or other injuries may occur.

All animal bites and scratches in a school setting should be treated immediately with basic first aid and referral for medical assessment and care. Rare infections, such as lymphocytic choriomeningitis virus and rat bite fever, can spread from rodents; other animals can also spread other rare infections. Animal feces, which can contaminate the entire animal and their environment, can transmit infections such as salmonellosis. Because of these risks, hand washing with soap and running water is important after handling animals or anything in their environment. Some animals should never be present in school rooms and contact with some animals should be restricted to certain age groups (e.g., reptiles, amphibians and live poultry should not be in facilities with children younger than 5 years of age).

Any mammal, including people, can become infected with rabies. Bites from certain wild or ill mammals, especially bats, carry a higher risk of transmitting rabies. Any animal raised indoors and kept inside in a cage has minimal risk of carrying rabies. Rabies is almost always a fatal disease once symptoms develop. Immediate wound cleansing followed by prompt medical treatment following an animal bite or scratch can reliably prevent rabies from developing. Any suspected human exposure to rabies from an animal should be evaluated by your local health jurisdiction or a designated public health authority.

Mode of Transmission

Pathogens, such as bacteria or viruses, in an animal's mouth or on its claws or other body parts can cause infection. A bite or scratch can also become infected with organisms on skin or from other sources. Certain animal bites and scratches can transmit infectious conditions such as

rabies or other serious infections. In addition, touching an animal or animal environment can contaminate hands and lead to disease transmission through hand-to-mouth contact.

Incubation Period

The incubation period for rabies is typically three to 12 weeks. Skin and soft tissue infections typically occur within a few days of the initial trauma. Other diseases that can be passed from animals to people through bites and scratches or hand-to-mouth contact have varying incubation periods.

Infectious Period

The infectious period is the length of time that a host (e.g., an animal with a pathogen) is able to spread the pathogen to another susceptible host (e.g., a person). Animals with rabies may be infectious for varying periods of time. Rabid animals can be infectious without showing classic symptoms of rabies, such as foaming at the mouth or aggression.

School Staff/Nurse Responsibility

1. Provide basic first aid immediately. Wash the wound thoroughly with soap and running water.
2. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
3. Refer to district infection control program protocols and policies for infectious diseases.
4. Notify a parent or guardian.
5. Immediately report any suspected rabies exposure or known toxic or venomous bites to your local health jurisdiction. Evaluation of the animal may be necessary. Washington State Department of Health also recommends reporting any dead or sick bats identified on school property or in areas where children may be present to your local health jurisdiction.
6. Make a referral to a licensed health care provider to evaluate a bite or scratch, to provide a tetanus booster, if needed, and to provide any additional medical care for bruising, skin damage, or other injuries.
7. If the bite came from a bat or another wild animal, do not touch or move the animal. Contain the animal only if it is safe to do so. For example, put a bucket over a bat on the ground. Contact your local animal control agency and local public health jurisdiction.
8. Report animal bite incidents to your local animal control agency if the animal poses a threat to the public. Animal bites should also be reported to your local health jurisdiction if rabies exposure cannot be ruled out.
9. Maintain and support confidentiality for students and/or staff.
10. Refer to any district policies and procedures related to animals in the classroom. If the district does not have any, consider adopting them. Guidance is available in the *Animals, Management, and Pesticides* section of the DOH School Environmental Health and Safety Program site.
11. If the bite or scratch occurred on school grounds, during school hours, or while in the care of school staff, report it to the building administrator. Document the incident according to district policy and procedure.
12. Retain thorough documentation and evidence.

Additional Information

- Teach students not to touch wild or unfamiliar animals, particularly bats and any animal that seems sick.
- Do not allow students, teachers, or visitors to bring wild, exotic, or aggressive animals onto school property.
- Supervise students to wash their hands properly after handling an animal or anything in its environment, using soap and vigorous washing with running water. Hand sanitizers are not appropriate for cleaning if there is visible contamination on the hands. Hand sanitizers can be useful if immediate handwashing is not possible. If using hand sanitizer, follow up with handwashing as soon as possible.
- Refer to the *Health and Safety Guide Section for K–12 Schools in Washington*, Section O: Animals in Schools and Appendix F: Animals in Schools.
- When human exposure to rabies is suspected, immediately report it to the local health jurisdiction.
- The Washington State Department of Health School Environmental Health and Safety Program recommends that districts have animal policies and procedures that at a minimum:
    - State wild, dangerous, or aggressive animals should not be allowed in school facilities or on school property. Only allow animals that are approved under written policies or procedures to enter school facilities or be on school property. This does not include service animals.
    - For any animals allowed in school facilities, address the prevention of:
        - Spread of pathogens from animals to people
        - Allergic reactions
        - Exposure to animal waste materials and contaminated environments
        - Lack of proper handwashing after handling animals, their bedding or supplies, or anything in their environment
    - Ensure proper care and adult supervision over any animals in a school. Seek veterinary care if any animal in the care of the school shows any sign of illness.
    - Address service animals in the school facility that are not well behaved or present a risk to health and safety.

Resources

- Washington Administrative Codes (WACs):
    - WAC 246-100-191 Animals – General measures to prevent human disease
    - WAC 246-100-192 Animals in public settings – Measures to prevent human disease
    - WAC 246-100-197 Rabies – Measures to prevent human disease
    - WAC 246-100-201 Psittacosis – Measures to prevent human disease.
- Washington State Department of Health (DOH): Rabies Resources | DOH
- Centers for Disease Control and Prevention (CDC): Healthy Pets, Healthy People | CDC
- National Association of State Public Health Veterinarians (NASPHV):
    - Compendium of Measures to Prevent Disease Associated with Animals in Public Settings (2023) | NASPHV; see Appendix 4: Guidelines for Exhibition of Animals in School and Childcare Settings
    - Non-Traditional Pets Compendium (2022) | NASPHV; see Appendix F: Guidelines for Animals in Schools, Childcare Settings, and Long-Term Care and Assisted Living Facilities

Human Bites

Description

Human bites have a higher complication and infection rate than animal bites. Wounds on the lips and the tissue surrounding the fingernails account for most self-inflicted bites that come to the attention of medical personnel. These bites include "love nips", nail biting, or thumb-sucking, and are usually considered minor injuries. Occlusional bites (made by the upper and lower teeth closing) affect the ends of the index and long fingers most frequently, but they can affect any part of the body. Human bites can also be a sign of child abuse, warranting further investigation.

Though tetanus might be the first infection that comes to mind in connection with a bite, other infections, severe bruising, or skin cuts may occur. These injuries may require first aid and referral for medical care.

Mode of Transmission

Bacteria in the mouth or on the skin can cause serious infections. Human bite wounds may be associated with transmission of viral pathogens, including Hepatitis B, Hepatitis C, and Herpes Simplex Virus.

Infectious Period

Development of infection from a bite depends on the depth of the wound, the extent of tissue damage, and the type of infecting bacteria. Organisms may be antibiotic resistant. Common organisms are streptococci and *S. aureus*. Other organisms are *Eikenella, Fusobacterium, Peptostreptococcus, Prevotella,* and *Porphyomonas spp.*.

School Staff/Nurse Responsibility

1. Provide basic first aid immediately. Wash the wound thoroughly with soap and water.
2. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
3. Refer staff to HR when bitten and refer to any district infection control program protocols and policies for infectious diseases.
4. Notify a parent or guardian of the bite.
5. Make a referral to a licensed health care provider for evaluation of the bite and for additional medical care for bruising, skin damage, or other injury if needed. In the days after the bite, refer for evaluation any signs of infection such as increasing swelling, redness, and/or discharge.
6. Report any suspected child abuse. Information on how to and who to report to can be found at How to Report Child Abuse or Neglect | Washington State Department of Children, Youth, and Families (DCYF).
7. Make a referral to a licensed health care provider for a tetanus booster, if needed.
8. Report the incident to a building administrator and document the incident according to district policy and procedure.
9. Retain thorough documentation and evidence.
10. Maintain and support confidentiality for students and/or staff.

Chickenpox (Varicella, Zoster)

Description

Chickenpox (varicella), the primary infection, is an acute viral illness characterized by a fever, fatigue, and a generalized rash. The typical rash is red and itchy, and it progresses to fluid-filled blisters called vesicles that eventually dry out and then crust over. It usually appears on the chest first, then the back, before spreading over the entire body (including mouth, eyelids, or genital area).

When someone vaccinated for chickenpox catches the illness, it's called a breakthrough disease. These cases are usually very mild. They will have fewer lesions, which may not appear typical and may not have vesicles. They are less likely to have a fever and usually recover faster.

After a chickenpox infection, the virus stays inactive (dormant) in the body. Reactivation of this virus later in life causes herpes zoster, also known as shingles. Herpes zoster causes pain (post-herpetic neuralgia) over the pathways of the sensory nerves under one body area. The pain can be severe. An outbreak of small vesicles in the same area follows. The virus, which is present in the vesicle fluid of a person who has herpes zoster, is contagious. It can cause chickenpox in a non-immune individual.

This illness is often more severe in teens, adults, infants, and those who are immunocompromised. A primary maternal chickenpox infection during the first or second trimester of a pregnancy is associated with a low risk (less than 2 percent) of abnormalities in newborns. Pregnant people who are unimmunized that have been exposed to somebody with chickenpox primary infection, breakthrough disease, or shingles should contact their doctor.

Mode of Transmission

Transmission of this highly contagious disease is often by direct contact with an infected person. Droplets of secretions from the respiratory tract can spread it through air. It can also be spread indirectly through articles that are freshly soiled by discharges from vesicles (blisters) and mucous membranes of infected people. Chickenpox is not transmitted to or from animals.

Incubation Period

10 to 21 days, usually 14 to 16 days.

Infectious Period

Persons with varicella are considered infectious from 48 hours before the rash appears and until all lesions are crusted over (on average, four to seven days after rash onset).

School Staff/Nurse Responsibility

The identification of a single case of varicella should trigger intervention measures because this case could lead to an outbreak. Varicella outbreaks have been documented even in highly vaccinated populations, and vaccinated people have acted as the index cases in several outbreaks. Because one case of chickenpox in a school represents the potential for an outbreak, the local health jurisdiction should be notified whenever chickenpox occurs in a school environment.

1. Refer students with suspected chickenpox to a licensed health care provider. During an outbreak, laboratory confirmation of varicella is recommended for one or more cases (regardless of the person's vaccination status), especially at the beginning of the outbreak.

Before visiting a licensed health care provider, parents and guardians should inform the office of the presence of a rash illness so appropriate medical isolation can be arranged during the visit.

2. Any time a case of chickenpox occurs in a school, inform students and staff with certain high-risk conditions (e.g., anemia, immunodeficiencies, and pregnancy) of the increased risks of acquiring the infection. Refer them to their licensed health care provider for guidance. Individual student health plans for high-risk students should include planning for exclusion, in consultation with the student's licensed health care provider, to avoid contact with specific infections.
3. In the case of further spread of an outbreak, notify classmates' parents and guardians of the presence of chickenpox in the class or at the school as appropriate.
4. Inform the parents and guardians that children with chickenpox should not receive aspirin because of its possible association with Reye Syndrome.
5. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Screen students for any school vaccine entry requirements.
2. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
3. Refer to district infection control program protocols and policies for infectious diseases.
4. Exclude students with chickenpox from school until all lesions have crusted.
5. Advise parents of children without evidence of varicella immunity that they should have their child vaccinated with the appropriate dose. If vaccination is contraindicated or refused, exclude the child from school up to 21 days after the last case is identified.
6. If a student develops a rash following varicella vaccination, advise their parents or guardians to consult a primary care provider for guidance on communicability and safe return to school.
7. Clean or dispose of any articles soiled with nose and throat discharges.
8. Instruct students not to share items that may be contaminated with saliva, such as beverage containers.
9. Remind students to cover their mouth with a tissue when coughing or sneezing. If no tissue is available, encourage students to "catch your cold in your elbow" by covering their mouth and nose with the crook of their arm and coughing or sneezing into their shirt or coat sleeve.
10. Teach and encourage proper hand washing techniques.
11. Dispose of bandages that have been in contact with the vesicles (blisters) in appropriate bagged receptacle.
12. Disinfect surfaces that have been in direct contact with fluid from the vesicles (blisters) (see Safe Cleaning and Disinfecting Guidance for Schools).

Clostridioides difficile (C. *difficile*, C. *diff* or CDI) (formally *Clostridium difficile*)

Description

Clostridioides difficile (C. *difficile*, C. *diff*, or CDI) (formerly known as Clostridium *difficile*) is a toxin-producing, spore-forming bacterium that can cause infectious diarrhea. C. *difficile* infections are most common in older adults in hospitals or long-term care facilities. C. *diff* infections often occur after a patient completes antibiotic therapy for another infection. CDI is less common in children, though its prevalence is increasing. Healthy people usually don't become ill even if C. *diff* bacteria are in their intestines. However, in recent years, some hospitalized patients who are not taking antibiotics and otherwise healthy people who are not hospitalized have become ill with CDI.

Watery diarrhea (three or more times a day for two or more days), fever, and abdominal cramping are the most common symptoms of CDI. Loss of appetite and nausea can also occur. Some people recover without treatment when they stop taking the antibiotic that precipitated the CDI. With more serious infections, treatment with a specific antibiotic that targets the C. *difficile* bacterium may be necessary. The number of CDIs occurring in school-aged children is unknown because Washington state does not conduct surveillance for CDI, but it is likely rare.

Mode of Transmission

C. *difficile* is spread through the fecal-oral route, indirect contact with contaminated surfaces or items, or inhalation of airborne spores. It can spread through direct contact with feces or contaminated body parts. School staff or nurses who do not wash their hands between appointments can transfer the infection from one person to another.

Incubation Period

The incubation period is variable and individual-dependent. C. *difficile* can stay in the intestine without causing an infection until the balance of gut bacteria is disrupted, which can occur when someone takes antibiotics for a different infection.

Symptoms of CDI typically begin during antibiotic therapy or several weeks after. Occasionally, the onset is delayed for as long as 10 weeks.

Infectious Period

People can have C. *difficile* in their intestines without having an infection. They can spread the bacteria to others through their feces.

School Staff/Nurse Responsibility

1. Refer suspected cases to a licensed health care provider.
2. Report groups or clusters to your local health jurisdiction immediately.
3. Refer food handlers with diarrhea to a licensed health care provider or their local health jurisdiction so they can be cleared before returning to work.
4. The school's responsibility for all students, staff, parents, and guardians who prepare food

or handle shared food cannot be overemphasized. The importance of proper handwashing techniques must be stressed to employees, volunteers, and students.

5. Make sure diaper changing areas or other surfaces and items contaminated with diarrheal stool are cleaned and disinfected with EPA-registered detergents or disinfectants that kill C. *difficile* spores (see control of spread below).
6. Instruct students and staff on proper hand washing techniques.
7. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. Encourage good personal hygiene and proper hand washing techniques after going to the bathroom, before and after preparing food, before and after eating, after sneezing, coughing, or using tissue, before feeding a baby, before and after changing diapers, after touching dirty laundry, after touching garbage or trash, after taking off disposable gloves, and after touching animals or animal waste. This is the most important means of preventing the spread of intestinal diseases. Soap and water is the best choice for hand hygiene when someone is infected with C. *difficile* because alcohol-based hand sanitizers will not destroy C. *difficile* spores.
4. Ensure adequate handwashing facilities are available for all students and staff who handle food (including warm water, soap, and paper towels). This is required under WAC 246-366.
5. Do not allow a child or staff person who was infected with C. *difficile* to return to school until they have been diarrhea-free for at least 48 hours.
6. Carry out proper handwashing techniques, dispose of feces-contaminated materials properly, and clean and disinfect areas contaminated by feces appropriately even when no C. *difficile* is suspected because an infected individual may show no symptoms.
7. Always use gloves when changing diapers. Remove and dispose of gloves properly afterwards, and wash hands with soap and water immediately. Surfaces where diapers are changed must be cleaned and disinfected after each use. If a surface is visibly dirty, use a cleaner or detergent first, then rinse the surface, and then use the disinfectant. Make sure to use an EPA-registered detergent or disinfectant that kill C. *difficile* spores (see Safe Cleaning and Disinfecting Guidance for Schools). In general, bleach is not recommended in schools. If bleach must be used, see the *Sodium Hypochlorite (Bleach)* section in the Safe Cleaning and Disinfecting Guidance for Schools.

Additional Information

- When C. *diff* germs are outside the body, they become spores. These spores are an inactive form of the germ and have a protective coating allowing them to live for months or sometimes years on surfaces and in the soil.

Resources

- United States Environmental Protection Agency (EPA): Registered Antimicrobial Products Effective Against Clostridioides difficile (C. diff) Spores [List K] | EPA

Common Cold

Description

The common cold is an acute, self-limited viral upper-respiratory infection. Symptoms include runny or stuffy nose, sneezing, coughing, congestion, mild aches, pains, and occasionally fever. Despite popular belief, colds are caused by viruses – not by drafts or failure to dress warmly.

Mode of Transmission

The common cold is transmitted by direct contact, by respiratory droplets or aerosolized droplet nuclei from sneezing or coughing, or by sharing contaminated food or objects.

Incubation Period

For most common cold viruses, the incubation period is two to three days.

Infectious Period

The common cold is infectious a few days before the onset of symptoms until all symptoms have resolved. The common cold may occur at any time of the year, but there is typically a higher prevalence during the fall and winter months.

School Staff/Nurse Responsibility

1. It is not necessary to report cases of the common cold to your local health jurisdiction.
2. Recommend COVID-19 testing to anyone with respiratory virus symptoms (see WA DOH What To Do When You Are Sick With COVID-19 or Another Respiratory Virus).
3. Refer students to a licensed health care provider if significant symptoms persist beyond 14 days or if secondary complications develop, such as worsening sore throat, acute ear pain, sinus pain/pressure, cough with/without shortness of breath, and wheezing.
4. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. Remind students to clean or dispose of articles soiled with nose and throat discharges.
4. Remind students to cover their mouth with a tissue when coughing or sneezing. If no tissue is available, encourage students to "catch your cold in your elbow" by covering their mouth and nose with the crook of their arm and coughing or sneezing into their shirt or coat sleeve.
5. Encourage proper handwashing techniques.
6. Provide information on isolation recommendations and other precautions to students and their families per DOH guidance (What To Do When You Are Sick With COVID-19 or Another Respiratory Virus). People who have respiratory virus symptoms should isolate until both of the following have been true for at least 24 hours: their symptoms are getting better overall, and they have not had a fever of 100.4° F (38° C) or higher (without having to use fever-reducing medication).

7. When people return to normal activities for five days, they should wear a mask and take additional precautions such as taking steps to improve air flow and filtration, practicing good hand hygiene, cleaning regularly, physically distancing, and testing if accessible when they will be around others indoors.

Additional Information

- Colds generally disappear on their own within 14 days. If the student develops ear pain, a severe sore throat, difficulty breathing, or exhibits symptoms beyond 10 days, advise the parent or guardian to call their licensed health care provider.
- Colds are a viral infection and do not respond to antibiotics.
- Infants, children, and teenagers should not use aspirin unless it is prescribed by a health care provider because of its association with Reye Syndrome.

Conjunctivitis (Pink Eye)

Description

Conjunctivitis is a common infection that makes the white part of the eye appear pink or red. The infection doesn't impact vision. The eye may water profusely and feel irritated, and eyelids can swell. A discharge of liquid or mucus from the infected eye may occur. Eyelids and lashes may become crusted and stick together as the mucus hardens, particularly while sleeping. The student might complain of itching or pain.

Persons with bacterial conjunctivitis typically complain of redness and discharge in one eye, although it can be bilateral. Viral conjunctivitis usually produces clear, watery discharge in one eye, and the other usually becomes involved within 24 to 48 hours. Bacterial conjunctivitis usually produces a thicker, yellow-green discharge. Rare severe causes of conjunctivitis are herpes and gonococcus, which need additional treatment.

Conjunctivitis can also be caused by allergens, such as cosmetics or pollen; reaction to air pollutants, such as dust or smoke; and foreign bodies in the eye, such as contact lenses. Certain chronic illnesses may also cause conjunctivitis.

Mode of Transmission

Bacterial and viral conjunctivitis spread easily through contact with discharge from the eye or respiratory passages, or from touching or sharing contaminated items of the infected person, such as eye cosmetics, contact lenses, pillows, towels, and microscope eyepieces.

Incubation Period

The incubation period varies depending on the cause of conjunctivitis, but it's usually a few days.

Infectious Period

Bacterial conjunctivitis generally lasts fewer than five days. It is contagious while symptoms are present or until medication is started.

The symptoms of viral conjunctivitis are usually worse on days three through five of the infection, and they usually clear up on their own within seven to 14 days. Viral conjunctivitis is contagious while signs and symptoms are present.

Conjunctivitis caused by allergens, chemicals, foreign bodies, or chronic illnesses are not contagious.

School Staff/Nurse Responsibility

1. Notify the student's parent or guardian. The family may seek further consultation from a licensed health care provider. Health care professionals may vary in how they choose to treat this condition. The role of antibiotics in the treatment of most bacterial conjunctivitis and in prevention of spread is unclear. Antibiotics are not indicated for viral conjunctivitis.
2. Refer the student to a licensed health care provider promptly if the conjunctivitis is accompanied by moderate to severe pain in the eye, foreign body sensation, swelling or redness of the skin around the eye, or vision problems (such as light sensitivity and blurriness) that are not resolved from wiping discharge from the eye.
3. If the student wears contact lenses, refer to a licensed eye care provider to determine if the conjunctivitis may be caused from contact lenses or solution. Contact lenses can be a source of both bacterial and irritant-caused conjunctivitis.

4. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. Exclusion from school is only necessary if:
    - The child has other symptoms of systemic illness, including fever of 100.4°F (38°C) or higher,
    - The child does not feel well enough to participate in normal school activities,
    - The child cannot avoid close contact with others, or
    - The local health jurisdiction or child's health care provider recommends exclusion.
4. Frequent handwashing is the best method to control and prevent the spread of conjunctivitis.
5. Instruct students to wipe their eyes as necessary to keep them free of discharge. Use a clean tissue, cotton ball, wash cloth, or towel each time. Discard soiled tissues or cotton balls.
6. Instruct students to wash their hands after touching infected eyes and items like eyedrop dispensers or eyeglasses.
7. Remind students not to share personal items that touch the eyes, such as towels and cosmetics.
8. Advise students to throw away and replace cosmetics that were used during the infection.
9. If the student wears contact lenses, advise the student and parents to consult with a licensed eye care professional. The eye care provider might recommend the student replace the lenses, solution, and case that were used during the infection, or to discontinue use of a particular brand of contact lenses or brand of solution. The eye care professional may also advise the student to wear glasses instead of contact lenses until the infection is over.
10. Students with conjunctivitis should not use swimming pools.
11. Students with conjunctivitis should not share school or classroom equipment that touches the eyes, such as microscopes or safety goggles.
12. Report any clusters of cases to your local health jurisdiction, regardless of the suspected cause of conjunctivitis.

Additional Information

- Reinforce the practice of frequent handwashing.
- Educate students not to share personal items that touch the eyes, such as towels and cosmetics.
- Educate students with conjunctivitis not to share school equipment that touches the eyes, such as microscopes.
- Remind students that contact lenses, solution, and cosmetics can be a source of recurrent eye infections.
- Remind students to wear, handle, store, and clean their contact lenses as instructed by their licensed eye care provider.
- Remind students to discard eye cosmetics and applicators used during the conjunctivitis infection.
- Seek to identify and remove the source of possible eye allergens and irritants.

COVID-19 (Coronavirus Disease)

Description

COVID-19 is a respiratory illness caused by the SARS-CoV-2 virus. There are several variants (e.g., Delta, Omicron), which can vary in contagiousness and severity of symptoms. Possible symptoms of COVID-19 include but are not limited to fever, chills, cough, shortness of breath or difficulty breathing, fatigue, muscle or body aches, headache, new loss of taste or smell, sore throat, congestion, and runny nose. Less common symptoms include nausea, vomiting, and diarrhea. The COVID-19 clinical presentation ranges from asymptomatic to severe illness resulting in hospitalization or death. Some people who have been infected with the virus that causes COVID-19 can experience long-term effects, known as post-COVID conditions (PCC) or long COVID. Multisystem inflammatory syndrome in children (MIS-C) is a rare but serious complication associated with COVID-19. MIS-C is a dysregulated immune response to SARS-CoV-2 infection and is not transmissible. For additional information on MIS-C, see the AAP's Multisystem Inflammatory Syndrome in Children (MIS-C) Interim Guidance.

The risk of severe disease is higher for older adults, people who are unvaccinated or not up to date on COVID-19 vaccinations, and for people with certain medical conditions (for a full list see, CDC's Underlying Medical Conditions Associated with Higher Risk for Severe COVID-19: Information for Healthcare Professionals). People who are pregnant or who smoke are also at higher risk of severe COVID-19. Previous COVID-19 infections or vaccines reduce the risk of severe disease. A vaccine series and booster doses are widely available and recommended for all eligible people over 6 months old. There are prescription medications to treat COVID-19 and to prevent severe disease in people at risk.

COVID-19 testing is available through health care providers, laboratories, and home test kits.

Mode of Transmission

Spread is person-to-person, mainly through respiratory droplets or aerosol transmission. When an infected person breathes, coughs, sings, sneezes, or talks, these respiratory particles can be breathed in by other people or land on their eyes, mouth, or nose. Respiratory droplets can also contaminate surfaces, though it is uncommon for COVID-19 to be spread this way.

Incubation Period

Two to 14 days. Usually three to four days for the most recent variants.

Infectious Period

Two days before symptom onset (or positive test date if asymptomatic) to 10 days after. The infectious period can be longer in someone who is immunocompromised (e.g., 20 or more days) or has severe COVID-19 illness.

School Staff/Nurse Responsibility

1. Recommend COVID-19 testing for anyone with symptoms.
2. Provide information on isolation recommendations and other precautions to students and their families.
3. Make a referral to a licensed health care provider for severe respiratory illness. Refer people at high risk of severe illness to a licensed health care provider for even mild-

moderate respiratory symptoms to be assessed for treatment.

4. Advise parents and guardians to inform their licensed health care provider's office of the presence of a respiratory illness before they arrive so the staff can take appropriate infection prevention and control measures during the visit.
5. Notify your LHJ of outbreaks or suspected outbreaks, per WAC 246-101 (notifiable conditions).
6. Maintain and support confidentiality for students and/or staff.

Control of Spread

People who have respiratory virus symptoms or test positive for COVID-19 should isolate until both of the following have been true for at least 24 hours: their symptoms are getting better overall, and they have not had a fever (without having to use fever-reducing medication). When people return to normal activities for five days, they should wear a mask and take additional precautions such as taking steps to improve air flow and filtration, practicing good hand hygiene, cleaning regularly, physically distancing, and testing if accessible when they will be around others indoors. School nurses should follow the Interim Guidance for Managing Healthcare Personnel with SARS-CoV-2 Infection or Exposure to SARS-CoV-2.

Please refer to the Washington State Department of Health and your LHJ for current guidance, and L&I for guidance related to employees.

1. Utilize standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools). School nurses interacting with people suspected of having COVID-19 should follow transmission based precautions per Infection Control: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) | CDC.
2. Refer to district infection control program protocols and policies for infectious diseases.
3. Encourage respiratory and hand hygiene to help reduce the spread of COVID-19 in the classroom setting.
4. Up-to-date vaccination is recommended for all students and school staff.
5. People with COVID-19 can protect people at high risk of getting very sick by staying away from them for 10 days after their illness begins or until they test negative for COVID-19 with an antigen test. If someone with COVID-19 needs to be around someone at high risk of getting very sick during this time, the most protective step they can take is wearing a well-fitting mask.
6. If someone has been exposed to COVID-19, they should consider staying away from people at high risk of getting very sick for five days after being exposed, if possible. If someone who was exposed to COVID-19 must be around someone at high risk of getting very sick during those five days, they should consider wearing a mask when indoors with them and testing themselves for COVID-19 before being in contact with them.
7. In response to a COVID-19 outbreak, schools may consider additional strategies to reduce the spread, including, but not limited to:
    - Requiring exclusion of individuals with COVID-19 symptoms based on WA DOH recommendations for isolation (What To Do When You Are Sick With COVID-19 or Another Respiratory Virus)
    - Wearing well-fitting and high-quality masks or respirators
    - Improving ventilation
    - Encouraging COVID-19 testing
    - Using screening testing

Additional Information

- Ventilation is one of the most important COVID-19 prevention strategies for schools. Good ventilation can reduce the number of virus particles in the air, which reduces the likelihood of spreading COVID-19 and other respiratory illnesses. For more detailed guidance, see WA DOH's Ventilation and Air Quality for Reducing Transmission of Airborne Illnesses and the CDC's Ventilation in Buildings guidance.
- Wearing a well-fitting and high-quality mask or respirator consistently and correctly reduces the risk of spreading the virus that causes COVID-19, as well as other respiratory infections. When there is an outbreak of COVID-19 in a core group at a school, masks are recommended indoors for that group. When there are widespread outbreaks or cases at a school, masks are recommended indoors for everyone in the facility, except people under the age of 2 or who have disabilities that makes mask-wearing difficult. Masking recommendations during outbreaks extend to school buses.
- DOH, LHJs, or schools may require universal masking in classrooms, among groups of students (e.g., a choir class or a sports team), or for everyone in the facility when there are outbreaks. This helps limit the spread of COVID-19 and ensures in-person instruction and care can continue. If someone is less than 2 years of age or has a disability that prevents them from wearing a mask, use other preventive actions (such as improving ventilation) to avoid transmission during outbreaks.

Resources

- Washington State Department of Health (DOH) : What To Do When You Are Sick With COVID-19 or Another Respiratory Virus | DOH
- Washington State Labor and Industries (L&I): COVID-19 Guidance for Preventing COVID-19 | L&I
- Centers for Disease Control and Prevention (CDC)
    - Risk for severe disease: People with Certain Medical Conditions | CDC
    - Testing: COVID-19 Testing: What You Need to Know | CDC
    - Vaccines: Stay Up to Date with COVID-19 Vaccines Including Boosters | CDC

Cytomegalovirus Infection (CMV)

Description

Cytomegalovirus infection (CMV) is a member of the Herpesvirus group. CMV is a common childhood infection. It is usually asymptomatic in healthy children, and 60 to 80 percent of the United States population tests positive by adulthood. If symptoms do occur, they may mimic those of infectious mononucleosis (sore throat, fever, fatigue, and swollen glands), which is also caused by a Herpesvirus (Epstein-Barr).

The infection can be severe in immunocompromised people and newborn infants. CMV infections in pregnant people may result in increased risk of congenital CMV infections in their infants. Infants born to parents who had a CMV infection during pregnancy have a higher risk of significant illness or birth abnormalities.

CMV is spread by contact with secretions (e.g., saliva, tears) or excretions (e.g., urine) of a previously infected person. Because CMV infection is so common, and signs and symptoms of disease rarely occur in healthy adults and school-age children, testing students for CMV is not recommended. During outbreaks in schools, students, and staff with certain high-risk conditions (e.g., organ transplant recipients, immunodeficiencies, and pregnancy) should be informed of the possible risks of acquiring the infection.

Incubation Period

Three to 12 weeks.

Infectious Period

The infectious period for CMV is variable. Once CMV is in a person's body, it stays there for life and can reactivate. A person may also be infected with a different strain of the same virus.

School Staff/Nurse Responsibility

1. Teach staff who care for infants the proper way to change diapers and throw away soiled materials (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Wash hands after making any contact with respiratory secretions, urine, or feces. Properly discard any material contaminated with secretions or excretions, such as tissues or diapers.
3. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. Exclusion is not necessary unless the individual has a fever of 100.4° F (38° C) or higher (without having to use fever-reducing medication) or is not well enough to participate in normal activities.
4. Wash hands after changing a diaper and after contact with body secretions or excretions, especially urine and saliva.
5. Handle diapers carefully, and properly dispose of articles soiled with body fluids.

6. Instruct students not to share items such as lip balm, beverage containers, eating utensils, masks, cell phones, or anything that directly touches the eyes, nose, or mouth.

Resources

- Centers for Disease Control and Prevention (CDC): Cytomegalovirus (CMV) Illness & Risks | Clinical Features for Healthcare Providers | CDC

Diphtheria

Description

Childhood vaccination has almost eliminated diphtheria in the United States. There has not been a case of diphtheria in Washington state for more than 30 years.

Diphtheria is an acute toxin-mediated infection of the mouth, pharynx, nose, or skin. It is characterized by an inflamed throat, which sometimes has the appearance of a grayish membrane. Lymph nodes of the neck can enlarge later in the disease, leading to significant swelling of the neck.

Diphtheria can be a very serious disease with frequent complications, including heart muscle involvement and respiratory obstruction.

Mode of Transmission

Diphtheria is usually transmitted by airborne droplets from an infected person or asymptomatic carriers (someone with the bacteria present in the nose or throat who does not have disease symptoms). Diphtheria is also transmitted through contact with infected skin lesions, raw milk, or articles of clothing/bedding soiled with discharges from an infected person. Diphtheria is not transmitted to or from animals.

Incubation Period

One to 10 days, usually two to five days.

Infectious Period

In most untreated people, the infectious period begins at symptom onset and lasts for two weeks. Individuals who have been treated with antibiotics are generally infectious for less than four days. Individuals treated with an appropriate antimicrobial agent are usually not infectious 48 hours after starting treatment.

School Staff/Nurse Responsibility

1. It is mandatory to immediately report suspected diphtheria to your local health jurisdiction. Follow your local health jurisdiction's recommendation regarding exposed, susceptible persons.
2. Refer any suspected cases to a licensed health care provider immediately.
3. Maintain and support confidentiality for the student and/or staff.

Control of Spread

1. Screen students for any school vaccine entry requirements.
2. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
3. Refer to district infection control program protocols and policies for infectious diseases.
4. Your local health officer will advise your school on control measures. Generally, exclusion from school is mandatory until there are two negative cultures more than 24 hours apart, collected more than 24 hours after antibiotic treatment ends.
5. Close contacts of the infected person are at higher risk of infection if they aren't

adequately immunized. A health care provider might recommend additional doses of a diphtheria-containing vaccine and prophylactic antibiotics for close contacts of the case.

6. Close contacts of the infected person will be excluded from school activities until their cultures are negative and your local health jurisdiction clears them to return.

Additional Information

- Properly clean or dispose of any articles that were soiled with nose and throat discharges.
- Remind students they should never share items that can be contaminated with saliva, such as beverage containers.
- Remind students to cover their mouth with a tissue when coughing or sneezing. If no tissue is available, encourage students to "catch your cold in your elbow" by covering their mouth and nose with the crook of their arm and coughing or sneezing into their shirt or coat sleeve.
- Encourage proper hand washing techniques.

Enterovirus (Includes Enterovirus D68)

Description

Non-polio enteroviruses usually cause acute viral illnesses characterized by fever, mild upper respiratory illness (runny nose, sneezing, cough, body aches), rashes, and sometimes wheezing or difficulty breathing. In the United States, most infections occur in the summer and fall, though they can happen year-round. Non-polio enteroviruses are the most common cause of viral meningitis in the United States, but only a small percentage of people infected with enteroviruses will develop meningitis. Very rarely, non-polio enteroviruses can lead to other neurologic complications, such as encephalitis.

Enterovirus D68 (EV-D68) is one of more than 100 non-polio enteroviruses that typically cause respiratory illnesses. EV-D68 was detected in the U.S. in 2016, 2018, and to a lesser degree in 2020. It can be mild like the common cold or more severe with wheezing and difficulty breathing. It is now known that EV-D68 can also cause acute flaccid myelitis (AFM), which is an uncommon but serious neurologic condition primarily affecting children. Symptoms of AFM include arm or leg weakness; pains in the neck, back, and limbs; difficulty swallowing or slurred speech; difficulty moving the eyes or drooping eyelids; and facial droop or weakness. There is no vaccine to prevent EV-D68 infection. Treatment is supportive.

Children (of any age) are most likely to get infected with enteroviruses. People at the highest risk for severe disease include premature infants, young children with congenital (from birth) heart conditions or chronic lung disease, young children with compromised immune systems due to a medical condition or medical treatment, children with neuromuscular disorders, children with asthma, adults with compromised immune systems, and older adults, especially those with underlying heart or lung disease.

Pregnant women who get infected with a non-polio enterovirus shortly before delivery can pass the virus to their babies. There is no clear evidence that non-polio enterovirus infection during pregnancy increases the risk of severe complications like miscarriage, stillbirth, or congenital defects, according to CDC guidance.

Mode of Transmission

Enteroviruses can be found in an infected person's feces. EV-D68 and other enteroviruses that cause respiratory illness can also be found in an infected person's respiratory secretions. These viruses likely spread from person to person by close contact through respiratory droplets (e.g., from coughing, sneezing, or talking) or indirectly when someone touches recently contaminated surfaces or articles and then their eyes or nose. Enteroviruses are not transmitted to or from animals.

Incubation Period

Up to 10 days. Usually three to five days.

Infectious Period

Enteroviruses can be found in an infected person's feces, eyes, nose, and mouth secretions (such as saliva, nasal mucus, or sputum). Once infected, the virus is shed for several weeks, even after symptoms end.

School Staff/Nurse Responsibility

1. Referral to a licensed health care provider is recommended for a child with severe respiratory or any neurologic symptoms.
2. Advise a parent or guardian to inform their licensed health care provider's office staff of the presence of a respiratory illness so they can arrange appropriate medical isolation during the visit.
3. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to any district infection control program protocols and policies for infectious diseases.
3. Students with fever and respiratory symptoms should be excluded from school until after fever is gone (normally for 24 hours) and the child feels well enough to participate in normal activities.
4. Encourage respiratory hygiene (e.g., cover coughs, wash hands before eating or after touching the face, frequent cleaning of surfaces, not sharing beverage containers or utensils).

Additional Information

- Enterovirus D68 was first identified in California in 1962. After surveillance began in 1987, small numbers of EV-D68 infections were typically reported to the CDC each year. However, from August to November of 2014, EV-D68 caused a nationwide outbreak of respiratory illness in the United States. This raised awareness of EV-D68-associated illness, and surveillance for EV-D68 expanded.

Resources

- Centers for Disease Control and Prevention (CDC): About Non-Polio Enteroviruses | CDC

Fifth Disease (Erythema Infectiosum)

Description

Fifth disease, also known as erythema infectiosum, is a common mild illness with a fever and rash. It is caused by human parvovirus B19. It usually occurs in students in late winter and early spring, often as clusters or outbreaks.

The illness is characterized first by fever, coryza, headache, nausea, and diarrhea. These symptoms are usually mild and resolve after a few days (i.e., prodrome). Two to five days after symptoms begin, a bright red rash appears on the cheeks that gives them a "slapped face" appearance. This is often followed by a "lacy" rash on the chest, arms, and legs. The rash is benign, but it can fade and recur for a few days or a few weeks—especially in response to changes in environmental temperature (e.g., hot bath, exposure to sunlight). Adults might not develop the rash, but they sometimes experience joint pain—especially in hands and feet.

Although the symptoms are usually mild and often go unnoticed, the virus has been associated with miscarriages and stillbirths for infections acquired during pregnancy. The infection has also been associated with transient aplastic crisis (a temporary halt in red blood cell production by bone marrow) in some individuals with chronic blood disorders, such as sickle cell anemia. Immunosuppressed people may develop severe, chronic anemia if infected with parvovirus B19. If individuals at a higher risk for severe disease are exposed, they should be referred to their health care provider.

Mode of Transmission

Fifth disease is spread by contact with respiratory secretions. It can also be spread from a pregnant person to the fetus and through blood transfusion.

Incubation Period

Estimated to be four to 14 days from exposure to development of rash.

Infectious Period

Individuals with fifth disease are contagious from the onset of prodromal symptoms until the rash appears. At this point, they have passed peak levels of viral shedding and are no longer contagious. Immunosuppressed people with chronic infection may be infectious for months to years.

School Staff/Nurse Responsibility

1. Refer students with a rash illness, especially if fever and/or other symptoms are present, to a health care provider for diagnosis. Students should not return to school until after the fever is gone without the use of fever-reducing medication (normally for 24 hours) and they feel well enough to participate in normal activities. No treatment is indicated for this illness, and once it's diagnosed, it is not necessary to exclude the ill student from school unless a fever of 100.4°F (38°C) or higher is present or there is discomfort from symptoms.
2. During outbreaks in schools, inform students and staff with certain high-risk conditions (anemia, immunodeficiencies, and pregnancy) of the possible risks of acquiring the infection. Work with high-risk students and their licensed health care providers to develop individual health plans that include exclusion from school to avoid contact with specific infections.
3. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. Instruct students and staff to wash their hands after contact with respiratory secretions and dispose of facial tissues containing respiratory secretions.
4. Pregnant people with sick children at home are advised to wash their hands frequently and avoid sharing eating utensils.
5. Remind students to clean or dispose of articles soiled with nose and throat discharges.
6. Instruct students not to share items that may be contaminated with saliva, such as lip balm, beverage containers, eating utensils, masks, cell phones, or anything that directly touches the eyes, nose, or mouth.
7. Remind students to cover their mouth with a tissue when coughing or sneezing. If no tissue is available, encourage students to "catch your cold in your elbow" by covering their mouth and nose with the crook of their arm and coughing or sneezing into their shirt or coat sleeve.
8. Encourage proper hand washing techniques.

Additional Information

- The virus causing fifth disease is quite prevalent in the general community. Approximately 50 percent of young adults demonstrate immunity to fifth disease, indicating they were infected in childhood. A serologic test can determine if a pregnant person is immune, susceptible, or recently infected with parvovirus.
- Advise students and staff with certain conditions (anemia, immunodeficiencies, and pregnancy) who may be exposed to fifth disease about their higher risk for serious infection. Their licensed health care providers and local health jurisdictions are responsible for determining the risk and recommending any intervention.

Foodborne Disease

Description

Foodborne disease is a broad term referring to many different illnesses that are acquired by the consumption of food or beverages. Foodborne disease can be caused by bacteria, viruses, parasites, chemicals, plants, and bacterial toxins. Depending on the agent, foodborne illness manifests with any combination of the following: diarrhea (with or without blood), vomiting, nausea, abdominal cramps, fever, headache, loss of appetite, or sore throat. In rare cases, the diseases can lead to kidney failure, blood clotting disorders, neurological symptoms, blood stream infections, and death.

Selected Agents That May be Foodborne

Agent	Examples
Bacteria	*Campylobacter Salmonella, E. coli* O157:H7 *Shigella, Vibrio*
Viruses	Norovirus, Hepatitis A, Rotavirus
Parasites	*Giardia, Cryptosporidiosis, Cyclosporiasis*
Chemicals	Copper, Pesticides
Plants	Poisonous mushrooms
Bacterial toxins	*Staphylococcus aureus , Clostridium perfringens Bacillus cereus, Clostridium botulinum*

Foodborne Disease Outbreaks

A foodborne disease outbreak is an incident in which two or more individuals experience a similar illness resulting from the ingestion of a common food. Suspected foodborne disease outbreaks should be reported to the local health jurisdiction.

As few as 10 norovirus viral particles can make someone sick, making norovirus the most common cause of foodborne outbreaks in the United States. An infected food worker (who may be symptomatic, asymptomatic, or recently recovered) can contaminate food easily if they don't wash their hands adequately after using the bathroom and then touch ready-to-eat food with their bare hands.

School Staff/Nurse Responsibility

1. Immediately report suspected or confirmed foodborne outbreaks associated with a school to your local health jurisdiction (see the above table).
2. Suspect a foodborne outbreak when: 1) an unusually large number of students are sent home due to vomiting or diarrhea, 2) an unusually large number of absences due to gastroenteritis are reported, or 3) two or more students are diagnosed with the same notifiable condition in a short period of time.

3. Follow the Washington State Retail Food Code when deciding when to exclude or restrict an ill food handler or a food handler who has been diagnosed with a notifiable condition.
4. Assist local and state public health investigators as appropriate.
5. Maintain and support confidentially for the student.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. A child with diarrhea or vomiting can transmit the infection to other children in a school setting. Your local health jurisdiction may require children or employees with certain infections to stay home from school until they test negative for the infection or their symptoms resolve.
4. An infected individual may show no symptoms. Therefore, anytime someone handles materials contaminated with fecal matter, they should wash their hands with proper hand washing techniques and dispose of the feces and materials appropriately.
5. School kitchens must have a food service permit from the local health jurisdiction and adhere to requirements of the Washington State Retail Food Code (including exclusion and restriction of ill food handlers).
6. Before they prepare or serve food in a classroom, teachers and students should be taught proper safe food handling practices and sanitize surfaces where food is prepared or served, including student desks.
7. Ensure adequate hand washing facilities are available for all students and staff handling food, including warm running water, soap, and paper towels.
8. Educate students of all ages on proper hand washing techniques before eating, after using the bathroom, and after touching or handling animals.
9. Provide education on the basic principles of food safety to students as appropriate, based on their ability to understand and utilize concepts. Emphasis should be placed on hand washing, proper cooking, cooling, temperature control, and preventing contamination.
10. Do not allow raw milk or inadequately cooked meat or eggs to be served to students, including during field trips. Have students wash hands after exiting an environment with animals, particularly during field trips.
11. Surfaces where diapers are changed must be cleaned and disinfected after each use (see Safe Cleaning and Disinfecting Guidance for Schools). Whenever possible, diaper changing and food preparation for students should be conducted by different staff.

Resources

- Washington State Department of Health (DOH): Foodborne Illness | DOH
- Washington Integrated Food Safety Center of Excellence: Norovirus Outbreak Management Toolkit

Gastroenteritis (Diarrhea and/or Vomiting)

Description

Gastroenteritis refers to an infection of the gastrointestinal tract. Symptoms include diarrhea and/or vomiting, abdominal cramps, fever, muscle pain, and headache. Gastroenteritis may be caused by viruses, bacteria, or parasites. The specific symptoms, severity of disease, and transmission route varies by organism.

Depending on the organism, transmission may occur through one or more of the following routes:

- **Person-to-person:** A person gets feces on their hands from an infected person (e.g., during a diaper change) and doesn't wash their hands before eating or touching their mouth.
- **Environmental:** A surface (e.g., door knob, counter) is contaminated with the feces from an infected human, feces from an animal shedding that pathogen, or drippings from raw meat, poultry, or seafood. A person touches that surface and doesn't wash their hands before eating or putting their hands in their mouth.
- **Foodborne:** A person eats food that contains the pathogen.
- **Waterborne:** A person consumes water that is contaminated with feces from an infected human or feces from an animal shedding the pathogen.
- **Animal contact:** A person has contact with feces of an animal shedding the pathogen. Examples include petting an animal at a petting zoo and not washing their hands before eating, kissing a pet turtle, etc.

Determining the specific cause of infectious diarrhea is difficult in a school setting. Refer a student for medical care if they have bloody diarrhea, diarrhea lasting three or more days, or diarrhea or vomiting accompanied by high fever. A common source of infection could cause multiple cases in a group (e.g., classroom, school, outdoor education program) within a short period of time.

Selected Causes of Gastroenteritis

Illness (Agent)	Description	Incubation and duration	Infectious Period	Source and Transmission
Viral gastroenteritis (Norovirus) **(Sometimes incorrectly called the "stomach flu")**	Vomiting and/or diarrhea, abdominal cramps, body aches, headache, sometimes fever	Incubation: 12 to 48 (average: 33 hours) Duration: one to three days	During illness and two weeks or more after recovery	Sources: Feces and vomit of infected and recovering humans Transmission: Environmental, foodborne, and person-to-person
Campylobacteriosis* (infection with Campylobacter species)	Diarrhea (which may be bloody), fever, stomach cramps, vomiting, nausea	Incubation: one to 10 days (usually two to five days) Duration: up to one week		Sources: Raw or undercooked poultry or meat; unpasteurized dairy; feces of cattle, poultry, sick dogs and cats Transmission: Foodborne, animal contact, environmental. Person-to-person transmission is uncommon.
Giardiasis* (Giardia lamblia)	Diarrhea, abdominal cramps, bloating, weight loss, flatulence	Incubation: three to 25 days (usually seven to 10 days) Duration: Weeks	During entire infection	Source: Feces of infected humans, cattle, dogs, beavers, other animals Transmission: Animal contact, waterborne, person-to-person, foodborne

Illness (Agent)	Description	Incubation and duration	Infectious Period	Source and Transmission
Shiga toxin producing E. coli infection* (E. coli 0157:H7 and others)	Diarrhea (which may be bloody), abdominal cramps, vomiting, sometimes fever Severe, life-threatening complications are possible, especially in children 5 years and under.	Incubation: one to eight days (usually two to six days) Duration: Variable (days to weeks)	During illness and as long as shedding persists, which may be weeks to months (especially in young children)	Sources: Feces of cattle, raw or undercooked meat (especially beef), produce contaminated with animal feces, unpasteurized dairy, feces of infected human, food or water contaminated with animal feces, or feces from an infected human Transmission: Foodborne, animal contact, person-to-person, waterborne
Hepatitis A virus infection* (Hepatitis A virus)	Nausea, vomiting, diarrhea, jaundice, abdominal pain, headache, loss of appetite, jaundice (yellow skin or eyes)	Incubation: 15 to 50 days (average 30 days) Duration: Variable (usually weeks)	Fourteen days before onset of jaundice or other symptoms, until seven days after symptom/ jaundice onset	Source: Feces of incubating and infected humans Transmission: Foodborne, waterborne, person-to-person
Salmonellosis (non-typhoidal Salmonella species)*	Diarrhea (which may be bloody), vomiting abdominal cramps, nausea, fever	Incubation: six hours to five days (usually one to three days) Duration: Variable duration (usually four to seven days)	During illness and as long as organism is in stool (can be days to months)	Source: Raw or undercooked poultry, meats, and eggs; unpasteurized dairy; feces of poultry, cattle, reptiles, and other animals and pets Transmission: Foodborne, animal contact, waterborne, person-to-person
Shigellosis* (Shigella species)	Diarrhea (which may be bloody), fever, abdominal pain, fever, vomiting	Incubation: 12 hours to seven days (usually one to four days) Duration: Variable duration (can be days to weeks)	During illness and as long as organism is in stool (usually one to four weeks)	Source: Feces of an infected human Transmission: Person-to-person, foodborne (via an infected food handler), waterborne
Typhoid Fever*+ (Salmonella Typhi)	Fever, abdominal pain, nausea, vomiting, diarrhea, headache	Incubation: three to 60 days (typically eight to 14 days) Duration: three to four weeks Some individuals can become chronic carriers	During illness and as long as the organism is in stool+	Source: Feces of an infected human Most cases infected during international travel Transmission: Person-to-person, foodborne (via an infected food handler), waterborne
Clostridium Difficile* **(See section on C. difficile for more detailed information)**	Watery, diarrhea, fever, loss of appetite, nausea and abdominal pain		During illness, up to 48 hours after diarrhea clears (may be carrier)	

*Notify the local health jurisdiction of cases, outbreaks, and suspected outbreaks of notifiable conditions in Table HC-1 of WAC 246-101-101 that may be associated with the school.

+ Infected persons remain under public health supervision until they have recovered, completed antibiotics and submitted three consecutive stools negative for Salmonella typhi.

School Staff/Nurse Responsibility

1. Immediately report groups or clusters of suspected foodborne or waterborne illness associated with the school to your local health jurisdiction.
2. If parents report cases of children infected with notifiable conditions (e.g., Typhoid fever, Salmonellosis, Shigellosis, Shiga toxin-producing E. coli infection, hepatitis A virus infection, Cryptosporidiosis, or Giardiasis) that may be associated with the school, report them to your local health jurisdiction.
3. School kitchens must have a food service permit from the local health jurisdiction.
4. Refer to the Washington State Retail Food Code for work exclusion and restriction requirements for food handlers with gastroenteritis.
5. Instruct students and staff on proper handwashing techniques after using the bathroom, before eating, and after changing diapers.
6. Refer to district policies on animals in the classroom.
7. Maintain and support confidentiality for students and/or staff.
8. Animals, even when healthy appearing, can carry infectious diseases such as Salmonella, E. coli, Giardia, Cryptosporidium, and other causes of gastrointestinal illness in people. See Additional Information section below for details.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. A child with diarrhea can transmit the infection to other children in a school setting. The local health jurisdiction may require children or employees with certain infections to stay home from school until they test negative for the infection or their symptoms resolve.
4. An infected individual may show no symptoms. Therefore, anytime someone handles materials contaminated with fecal matter, they should wash their hands with proper hand washing techniques and dispose of the feces and materials appropriately.
5. Surfaces where diapers are changed must be cleaned and disinfected after each use (see the Diaper Changing section in the Safe Cleaning and Disinfecting Guidance for Schools). Be sure to leave the disinfectant on the surface long enough for disinfection to occur (see the label on disinfectants for instructions). View a list of EPA-registered products against common pathogens like Norovirus in resources below.
6. A child with diarrhea may be infected with *C. difficile, Cryptosporidium*, or norovirus, which are resistant to many cleansers. Surfaces or items that may have been in contact with any diarrheal stool must be cleaned and disinfected after each use. If a surface is visibly dirty, a cleaner or detergent must be used first. Then, the surface should be rinsed, then disinfected. Disinfect with EPA-registered detergents/disinfectants that kill *C. difficile* spores (see Safe Cleaning and Disinfecting Guidance for Schools). In general, bleach is not recommended in schools. If bleach must be used, see the *Sodium hypochlorite (Bleach)* section in the Safe Cleaning and Disinfecting Guidance for Schools.

Additional Information

Animals: Even when healthy appearing, animals can carry infectious diseases such as *Salmonella, E. coli, Giardia, Cryptosporidium*, and other causes of gastrointestinal illness in people. Animals that are ill should not be kept or displayed in classrooms. Reptiles (e.g. snakes, lizards, turtles), amphibians (e.g. frogs, toads, salamanders), poultry (e.g. chickens, ducks, turkeys), and rodents (e.g. mice, hamsters, guinea pigs) should not be kept or brought to classrooms with children under 5 years old. Children under five should not have contact with farm animals such as calves, goats, and sheep. These animals should not be displayed to older children in school settings unless meticulous attention to personal hygiene can be ensured because these animals can intermittently shed large amounts of pathogens even when they look healthy.

All children should be supervised when interacting with animals. Children should practice careful handwashing after touching or handling animals, animal feed, or animal habitats (e.g. terrarium, cage) at school or during field trips and handwashing is always recommended before eating. Designate specific areas for animal contact to occur. Do not allow food or drink in animal contact areas and do not allow animals in areas where human food and drink are stored, prepared, served, or consumed. Do not clean animal cages or enclosures, animal bowls, toys or animal enrichment objects in sinks or other areas used to store, prepare, serve, or consume food and drinks. Designate a utility or laundry sink for cleaning animal cages and other animal contact items. Assume that animal products such as owl pellets and frozen rodents used to feed reptiles are contaminated. Dissection of owl pellets should not be performed in areas where food is stored, prepared, served, or consumed. Children younger than 5 years of age should not be allowed to have direct contact with animal products unless the product has been treated to eliminate germs.

For more information about prevention of human disease from animals, turtles, or birds see the Resources section.

Resources

- Washington Administrative Codes (WACs):
  - WAC 246-100-191 Animals – General measures to prevent human disease
  - WAC 246-100-192 Animals in public settings – Measures to prevent human disease
  - WAC 246-100-201 Psittacosis – Measures to prevent human disease
- Washington State Department of Health (DOH):
  - Salmonella from Chicks and Ducklings | DOH
  - Salmonella from Reptiles and Amphibians | DOH
  - Foodborne Illness | DOH
- Washington State Department of Health (DOH) and Washington Office of Superintendent of Public Instruction (OSPI): The Health and Safety Guide Section for K-12 Schools in Washington | DOH/OSPI, see Section O: Animals in Schools and Appendix F: Animals in Schools
- National Association of State Public Health Veterinarians (NASPHV):
  - Compendium of Measures to Prevent Disease Associated with Animals in Public Settings (2023) | NASPHV; see Appendix 4: Guidelines for Exhibition of Animals in School and Childcare Settings
  - Animal Contact Compendium and Resources | NASPHV
- United States Environmental Protection Agency (EPA): Selected EPA-Registered Disinfectants | EPA

Haemophilus Influenzae (invasive disease)

Description

Haemophilus influenzae (invasive disease) describes any illnesses caused by bacteria *H. influenzae*. The most common invasive disease results in meningitis, epiglottitis, and/or pneumonia.

Meningitis is an infection of the membranes that cover the brain and spinal cord. Symptoms of meningitis include fever, headache, stiff neck, epiglottitis, vomiting, light sensitivity, and confusion. Among those who survive the disease, 15 to 30 percent have hearing impairment or permanent neurologic damage.

Epiglottitis is swelling in the throat, which can cause life-threatening airway obstruction. It is treated with antibiotics.

Other less common invasive infections can also develop. Vaccines can prevent one type of invasive *H. influenzae*, known as type b or Hib disease.

Incubation Period

Unknown.

Infectious Period

The mode of transmission is person-to-person by inhalation of respiratory tract droplets or direct contact with respiratory tract secretions.

The infectious potential of invasive Hib disease is limited. Secondary cases of Hib disease have occurred in unimmunized or incompletely immunized children who are exposed in a child care or household setting.

School Staff/Nurse Responsibility

1. Report suspected cases to your local health jurisdiction if the child is under the age of 5 years old.
2. Refer the student to a licensed health care provider if necessary (for example, if a child is very sick).
3. Educate students about good personal hygiene, especially proper hand washing techniques.
4. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. Exclude students with invasive disease from school until a licensed health care provider releases them, in consultation with your local health jurisdiction.
4. The risk of acquiring the disease in a normal classroom situation is typically low. Your local health jurisdiction will advise school staff when students and staff are at risk and what action should be taken.
5. Instruct students not to share items that may be contaminated with saliva, such as lip balm, beverage containers, eating utensils, masks, cell phones, or anything that directly

touches the eyes, nose, or mouth.

6. Clean or dispose of articles soiled with nose and throat discharges.
7. Remind students to cover their mouth with a tissue when coughing or sneezing. If no tissue is available, encourage students to "catch your cold in your elbow" by covering their mouth and nose with the crook of their arm and coughing or sneezing into their shirt or coat sleeve.
8. Encourage proper hand washing techniques.

Additional Information

- Three single-antigen (monovalent) Hib conjugate vaccine products and two combination vaccine products that contain Hib conjugate are available in the United States. Depending on the vaccine, the recommended primary series consists of either three doses administered at 2, 4, and 6 months of age or of two doses administered at 2 and 4 months of age.

Hand, Foot, and Mouth Disease (HFMD)

Description

Hand, foot, and mouth disease (HFMD) is a common viral illness for infants and children, especially in those younger than 5-7 years old. It is most common in the late summer and early fall. The disease is characterized by fever, sores in the mouth, and a rash with vesicles (blisters). Mouth and throat pain is the most common presenting symptom, with children often complaining of pain while eating and drinking.

HFMD begins with a mild fever, poor appetite, fatigue, and sore throat. One or two days after the fever begins, sores develop in the mouth. They begin as small red spots that blister and then often ulcerate. The sores are usually located on the tongue, gums, and inside of the cheeks. A skin rash develops over one to two days with flat or raised red spots, some forming fluid-filled vesicles. The rash does not itch and is usually located on the palms of the hands and soles of the feet. It may also appear on the buttocks. A person with HFMD might have only the rash or only the mouth ulcers.

Global outbreaks of HFMD occur on occasion. Beginning in 2008, large outbreaks of HFMD were reported in China, Singapore, Vietnam, Mongolia, and Indonesia due to a specific virus (HEV 71). Neurological complications and deaths have been reported from these outbreaks.

Mode of Transmission

Several related enteroviruses, such as Coxsackieviruses, especially A16, cause HMFD. They are spread by direct contact with nose and throat discharges or stool of a person who is infected. People who are infected are most contagious during the first week of the illness, but they might shed the virus for weeks (by oropharnynx) or months (by stool) after symptoms are gone.

HFMD is not transmitted to or from pets or other animals.

Incubation Period

Usually three to six days.

Infectious Period

HFMD is infectious for less than seven days. The virus might be found in respiratory secretions for several weeks and stool for several months.

School Staff/Nurse Responsibility

1. Refer students with a rash illness to a licensed health care provider for diagnosis, especially if a fever and other symptoms are present. Students should not return to school until after the fever is gone without the use of fever-reducing medication (normally for 24 hours) and the child feels well enough to participate in normal activities.
2. Immediately report suspected HFMD outbreaks associated with a school to your local health jurisdiction.
3. Maintain and support confidentiality for students and/or staff.
4. Isolation is not necessary. Only exclude students if they have a fever of 100.4°F (38°C)

or higher or are too ill to participate in school activities.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. Clean or dispose of articles soiled with nose and throat discharges, and wash hands after handling such articles.
4. Instruct students not to share items that may be contaminated with saliva, such as lip balm, beverage containers, eating utensils, masks, cell phones, or anything that directly touches the eyes, nose, or mouth.
5. Remind students to cover their mouth with a tissue when coughing or sneezing. If no tissue is available, encourage students to "catch your cold in your elbow" by covering their mouth and nose with the crook of their arm and coughing or sneezing into their sleeve.
6. Encourage proper hand washing techniques.

Hepatitis

Hepatitis is a general term that describes inflammation of the liver. Symptoms can include fatigue, loss of appetite, low-grade fever, nausea, abdominal pain, vomiting, diarrhea, and, in some cases, jaundice (new yellow color of the skin or eyes, with dark urine and pale stool).

Hepatitis has many causes, including drugs, toxins (including alcohol), and viruses. Several types of infections are labeled as viral hepatitis, each caused by a different virus. The types of viral hepatitis differ in modes of transmission and clinical courses. The signs and symptoms of these infections are the same, so laboratory testing is necessary to distinguish them. The major types of viral hepatitis are hepatitis A, hepatitis B, and hepatitis C. These viruses only affect humans. Notably, other viruses such as Epstein-Barr virus (which causes mononucleosis) sometimes cause hepatitis but are not classified as viral hepatitis.

Hepatitis A Virus (HAV) Infection

Description

The onset of hepatitis A virus (HAV) infection is usually abrupt. Symptoms are as described above, experienced at varied degrees.

Many cases have no symptoms, especially in younger children, and are only recognized by positive laboratory tests of serum for antibodies to HAV along with abnormalities in liver function tests. HAV might present as a mild to moderate illness lasting one to two weeks. Rarely, it can develop into a severely disabling disease lasting several months. There is no chronic infection with HAV.

Mode of Transmission

Transmission of HAV is usually by the fecal-oral route (human waste carried to the mouth). Most often, it occurs directly person-to-person from inadequately cleaned hands or from oral sex. It can also spread through contaminated objects, surfaces, water, or food such as contaminated shellfish or uncooked items that were touched with bare hands by an infected person. The virus can spread through fecal-oral transmission even if there is no diarrhea.

Most cases in Washington state result from exposures that occurred outside the United States.

Individuals have protection against HAV if they are vaccinated or experienced a previous infection. Vaccines or immune globulin might prevent an HAV infection in somebody who is exposed and susceptible if given within two weeks of exposure.

Incubation Period

15 to 50 days, usually 28 to 30 days.

Infectious Period

A person with an HAV infection is most likely to spread it during the two weeks before the onset of symptoms and probably for one week after. Infectiousness falls off dramatically afterwards. In cases without jaundice, the peak of infectiousness occurs during the latter half of the incubation period or when liver function abnormalities are most evident in blood tests.

School Staff/Nurse Responsibility

1. Immediately report suspected or confirmed HAV cases and outbreaks associated with a school to your local health jurisdiction.
2. Refer students or staff with jaundice or acute hepatitis symptoms to a licensed health care provider.
3. Consult with your local health jurisdiction to determine if anyone exposed to an infected person should receive an HAV vaccine or immune globulin. Under normal circumstances, casual contacts at school (teachers, classmates, etc.) are not at significant risk for contracting the disease. Friends sharing food with an infected student may be considered exposed. In the unusual circumstance of a school-centered outbreak, vaccine or immune globulin is recommended for prevention (prophylaxis) of infection in susceptible close contacts.
4. Enforce strict confidentiality of health care information for known or suspected acute infections.
5. Enforce a ban on food handling by infected staff or students until they are cleared by your local health jurisdiction.
6. Transmission at child care centers and among preschool groups with insufficient HAV vaccination rates is more common than in PK-12 schools. Child care centers should stress measures to eliminate the danger of fecal-oral transmission by enforcing proper handwashing techniques after every diaper change and before eating or preparing food for others. Immune globulin or vaccines may be necessary for susceptible staff, attendees, and family members when there is a child care outbreak.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. Exclude students or faculty with an HAV infection from school until a licensed health care provider gives them clearance to return.
4. Illness among a student's family members may be the tip-off of possible HAV transmission in a classroom, particularly transmission among younger children. Students can be infectious and spread the disease even if they do not show signs of illness.
5. HAV vaccines or immune globulin should be administered to susceptible family or other close contacts of cases as soon as possible. Prevention is effective only when it's given within two weeks of exposure. Your local health jurisdiction will advise schools on the appropriate course of action.
6. Staff are required to wear gloves during diaper changing and pay strict attention to hand washing in child care settings.
7. Encourage good hand hygiene and discourage sharing of beverage containers and food among students.

Additional Information

- A safe and effective Hepatitis A vaccine is available and routinely recommended for children beginning at 12 months of age. It is given in two doses, with the second dose given at least 6 months after the first. Hepatitis A vaccine is not required for school entry.
- HAV is generally spread by fecal-oral transmission. Teach students proper hand washing techniques before eating and after using the bathroom. Personal hygiene is important, especially careful hand washing after every diaper change and before eating or preparing food.

- Because HAV is transmitted through food and water as well as person-to-person contact, no student or adult with suspected HAV or in a family with HAV cases should be allowed to work as a food handler.

Resources

- Centers for Disease Control and Prevention (CDC): Hepatitis A | CDC

Hepatitis B Virus (HBV) Infection

Description

The onset of hepatitis B virus (HBV) infection is generally more gradual and subtle than viral HAV, but it involves the same symptoms: loss of appetite, nausea, vomiting, abdominal pain, fever, and sometimes jaundice (new yellow color of the skin or eyes, with dark urine). Severity of the disease can vary from asymptomatic cases recognized by blood tests to rapidly worsening or fatal illness. Most people recover from the infection; however, some develop chronic, lifelong infections. This occurs in less than five percent of adults but 20 to 50 percent of children between 1 and 5 years old. Chronic infections can result in liver damage and liver cancer. Since about 50 percent of infections are asymptomatic, people with acute or chronic HBV infection may not know they have HBV, but they can still infect others.

Mode of Transmission

HBV is transmitted by exposure to body fluids, including infected blood or blood products, vaginal fluids, semen, and possibly saliva. Transmission from body fluids occurs through mucous membranes or non-intact skin. HBV is transmitted mainly by contaminated syringes, needles, and other instruments (including ear piercing instruments), intravenous drug use, sexual contact, or from an infected mother to her infant. If given within 12 to 24 hours of exposure, hepatitis B immune globulin (HBIG) may prevent infection.

Incubation Period

60 to 150 days, on average 90 days.

Infectious Period

During the acute infection, blood and body fluids are most contagious before jaundice develops and weeks after. Studies show people with HBV can be infectious many weeks before the onset of any symptoms, throughout the clinical course of the illness, and, in some cases, for the rest of the person's life if the illness develops into a chronic infection.

School Staff/Nurse Responsibility

1. Screen students for any school vaccine entry requirements.
2. Immediately report any suspected or confirmed HBV cases to your local health jurisdiction. Reporting is mandatory.
3. Refer students or staff with jaundice or acute symptoms to a licensed health care provider immediately.
4. Consult with your local health jurisdiction to determine if anyone should receive hepatitis B immune globulin (HBIG). Under normal circumstances, casual contacts at school (teachers, classmates, etc.) are not at significant risk for contracting the disease. In the unusual

circumstance of a facility outbreak, HBIG is recommended for prevention (prophylaxis) for close contacts who may have been exposed.

5. Enforce strict confidentiality of health care information for known or suspected acute or chronic infections.
6. Use cleaning precautions with all body fluids as outlined in the Safe Cleaning and Disinfecting Guidance for Schools.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. Consult with your local health jurisdiction on any questions about a person with acute or chronic HBV infection attending or working in a school.
4. HBIG is not indicated for casual school contacts, although HBIG and HBV vaccines may be administered to certain contacts if blood transmission occurs.
5. Use gloves during first aid care of students or when handling bloody items and pay strict attention to hand washing. These precautions are required in child care settings.
6. If employees are exposed to blood or other potentially infectious material, employers are required to provide evaluation per the Washington Industrial Safety and Health Act (WISHA) bloodborne pathogens rule (WAC 296-823). (See WA L&I resource for Bloodborne Pathogens)

Additional Information

- A safe and effective vaccine is available and recommended for all children from birth through the age of 18 years. It is a three-dose series, with the second and third doses given one to six months after the first.
- It is required to offer the HBV vaccine to all school staff with designated job duties that could involve exposure to blood. Staff should receive the HBV vaccine if they make frequent or routine contact with blood, skin lesions, saliva, or infected secretions (such as occurs in doing first aid, health, or nursing procedures) with potentially HBV-infected individuals or high-risk groups (de-institutionalized mentally disabled persons, individuals from certain areas of Asia and Africa). Contact your local health jurisdiction and/or the Washington State Department of Labor and Industries industrial hygiene consultant to evaluate the need to immunize individual school staff members. The employer is responsible for complying with all provisions of the WISHA bloodborne pathogens rule WAC 296-823. For additional information, see resources from OSPI: *Bloodborne Pathogens Employee Training on HIV and Protection from Bloodborne Pathogens in the Workplaces* and Bulletin: Blood Borne Pathogen Training.
- In institutions for individuals with disabilities, vaccination is strongly encouraged for individuals if a classmate who is an HBV carrier behaves aggressively or has special medical problems that increase the risk of exposure to their blood or serous secretions.
    - *Mortality and Morbidity Weekly Report*, February 9, 1990, see page 15.
- Casual contacts of carriers in settings like schools and offices are at minimal risk of HBV infection, and vaccination is not routinely recommended for them.
    - *Mortality and Morbidity Weekly Report*, February 9, 1990, see page 16.
- If exposure to blood or serous secretions occurs through a needlestick, cut, wound,

contact with eyes, or mucous membranes, and the fluids are likely infectious, health care providers may recommend a treatment with HBIG and/or HBV vaccine. Immediately refer employees after an exposure incident for evaluation and treatment by a licensed health care provider. This is a requirement of the WISHA bloodborne pathogens standard.

- Instruct all staff on standard precautions and reinforce training each school year.

Hepatitis C Virus (HCV) Infection

Description

The onset of hepatitis C virus (HCV) infection is generally more gradual and subtle than viral hepatitis A (HAV). People infected with HCV may experience anorexia, nausea, vomiting, abdominal pain, and jaundice (yellow color of the skin or eyes, with dark urine). However, most people with acute HCV infection have no symptoms, so infection is frequently unrecognized.

Up to 70 percent of infections become chronic, and 15 to 30 percent of those cases develop cirrhosis if curative treatment is not provided. Chronic infection may also result in liver cancer. Approximately 2.2 million people in the United States have chronic hepatitis C, and HCV is currently the most common reason for a liver transplant. Like viral hepatitis B (HBV), people who are acutely and chronically infected may lack symptoms but can still infect others.

Mode of Transmission

HCV is transmitted primarily by exposure to infected blood and other body fluids. It was transmitted by blood products before HCV screenings became routine practice. Currently, most HCV infections are acquired through shared contaminated injection equipment. HCV can also be transmitted through sex or from mother to infant during childbirth; however, this is much less common than with HBV.

Antiviral medicines can cure more than 95 percent of people with HCV, but access to diagnosis and treatment is low.

Incubation Period

After a person is exposed to the hepatitis C virus, it can take eight to 11 weeks for an HCV antibody test to be reactive/positive. For most people who are infected, the HCV antibody blood test will become positive about 10 weeks after exposure. The test for hepatitis C virus, a special kind of blood test called a nucleic acid test (NAT) that detects HCV RNA (also called a PCR test) can tell if a person is infected within one to two weeks of exposure.

Infectious Period

Blood and other potentially infectious materials are contagious in the days to weeks before the onset of symptoms. Those with a chronic infection are indefinitely infectious.

School Staff/Nurse Responsibility

1. Immediately report suspected or confirmed HCV cases to your local health jurisdiction.
2. Refer students or staff with jaundice or acute symptoms to a licensed health care provider immediately.
3. Enforce strict confidentiality of health care information for known or suspected acute infections.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. Consult with your local health jurisdiction if there are any questions about a person with acute or chronic HCV infection attending or working in a school, while maintaining strict confidentiality laws.
4. Use gloves during first aid care or when handling bloody items and pay strict attention to hand washing. This is required in childcare settings.
5. Unlike HAV and HBV, there is no effective treatment to prevent infection after exposure. Employers are required to provide evaluation for employees exposed to blood or other potentially infectious materials under the WISHA bloodborne pathogens rule (WAC 296-823). See L&I's webpage on Bloodborne Pathogens.
6. Use cleaning precautions with all body fluids as outlined in Safe Cleaning and Disinfecting Guidance for Schools.

Additional Information

- There is currently no effective vaccine to prevent HCV. For school staff, the primary means of transmission is contamination of cuts or wounds, exposure of mucous membranes to blood, or exposure to other potentially infectious material. Employers of staff whose designated job duties may expose them to blood or other potentially infectious material must comply with provisions under the WISHA bloodborne pathogens rule (WAC 296-823).
    - See OSPI's *Bloodborne Pathogens Employee Training on HIV and Protection from Bloodborne Pathogens in the Workplace* or L&I's *Bloodborne Pathogens* webpage for additional information.
- If an employee is exposed to blood or other potentially infectious material from a person with HCV through a needlestick, a cut or wound, through the eyes, or mucous membranes, refer them for evaluation immediately. This is required by the WISHA bloodborne pathogens rule.
- The Advisory Committee on Immunization Practice recommends that anyone with HCV should be immunized with HAV and HBV vaccines.
- Instruct all staff on standard precautions and reinforce the training each school year.

Resources

- Washington State Department of Health (DOH): Hepatitis C | DOH
- Washington State Department of Labor and Industries (L&I): Bloodborne Pathogens | L&I
- Centers for Disease Control and Prevention (CDC):
    - Viral Hepatitis | CDC
    - Overview of Viral Hepatitis for Health Care Professionals | CDC
- Clinicians can call San Francisco General's 24-hour bloodborne pathogen hotline (National Clinician's Prophylaxis Hotline) at 1-888-448-4911 for the latest post exposure treatment information or visit their web site at: NCCC PEPline

Herpes Simplex Virus Type 1 (HSV-1)

Description

Herpes simplex virus (HSV) causes a chronic, sometimes recurrent, life-long viral infection. Of those infected, 75 to 80 percent have no symptoms. Symptoms occur as single or grouped vesicles (blisters), usually located around mucous membranes and on the skin. This includes oral, perioral, genital, and other regions (e.g., cold sores around the mouth, vesicles around the genital region, herpetic whitlow on the fingertips). HSV can also cause fever.

There are two types of HSV. HSV type 1 (HSV-1) is primarily associated with infections of the oral and perioral area, though it can also cause genital disease. Oral infections are extremely common in children, and by adulthood, 80 percent of Americans have antibodies to HSV-1.

HSV type 2 (labalis) is most associated with genital disease, but it can also cause oral or perioral disease. The two types have the same infectiousness or risk to others.

Complications include conjunctivitis, keratitis (inflammation of the cornea), herpes infection of existing eczema, and meningitis. Infection in newborns can be severe.

Mode of Transmission

HSV-1 and HSV-2 are both transmitted by direct contact with infected skin or secretions during periods of viral shedding, regardless of symptoms. HSV lesions are most infectious while they are in the vesicular stage. HSV-1 transmission typically occurs via oral-oral, oral-genital, or genital-genital contact, as well as contamination of skin abrasions with infected oral secretions.

Incubation Period

Two to 12 days.

Infectious Period

Sores do not need to be present to transmit herpes. Regardless of symptoms, an individual with HSV-1 can transmit the virus from the site of infection whenever they make physical contact with someone else—though the viral load is greatest when individuals are symptomatic. The virus can shed for at least one week during primary infections and less (about three to five days) during recurrences.

Infectiousness is greatly reduced after lesions have crusted and healed, although the virus can be recovered. Spread of HSV from oral lesions is difficult to prevent, as these lesions are difficult to cover with bandages.

It's not necessary to exclude students with HSV-1 and recurrent cold sores from school activities. Students diagnosed with herpes gladiatorum (a skin infection caused by HSV-1) should be excluded from any activity with skin-to-skin contact with another participant (e.g. contact sports) until lesions have scabbed over with secretions and no new lesions have occurred in the last 72 hours.

School Staff/Nurse Responsibility

Cold Sores—Skin Lesions

1. Immediately report suspected or confirmed herpes outbreaks associated with a school (e.g., among a wrestling team) to your local health jurisdiction.
2. Instruct students to cover skin lesions with a bandage or clothing when possible.
3. Avoid direct contact with infected lesions if possible. Wear gloves if direct hand contact to the lesions is necessary. Wash hands after gloves are removed.
4. Exclude students with skin lesions from contact sports, such as wrestling.
5. Conduct routine cleaning of shared sports equipment, such as wrestling mats.
6. Encourage parents and guardians to keep children younger than 3 to 4 years old at home when they have cold sores, especially during the initial episode. It is difficult to prevent young children from spreading the virus by fingers or mouth contact.
7. Registered nurses may assess skin lesions to allow student to return to school-related activities.
8. Maintain and support confidentiality for the students.

Genital Herpes (for more detailed information, see section STIs: Herpes Simplex Virus, Genital Area)

1. Report suspected initial (primary) genital infection to your local health jurisdiction.
2. It is mandatory to report suspected child abuse cases. Information on how and who to report to can be found at How to Report Child Abuse or Neglect | Washington State Department of Children, Youth, and Families.
3. Use gloves if you need to make direct contact with infectious lesions, such as during diapering (see *Diaper Changing* section in the Safe Cleaning and Disinfecting Guidance for Schools).

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies on infectious diseases.
3. Advise students to avoid spread of HSV by fingers, shared items, or kissing.
4. Reinforce proper hand washing techniques.
5. Educate students about good personal hygiene and avoiding transmission.
6. Instruct students not to share items that may be contaminated with saliva, such as lip balm, beverage containers, eating utensils, masks, cell phones, or anything that directly touches the eyes, nose, or mouth.
7. Dispose of bandages that have been in contact with the vesicles (blisters) in an appropriate bagged receptacle.
8. Disinfect surfaces that have been in direct contact with fluid from the vesicles (blisters).

Additional Information

- Provide education and counseling about the transmission of HSV, recurrence potential, available treatments, and recommended sexual practices to prevent spread.

Human Immunodeficiency Virus (HIV)

Description

Human Immunodeficiency Virus (HIV) is a virus that attacks the body's immune system. In its earliest stage it may cause an acute, brief, and nonspecific influenza-like retroviral syndrome that can include fever, malaise, lymphadenopathy, pharyngitis, arthritis, or skin rash. Most people experience at least one symptom; however, some might be asymptomatic or have no recognition of illness. If left untreated, this acute infection transitions to a chronic illness that progressively depletes CD4+ T lymphocytes that are crucial for maintaining effective immune function. Ultimately, individuals with an untreated HIV infection experience symptomatic, life-threatening immunodeficiency (i.e., acquired immunodeficiency syndrome [AIDS]).

Many people living with HIV take antiretroviral treatment (ARTs) to achieve viral suppression. As a result, people living with HIV who are fully adherent to their ART regimens can have undetectable and untransmissible HIV. Adherence to ART is therefore crucial in the prevention of illness and sexual transmission of HIV to others. Early detection is paramount in helping people who are newly diagnosed with HIV to obtain appropriate medical care and treatment.

Mode of Transmission

HIV is transmitted through vaginal or anal sexual intercourse leading to exposure to semen, vaginal secretions, or rectal secretions. It may also be transmitted through sharing needles or syringes, and, in rare cases, contact with blood or its components from people living with HIV. When people with HIV are taking medication and are virally suppressed, they cannot transmit the virus through sexual intercourse. HIV has not been shown to be transmitted through casual contact. When a student living with HIV is enrolled in school, the risk to other students is negligible.

Acute HIV Infection and Diagnostic Testing

Acute HIV infection generally refers to people who are in an early, symptomatic, and highly infectious stage of HIV. In people who have acute symptomatic infection, the usual time from HIV exposure to the development of symptoms is two to four weeks.

Diagnostics for acute HIV will typically require an HIV RNA test, as there may not be enough antigen or antibody to detect HIV using fourth-generation HIV testing technology. Routine testing for HIV otherwise consists of either antibody testing, or a combination of antibody and antigen testing. Testing is available through medical providers, nonclinical testing providers, and home testing kits.

Prevention

Antiretroviral treatment reduces the probability that people living with HIV will transmit the virus to others, especially in people who have an undetectable viral load. Thus, treatment is considered a form of prevention, both for the person living with HIV and those who could potentially be exposed to it.

Correct and consistent use of a barrier method such as condoms reduces the chance that HIV and other STIs will be transmitted, and many people choose to mix prevention methods, including condoms and pre-exposure prophylaxis (PrEP), depending on how accessible those methods are.

Individuals who are concerned about being exposed to HIV may benefit from pre-exposure

prophylaxis (PrEP). PrEP is a daily medication taken to prevent acquiring HIV. When taken correctly, PrEP reduces the risk of getting HIV from sex by at least 99 percent and injection drug use by at least 74 percent. PrEP only protects against HIV, so counsel students that it is still important to use condoms for protection against other sexually transmitted infections (STIs) and to be screened for STIs and HIV as needed. School nurse staff who learn that a person may be at higher risk of acquiring HIV may choose to suggest that they see a licensed healthcare provider to discuss accessing PrEP to prevent HIV.

School Staff/Nurse Responsibility

1. Maintain and enforce confidentiality for the student. The consent to exchange information and medical records is governed by the Family Educational Rights and Privacy Act (FERPA), the Health Insurance Portability and Accountability Act (HIPAA), Chapter 70.24 RCW, and Chapter 70.02 RCW.
2. Refer any students with acute symptoms for HIV or for any positive HIV test administered at school to a licensed health care provider.
3. Use standard precautions and follow cleaning protocols when handling any body fluids, as outlined in the Safe Cleaning and Disinfecting Guidance for Schools.
4. Refer to district infection control program protocol and policies for infectious diseases.
5. Inform parents and guardians of immune-compromised students of outbreaks of diseases potentially serious for the student, such as chickenpox, measles, COVID-19, and influenza. They should consult with their licensed health care provider, who will determine whether the individual should stay home from school.

Resources

- Washington State Department of Health (DOH): HIV Care - Client Services | DOH
- National Institutes of Health (NIH): HIV Treatment Information | Clinical Guidelines | NIH
- Centers for Disease Control and Prevention (CDC): HIV Infection: Detection, Counseling, and Referral | CDC

Impetigo

Description

Impetigo is a common superficial skin infection caused primarily by staphylococcus, specifically S aureus (most commonly non-MRSA), and to a lesser extent strains of streptococcus (primarily Beta-hemolytic). Red papules form on the skin, which evolve into blisters that break down and form "honey-crusted" lesions surrounded by redness. The lesions usually form on the face, especially around the mouth and nose. They can also form on other areas of the body, such as the torso.

Mode of Transmission

The bacteria which cause impetigo are found normally on the skin. Any injury or break in the skin can permit the bacteria to invade the skin and cause infection. Impetigo is usually acquired from direct contact with impetiginous lesions, or less likely from contact with objects or surfaces containing the bacteria. An infected person with sores on one part of the body can also spread sores to a different location of their body.

Incubation Period

Sores develop seven to 10 days after bacteria enter the skin.

Infectious Period

Lesions are considered infectious until treatment has been administered for 24 hours. Lesions are less likely to be infectious after scabs heal. If any lesions are draining, they should be covered to reduce the chance of transmission.

School Staff/Nurse Responsibility

1. Notify parents or guardians and refer them to a licensed health care provider if lesions are identified. The student does not need to be sent home prior to the end of the day if the lesions can be covered and kept dry. The disease responds very quickly to systemic antibiotic treatment and/or prescription topical antibiotic ointments.
2. Exclusion from school should be reserved for students with extensive draining lesions. It is generally not essential unless a licensed health care provider suggests it.
3. Notify your local health jurisdiction if several students develop impetigo.
4. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. Remind students and staff to wash their hands frequently to prevent the spread of disease, especially after coughing or sneezing.
4. Students should not participate in swimming, body contact sports, or food preparation activities until all lesions are healed.

5. Antibiotics will decrease the spread of the disease and decrease the incidence of complications from bacterial infection.
6. Remind students and staff to practice good personal hygiene with minor skin breaks, including washing with soap and water, to help prevent the spread of disease.
7. Discourage students from sharing towels, clothing, and other personal items.

Additional Information

1. Keep skin wounds clean and observe them for possible signs of infection.

Infectious Mononucleosis (Mono)

Description

Infectious mononucleosis, also known as mono or the "kissing disease," is an acute illness caused by the Epstein-Barr virus (herpesvirus family). Mono is characterized by fever, sore throat that may resemble strep throat (tonsillar pharyngitis), fatigue, headache, and swollen glands (especially on the neck). Some individuals develop a maculopapular rash (a rash with both flat and raised parts), often after receiving amoxicillin/ampicillin treatment—but the rash can also develop with other antibiotics or without their use at all.

Mono ranges in severity, from very mild to serious disease. It is recognized more often in adolescents and young adults than in small children. Adolescents in particular can experience swelling and tenderness of the spleen, creating a risk of splenic rupture and significant internal blood loss.

Mono is often difficult to identify and is usually diagnosed through laboratory procedures. It may be important to distinguish mono from other conditions such as strep throat.

Mono is not highly contagious and there is no specific treatment.

Mode of Transmission

Mono is transmitted through close oral contact (including sharing beverages). Although it primarily spreads via passage of saliva, it is not a particularly contagious disease.

Incubation Period

Four to eight weeks.

Infectious Period

Uncertain, but may be long (several months).

School Staff/Nurse Responsibility

1. Students with a rash illness should be referred to a licensed health care provider for diagnosis, especially if a fever or other symptoms are present. Students should not return to school until their fever is gone without the use of fever-reducing medication (normally for 24 hours) and they feel well enough to participate in normal activities.
2. Reporting cases to your local health jurisdiction is not required.
3. Make a referral to a licensed health care provider if mono is suspected. Follow medical recommendations for confirmed cases.
4. Modify the student's schedule if necessary. If periods of fatigue persist, allow students to rest.
5. Request physical activity clearance from a licensed health care provider before allowing the student to resume school-related physical activities.
6. If acute abdominal pain occurs in the first six weeks of illness after participation in a contact sport, monitor vital signs and arrange immediate evaluation by health care provider, as there is a risk of splenic rupture and significant internal blood loss.
7. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. Instruct students not to share items that may be contaminated with saliva, such as lip balm, beverage containers, eating utensils, masks, cell phones, or anything that directly touches the eyes, nose, or mouth.
4. Clean or dispose of all articles soiled with nose and throat discharges.
5. Remind students to cover their mouth with a tissue coughing or sneezing. If no tissue is available, encourage students to "catch your cold in your elbow" by covering their mouth and nose with the crook of their arm and coughing or sneezing into their sleeve.
6. Encourage students to practice proper hand washing techniques.

Additional Information

- Provide health education on the usual mode of transmission to students and their parents and guardians. Reinforce that mono is not highly contagious.

Influenza (Flu)

Description

Influenza (flu) is an acute viral infection characterized by abrupt onset of fever, headache, fatigue, chills, cough, sore throat, or aching muscles. Vomiting and diarrhea may occur, but they are not common symptoms.

Flu infections can be mild to severe, with symptoms lasting from a few days to several weeks. It spreads most commonly between December and April. Complications are more severe for people who are very young, very old, or pregnant.

Influenza is a disease of the respiratory tract. Gastrointestinal symptoms alone, which are often reported as "flu" or "stomach flu," are not influenza. Diagnosis can be confirmed by laboratory tests on respiratory secretions.

Mode of Transmission

Influenza is spread through respiratory droplets produced when a person coughs, sneezes, or talks. Influenza may also be spread by aerosols or by viruses on some surfaces.

Incubation Period

One to four days.

Infectious Period

People are generally infectious to others one day before symptoms start and up to seven days after they become sick. Some children can be infectious for longer than seven days.

School Staff/Nurse Responsibility

1. Report significant increases in school absenteeism resulting from influenza-like illness or clusters of particularly severe infections to your local health jurisdiction (WAC 246-101-525).
    - Some local health jurisdictions may request notification of student absenteeism greater than 10 percent.
2. Refer students to a licensed health care provider for exceptionally severe cases.
3. Maintain and support confidentiality for students and/or staff.

Note: children with symptoms of influenza should not receive aspirin because of its possible association with Reye syndrome.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policy for infectious diseases.
3. Annual influenza vaccinations are the most effective way to control the spread of influenza in schools.
4. Encourage respiratory and hand hygiene to help reduce the spread of influenza in the classroom setting.
5. Students with flu-like illness should be excluded from school until after the fever is gone (normally for 24 hours) and the child feels well enough to participate in normal activities.

Additional Information

- Annual seasonal influenza shots are recommended for all people, beginning at 6 months of age. Some children aged 6 months through 8 years require two doses, administered one month apart. Individuals who are at least 9 years old only need one dose of the seasonal influenza vaccine each year.
- Influenza season in the United States generally occurs between December and April. Two types of vaccines are available in the United States for children: trivalent inactivated influenza vaccine (TIV) and live attenuated influenza vaccine (LAIV). Both types control influenza effectively. The vaccine is made each year with the strains of the influenza virus expected to cause the most infection. Annual vaccinations should begin with the availability of the seasonal vaccine and continue until flu activity subsides.
- Influenza has a substantial impact among school-aged children and their contacts. These impacts include school absenteeism, medical care visits, and parental work loss. Outbreaks of influenza can cause large increases in absenteeism rather suddenly. Consult your local health jurisdiction to determine the recommendations you should make to students, parents and guardians, and school staff.
- Often, school cases will signal the onset of an epidemic in the community. School closure is not generally recommended during an outbreak unless the number of available staff becomes inadequate.
- To limit transmission of influenza in a school, students should be instructed to:
    - Avoid sharing items that can be contaminated with saliva, such as beverage containers.
    - Clean or dispose of articles soiled with nasal and throat discharges.
    - Cover their mouth with a tissue when coughing or sneezing. If no tissue is available, encourage students to "catch your cold in your elbow" by covering their mouth and nose with the crook of their arm and coughing or sneezing into their shirt or coat sleeve.
    - Use proper hand washing techniques.

Avian Flu (Bird Flu)

Avian influenza viruses naturally circulate among wild waterfowl and aquatic birds. There are many types of avian influenza viruses, and they are labelled lowly pathogenic or highly pathogenic based on their genetic characteristics and disease severity in poultry. Some of these avian influenza viruses have sporadically infected people.

Highly pathogenic avian influenza (HPAI) H5N1 has been identified in wild and domestic birds, and wild and domestic mammals (including livestock) across the United States since 2022. It is not known how long this virus will continue to circulate or if it will change to become more likely to infect people. As of June 2024, the risk to the general public is low, although transmission of H5N1 from infected birds or other animals to humans is possible. Between 2022 and June 2024, a small number of sporadic human cases have been identified worldwide, including in the United States, ranging in severity of illness.

Human infections with bird flu viruses can happen when virus gets into a person's eyes, nose or mouth, or is inhaled. This can happen when virus is in the air (in droplets or possibly dust) and a person breathes it in, or possibly when a person touches something that has virus on it and then touches their mouth, eyes or nose.

Students and staff should avoid contact with sick or dead animals, avoid raw milk or raw milk products, report any sightings of sick or dead wildlife to the Washington Department of Fish & Wildlife, and report any suspected human cases or human health concerns to their local health jurisdiction. People who become sick within 10 days of their exposure to infected or potentially infected birds or other animals should isolate at home away from their household members and should not go to work or school until they are proven not to have bird flu virus infection.

The local health jurisdiction can help schools determine when isolation is no longer required. For additional information, please see H5N1 Bird Flu: Current Situation Summary | Avian Influenza | CDC

Lice (Pediculosis)

Body Lice (*Pediculus humanus corporis / Pediculus humanus humanus*)

Description

Body lice are tiny parasitic insects about the size of a sesame seed. They are most common in crowded and unhygienic conditions. Body lice can be a particular problem among populations that have experienced disasters or difficult life circumstances, with no access to bathing facilities or the ability to change or launder clothing. Improved access to bathing and laundering facilities, and access to regular changes of clean clothing, will decrease the likelihood of body lice outbreaks.

Body lice can be found in bedding and clothing, particularly in the inner seams of clothing. Body lice travel to the skin of a human host to feed on blood. The most common sites for lice bites are around the waist, groin, and armpits—places where clothing seams are most likely to touch the skin.

Body lice are rare among children in the United States. The main signs of body lice infestation are intense itching, scratch marks, and the detection of lice eggs or moving lice. However, body lice are rarely seen on the body because they are usually sequestered in clothing. Secondary bacterial infections may develop due to skin damage from scratching.

Mode of Transmission

Body lice spread through contact with a person who has body lice or with infested personal articles, such as clothing or bedding. Dogs, cats, and other animals do not transmit lice.

Life Cycle

Body lice eggs (nits) normally hatch in one to two weeks, depending on the temperature. Mature body lice are capable of laying eggs nine to 19 days after hatching. The adult life span is about one month with access to blood.

Infestation Period

Body lice can spread as long as lice remain alive on the host or in clothing. They can move to other human hosts and infest the new host. Body lice cannot live away from a human host for more than three days at room temperature. Nits can survive for a month.

School Staff/Nurse Responsibility

1. Make a referral to a licensed health care provider for a diagnosis if body lice are observed or suspected.
2. All family members should be examined and treated simultaneously to avoid re-infestation.
3. Instruct the family to wash clothing and other personal items, such as bedding and towels, in 130°F water. Machine-dry using the hottest setting for at least 20 minutes. Temperatures of at least 130°F will kill the lice and eggs.
4. Home hot water heater temperatures can be raised to 130°F to wash clothing and bedding, then returned to lower temperatures for showering and bathing.

- Many public washing machines cannot be adjusted to 130°F, including machines in homeless shelters and laundromats. If this is the case, infested items should be sealed in a plastic bag for two weeks to kill the lice and eggs. They should be laundered afterwards to remove the dead lice and eggs.
- Items that cannot be washed or dried in at least 130°F temperatures or sealed in a plastic bag may need to be discarded.

5. Assess the family situation and, if necessary, help connect them to community resources. Support the family in accessing showering or bathing facilities and regular changes of clean clothing and bedding.
6. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to any district infection control program protocols and policy policies on infectious diseases.
3. Instruct family members to avoid having close physical contact and sharing bedding or clothing with a person who is infested, and to avoid sharing bedding or clothing with that person.
4. All family members should be examined and treated simultaneously to avoid re-infestation.
5. Exclusion from school is not recommended for body lice.

Pubic Lice (*Pthirus pubis*)

Description

Pubic lice are parasitic insects measuring less than one-eighth of an inch that feed on human blood. Because their bodies and claws resemble sea crabs, they are nicknamed "crab lice" or "crabs". The primary symptom of pubic lice is itching in the genital area. Crawling lice or nits (lice eggs) attached to the pubic hair shaft may be observed in an infestation.

An infestation of pubic lice is usually detected in the pubic hair. However, infestation can also be found in other places where there is coarse body hair, such as armpits, legs, mustaches, beards, eyebrows, or eyelashes. Pubic lice are not usually found on the scalp or in head hair.

Pubic lice do not carry infections. Secondary bacterial infections may develop due to skin damage from scratching.

Mode of Transmission

Pubic lice are most frequently transmitted by sexual contact. Pubic lice found on children may be a sign of sexual abuse or sexual exposure. However, a child may also become infested with pubic lice if he or she shares a communal bed with adults who are infested. Occasionally, pubic lice may be transmitted by contact with clothing or bedding of a person infested with lice.

A common misbelief is that pubic lice can be spread by sitting on a toilet seat. This is extremely unlikely. Pubic lice do not have feet designed to hold on to smooth surfaces like toilet seats, and they need a human blood source to survive.

Incubation Period

Pubic lice eggs (nits) normally hatch in six to eight days, depending on the temperature. Mature

pubic lice are capable of laying eggs two to three weeks after hatching. The adult life span is about one month with access to blood.

Infectious Period

Pubic lice can spread as long as lice remain alive on the host or in clothing. Pubic lice can move to other hosts and start a new infestation. They cannot live away from a human host; most die within two days.

School Staff/Nurse Responsibility

1. Make a referral to a licensed health care provider for diagnosis and treatment if pubic lice are observed or suspected.
2. Consider the possibility of child sexual abuse when pubic lice are present in a student who is not sexually active. It is mandatory to report any suspected child abuse to Child Protective Services | Washington State Department of Children, Youth and Families (DCYF).
3. Individuals with pubic lice should be examined by a licensed health care professional for other sexually transmitted infections or diseases.
4. All potentially affected persons (such as sexual partners or those sharing a bed) should be examined and treated simultaneously to avoid re-infestation.
5. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to any district infection control program protocols and policies on infectious diseases.
3. Instruct family members to avoid having close physical contact with a person who is infested, and to avoid sharing bedding or clothing with a person who is infested.
4. Exclusion from school is not recommended for pubic lice.

Head Lice (*Pediculosis humanus capitis*)

Description

Head lice are parasitic insects less than one-eighth of an inch in length that feed on blood from the scalp. Lice eggs (nits) attach to a hair shaft until they hatch.

Lice and nits are usually found on the scalp, though they can also attach to eyebrows or eyelashes. Head lice are particularly common around and behind the ears and near the neckline at the back of the head. Head lice outbreaks are common in the United States among children between the ages of three to 12 years old. Head lice are not a sign of poor hygiene or unclean homes or schools. Students of all socio-economic groups can be affected.

Signs and symptoms of head lice infestation include:

- Itching on the head and scalp
- A tickling feeling of something moving on the head or in the hair
- The detection of live lice
- Nits (lice eggs) or empty cases from hatched lice attached to hair
- Sores or scratch marks on the head caused by scratching
- Irritability and trouble sleeping because head lice are most active in the dark

Unlike body lice, head lice are not a health hazard and are not responsible for the spread of any disease. Infestation is principally a nuisance rather than a major threat to the student's well-being.

The American Academy of Pediatrics provides current clinical reports that clarify and update the protocols for diagnosis and treatment of head lice and provide guidance for the management of infested children in the school setting.

Mode of Transmission

Head lice are usually spread by direct contact with a live louse through head-to-head contact. Infestation may be through play and interaction at school or at home, such as slumber parties, sports activities, camp, and on the playground. It is uncommon for lice to be spread from inanimate objects, such as hats, combs, brushes, pillows, helmets, headphones, or movie theater seats. This is because head lice are not able to hold onto these materials or survive without the warmth and blood source of a human scalp. Head lice cannot survive away from the scalp for more than two days at room temperature. Nits are not easily transmitted because they are glued to the hair shaft.

Life Cycle

Head lice eggs (nits) normally hatch in seven to 12 days. Mature head lice can lay eggs nine to 12 days after hatching. The adult life span is about one month.

Infectious Period

Head lice can spread as long as the lice remain alive. Only live, hatched lice– not nits–spread the infestation. By removing the nits, the possibility of hatching new lice is minimized. Nits found more than one-quarter of an inch away from the scalp have already hatched or will never hatch. Nits need warmth from the scalp to remain viable.

School Staff/Nurse Responsibility

1. Reporting to your local health jurisdiction is not required.
2. **Immediate or long-term exclusion is no longer recommended.** Students with live head lice can remain in class and go home at the end of the school day, be treated, and return to school after the appropriate treatment has begun. Students can return to school with nits following treatment. Nits may persist after the initial treatment, so students with nits should be allowed back in school the next day. Successful treatment should kill crawling lice.
3. Notify a parent or guardian of the suspected case. Suggest resources for parents on how to treat head lice, such as those available through the Washington State Department of Health Lice webpage.
    - Other local health departments not listed on this site may also have materials available to share with families and staff. Check with your local health jurisdiction for recommendations.
4. Refer to a licensed health care provider for evaluation of secondary infection (such as skin infections from scratching) if suspected.
5. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to any district infection control program protocols and policies for infectious diseases.

3. All family members should be examined and treated simultaneously to avoid re-infestation.
4. Discreetly manage lice infestations so that the student is not ostracized, isolated, humiliated, or psychologically traumatized.
5. Dispel head lice myths.
6. Routine or periodic classroom and schoolwide screenings are no longer recommended.
7. Students should be discouraged from close head-to-head contact with others.
8. Follow-up with the student and family to ensure that the infestation is being addressed appropriately until the infestation has ended.
9. Have proactive policies and procedures in place for dealing with head lice in schools. Communicate the policy to parents and staff.
10. Advocate for discontinuation of "No Nit" policies. Inform school administrators of current scientific research, evidence-based practice, and recommendations from experts.

    Note: Both the American Academy of Pediatrics (AAP) and the National Association of School Nurses (NASN) advocate discontinuing "No Nit" policies, which require students to be free of lice and nits before returning to school. Such policies are not effective in controlling head lice outbreaks for the following reasons:

    - Many nits are more than one quarter of an inch from the scalp. This means they have already hatched and have left an empty casing. They will not hatch because they are too far away from the warm scalp to survive the nit stage.
    - Nits are naturally attached or "glued" to hair shafts and are unlikely to transfer to other students.
    - Unnecessary absenteeism negatively affects students, families, and schools.
    - Misdiagnosis of nits is common during nit checks conducted by non-medical personnel.

Additional Information

- Educate school personnel and the parent or guardian to recognize and manage head lice infestations. This could include periodically providing information to families of all students on the diagnosis, treatment, and prevention of head lice.
- Assure students, parents and guardians, and staff that anyone can get head lice, and it is not an indication of lack of cleanliness. The parent or guardian should be encouraged to check their student's head for lice if the student is symptomatic.
- Educate school personnel and parents about the revised guidelines regarding "No Nit" school policies.
- The use of chemical sprays or "bug bombs" to treat the environment within the school setting is not recommended due to potential toxicity, harm to humans, and lack of efficacy.
- Minimize upholstered furniture in classrooms. Launder floor pillows, mats, and other shared fabric items regularly, including drying them in a hot dryer.

Resources

- Washington State Department of Health (DOH): Head Lice | DOH
- Centers for Disease Control and Prevention (CDC): Lice Information | Site Index | CDC
- American Academy of Pediatrics (AAP): Head Lice (Clinical Report, 2022) | AAP
- National Association of School Nurses (NASN): Position Statement: Pediculosis Management in the School Settings (2020) | NASN

Measles

Description

Measles is a viral infection that was once common and is now easy to prevent with a vaccine. Measles is characterized by a maculopapular rash (a rash with both flat and raised parts). The infection typically starts with a two to four-day prodrome including fever (up to 101˚F) with a cough, conjunctivitis, runny nose, or Koplik spots (small, white spots on the inside of the cheeks). The prodrome is followed by a maculopapular rash typically starting at the hairline and extending down to cover the entire body. The rash usually lasts five to six days.

Complications are more common in children under 5 and adults over 20 years of age, including diarrhea, ear infection, pneumonia, and acute encephalitis. Rarely, the infection can occur in a person who received a vaccination for measles, but the illness in these cases may not be typical. The case fatality rate for measles in the United States is 0.1–0.3 percent, but in parts of the world with poor nutrition and limited access to health care, it can be much higher. Treatment is supportive.

Mode of Transmission

Measles is highly contagious through respiratory aerosols or the nasal and throat secretions of an infected person. Airborne transmission can occur in closed areas for up to two hours after a person with measles was present.

Incubation Period

Six to 21 days. About 13 days from exposure to upper-respiratory symptoms, and about 14 days from exposure to the beginning of the rash.

Infectious Period

Measles is infectious from one day before the beginning of the respiratory symptoms (which is usually about four days before the rash forms) to four days after the appearance of the rash.

School Staff/Nurse Responsibility

1. Screen students for any school vaccine entry requirements.
2. Any student with a rash illness should be referred to a licensed health care provider for diagnosis, especially if fever or other symptoms are present.
3. Report any confirmed or suspected cases to your local health jurisdiction by phone. This is mandatory and must be immediate.
4. Refer students or staff with symptoms to a licensed health care provider for assessment. The health care provider will need to take precautions to prevent transmission in the waiting room, so parents or guardians of the student need to inform the health care provider about the possibility of measles before the visit.
5. Be alert to any student with a high fever, cough, runny nose, red, itchy, watery eyes, and a rash. Be especially alert to symptoms in students who traveled internationally or to an area with known measles cases about two weeks after their trip. Additionally, be alert to students who made contact with someone with recent international travel or traveled to an area with measles that developed a rash illness in the past two to three weeks.

6. Ensure students comply with Washington state immunization requirements (two documented doses of the measles, mumps, and rubella [MMR] vaccine). If a case is suspected, prepare a list of students and staff who may be susceptible—those who are unimmunized, or those who have no documentation of having had the disease or having been immunized with two doses of MMR.
7. Exclude susceptible students and staff from school activities following the advice of your local health officer.
8. The measles vaccine is recommended for all adults born after 1957. Most adults born before 1957 are immune because they contracted the measles infection. However, some adults born before 1957 had neither the vaccine nor the disease and thus remain susceptible. State law does not require documentation of staff immunization. However, in the event of a single case of measles in a school, staff will need to produce proof of immunity or vaccination, and your local health officer will exclude susceptible staff.
9. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard and respiratory precautions. Measles is highly contagious through respiratory aerosols (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. If a student in your school develops confirmed measles, your local health officer may require implementation of the following control measures:
    - Exclude confirmed case from school until four full days have passed since the appearance of their rash.
    - Exclude students exempted from measles immunization or students without documentation of measles immunity for 21 days after their last exposure to the person with measles, regardless of vaccine doses or immunoglobulin received after exposure.
    - Outbreak control measures listed above also apply to all staff at the affected school.
4. Provide a second dose of measles vaccine to all students with a history of only one dose of measles vaccine. Students that do not receive a second dose of measles vaccine during an outbreak will be excluded from school.
5. Instruct students not to share items that may be contaminated with saliva, such as lip balm, beverage containers, eating utensils, masks, cell phones, or anything that directly touches the eyes, nose, or mouth.
6. Clean or dispose of articles soiled with nose and throat discharges.
7. Remind students to cover their mouth with a tissue when coughing or sneezing. If no tissue is available, encourage students to "catch your cold in your elbow" by covering their mouth and nose with the crook of their arm and coughing or sneezing into their sleeve.
8. Encourage proper hand washing techniques.

Additional Information

- Measles can be controlled and eventually eliminated if children are fully vaccinated on time.

Meningococcal Disease (Invasive)

Description

Meningococcal disease is caused by bacteria called *Neisseria meningitidis (N. meningitidis)*. Invasive meningococcal disease often manifests as meningitis, with symptoms including fever, headache, stiff neck, vomiting, light sensitivity, and confusion. The disease also manifests as a bloodstream infection (meningococcemia), which can cause abrupt onset of fever; chills; cold hands and feet; severe aches or pain in the muscles, joints, chest; vomiting; diarrhea; petechial or purpuric rash (spots of bleeding under the skin or mucous membranes that are not raised or itchy; may appear as red or purple on pale skin but may look brown on darker skin); or death. A person may have both syndromes together. Pneumonia and joint infections can also occur.

Even with appropriate antibiotic treatment and supportive care, overall case fatality rate for the invasive disease is 10 to 15 percent. Many survivors have permanent complications, such as hearing loss, loss of a limb, or permanent neurologic damage.

Mode of Transmission

Humans host and transmit the disease, even if they are asymptomatic. Transmission occurs through respiratory droplets or direct contact with respiratory secretions. Secondary cases are rarely documented, though outbreaks can occur.

Incubation Period

Two to 10 days, usually three to four days.

Infectious Period

People with meningococcal disease are infectious while meningococci are present in discharges from the nose or pharynx. People infected with *N. meningitidis* may be contagious in the week before symptom onset and up to 24 hours after effective antimicrobial therapy.

School Staff/Nurse Responsibility

1. Report suspected or confirmed cases of meningococcal disease to your local health jurisdiction. It is mandatory to do so immediately.
2. Refer suspected cases of meningococcal disease to a licensed health care provider. It is mandatory to do so immediately.
3. Work with your local health jurisdiction to gather and share the best information about meningococcal disease with school staff and the parents or guardians of exposed students.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. Exclude students from school until a licensed health care provider and local health jurisdiction approve of their return.
4. Refer close contacts of a person with meningococcal disease that may have been exposed

to the respiratory secretions to a licensed health care provider for possible antibiotic prophylaxis.

5. Classmates, teachers, or other school personnel do not usually require antibiotic prophylaxis unless they have had prolonged, close exposure with the infectious student, such as best friends sharing lunch. However, keep an eye on classroom contacts, and watch for signs of illness. Advise students to seek medical care promptly if any suspicious symptoms occur. Teachers and the parents or guardians should contact their licensed health care provider or local health jurisdiction if they have further questions about preventive measures.
6. The risk of acquiring the disease in a normal classroom situation is typically low. Your local health jurisdiction will advise school staff when students and staff are at risk and what action should be taken.
7. In rare situations, meningococcal organisms cause clusters of cases, particularly in colleges. Special vaccination programs can be carried out in such circumstances. Your local health jurisdiction will provide specific guidance in these situations.
8. Instruct students not to share items that can be contaminated with saliva, such as beverage containers.
9. Clean or dispose of articles soiled with nose and throat discharges.
10. Remind students to cover their mouth with a tissue when coughing or sneezing. If no tissue is available, encourage students to "catch your cold in your elbow" by covering their mouth and nose with the crook of their arm and coughing or sneezing into their sleeve.
11. Encourage proper hand washing techniques.

Additional Information

- Three quadrivalent meningococcal conjugate vaccines are licensed for use in the United States for serogroups A, C, W, and Y:
    - MenACWY-D (Menactra), MenACWY-CRM (Menveo), and MenACWY-TT (MenQuadfi)
- Two recombinant serogroup B meningococcal (MenB) vaccines are licensed for use in the United States:
    - MenB-FHbp (Trumenba) and MenB-4C (Bexsero)
- Routine high-risk vaccination is recommended to be started in adolescence. In certain high-risk groups, vaccination can begin in infancy. This is a shared decision between the licensed practitioner and the parent or guardian.
- Routine meningococcal vaccination is recommended for certain high-risk groups, including college freshman (particularly those living in dormitories or residence halls), people who have certain immunosuppression like asplenia, laboratory personnel, and travelers to countries with endemic meningococcal disease.
- Meningococcal vaccine is not required in Washington State, but schools in Washington State are required to provide educational material about meningococcal disease to parents and guardians (RCW 28A.210.080).

Resources

- Centers for Disease Control and Prevention (CDC): Meningococcal Disease | CDC

MERS (Middle East Respiratory Syndrome) and SARS (Severe Acute Respiratory Syndrome)

Description

MMERS and SARS are serious viral diseases caused by different coronaviruses.

MERS is a severe illness characterized by cough, fever, and difficulty breathing. MERS can lead to pneumonia or kidney failure. About a third of cases are fatal. SARS is characterized by a high fever, cough, and respiratory failure. SARS caused an outbreak in 2003-2004, with no cases reported anywhere since then.

There is no vaccine for MERS or SARS. Treatment is supportive.

Mode of Transmission

The virus lives in respiratory secretions, stool, blood, and urine. MERS and SARS are both spread person-to-person by close contact, mainly through respiratory droplets (e.g., from coughing, sneezing, or talking), or indirectly by touching recently contaminated surfaces or articles and then the eyes or nose.

Incubation Period

For MERS: Two to 14 days. Usually five to six days.

Infectious Period

People with MERS are considered infectious from the onset of fever until 10 days after the fever ends.

School Staff/Nurse Responsibility

MERS is unlikely to occur in a school setting in this country.

1. Report any suspected case to your local health jurisdiction.
2. Make a referral to a licensed health care provider for severe respiratory illness.
3. Advise a parent or guardian to inform their licensed health care provider's office staff of the presence of a respiratory illness so they can arrange appropriate medical isolation during the visit.
4. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to any district infection control program protocols and policies for infectious diseases.
3. Encourage respiratory and hand hygiene to help reduce the spread of respiratory viruses in classrooms.
4. Students with fever and respiratory symptoms should be excluded from school until the fever is gone for 24 hours without the use of fever-reducing medication and the child feels well enough to participate in normal activities.

Additional Information

- Evidence suggests MERS initially spread to people from camels, and SARS initially spread from bats.
- Only two MERS cases have been diagnosed in the United States, both connected to exposures in the Middle East. There have only been eight SARS cases reported in the United States, all associated with the 2003–2004 outbreak.

Resources

- Centers for Disease Control and Prevention (CDC): About Middle East Respiratory Syndrome (MERS) | CDC

Methicillin Resistant Staphylococcus Aureus (MRSA)

Description

Staphylococcus aureus (S. aureus) is a bacterium that is often present on the skin. Though it usually causes no harm, *S. aureus* can lead to minor skin infections like boils or impetigo. Rarely, *S. aureus* causes more serious infections of the bloodstream, urine, lungs, or other organs or tissues. An antibiotic resistant form, methicillin resistant *S. aureus* (MRSA), causes the same types of infections as antibiotic sensitive forms, but it is harder to treat.

MRSA skin infections may be abscesses, impetigo, boils, or infected open wounds, causing fever, reddening, pain, warmth, swelling, and pus. The infection might be mistaken for a spider bite. Even without a culture for MRSA, any draining skin lesion should be considered infectious. There are no specific data for Washington state about MRSA, but past studies suggest that the infection occurs at typical rates in the state compared to the rest of the United States.

Mode of Transmission

Skin bacteria such as *S. aureus* spread by direct person-to-person contact, by shared items, or through contaminated surfaces. Shared items at schools could include towels, soap, razors, clothing, and sports equipment such as helmets.

Incubation Period

Variable, since *S. aureus* can be on the skin or in the nares (nostrils) for an extended period before causing infection in a wound.

Infectious Period

People can have MRSA on the skin and not be infected but still spread the bacteria to others. Any boil, abscess, or open wound could have *S. aureus* or other bacterial infection.

School Staff/Nurse Responsibility

1. Refer suspected cases to a licensed health care provider. MRSA might be treated with local care only, or antibiotics may be appropriate.
2. If a cluster of three or more cases occurs in a single classroom or athletic team, notify your local health jurisdiction. It is not required that you report individual cases.
3. Follow standard precautions when doing wound care or touching a person's mucous membranes. Wear gloves and wash hands immediately after removing gloves.
4. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. Cover any wound that is draining or has pus with a clean, dry bandage that is closed on all four sides.
4. If a draining wound cannot be safely covered, consult with a licensed health care provider to determine when it is safe for a student to return to their normal activities.

5. Consult with the health care provider to determine when it is appropriate for a student with skin lesions to return to a contact sport. Examine the wound to ensure that it is not open and/or draining prior to their return.
6. Individuals with compromised immune systems may need to consult with their health care provider to determine whether any protective measures are needed if they are in the same classroom with a student recovering from a MRSA infection.

Return to Play

After a student is diagnosed with MRSA or another skin infection, the school nurses should collaborate with the student's physician and/or the local health jurisdiction to determine when the student can return to school sports. It is a case-by-case determination, using health information and not a pre-determined number of days.

CDC Guidance for Excluding Students with MRSA Infections from School

Unless directed by a physician, students with MRSA infections should not be excluded from attending school. For additional information, refer to CDC's guidance section on excluding students with MRSA infections from school.

All students should be instructed in the following, including students with possible or known MRSA infections:

1. Wash your hands thoroughly with soap and water only. If soap and water **are not available**, use a generous amount of alcohol-based (greater than 62 percent) hand sanitizer. Hands should be cleaned before eating, after bathroom use, and especially after changing bandages, touching nostrils, mouth, eyes, wounds, drainage, and other bodily fluids.
2. Do not share personal items such as towels or razors.
3. Keep cuts and scrapes clean and covered with a bandage until healed.
4. Avoid contact with other people's wounds or bandages.

Additional Information

The school should clean potentially contaminated surfaces with an EPA-registered disinfectant that is labeled as effective against MRSA.

Clean health clinic surfaces at least daily, including cots. Change or use disposable covers for pillows. Patient care equipment should be cleaned and disinfected between use. Schools should establish cleaning procedures with EPA-registered disinfectants for frequently touched surfaces and surfaces that come into direct contact with the skin.

Sports settings have the following special recommendations:

1. Exclude athletes with active skin and soft tissue infections from participating in wrestling or other contact sports if the wound cannot be properly covered.
2. Exclude athletes with active skin and soft tissue infections from use of water facilities like pools, whirlpools, or therapy pools unless the facilities are cleaned between users.
3. Encourage students to wear a barrier (e.g., a towel or layer of clothing) between the skin and shared equipment, as well as surfaces such as benches.
4. Establish routine cleaning and disinfecting of shared surfaces, such as benches in weight-rooms, showers, pool areas, and wrestling mats (see Safe Cleaning and Disinfecting Guidance for Schools).

5. Strongly encourage students to shower with soap immediately after participating in sports involving close personal contact (e.g., wrestling and football).
6. Strongly encourage athletes to wash athletic clothing after each use.
7. Require athletes to report skin lesions to coaches and require coaches to monitor athletes regularly for skin infections. Report findings to the school nurse.

Resources

- Washington State Department of Health (DOH): Methicillin-Resistant Staphylococcus Aureus (MRSA) | DOH
- Centers for Disease Control and Prevention (CDC):
  - General information about MRSA infections: MRSA | CDC
  - Guidance for schools – MRSA: For School & Daycare | MRSA | CDC
  - Guidance for athletics – MRSA:
    - For athletes: For Athletes | MRSA | CDC
    - Coaches and athletic directors: For Coaches and Athletic Directors | MRSA | CDC

Molluscum Contagiosum

Description

Molluscum Contagiosum is a viral skin infection of the pox family that causes raised, pearl-like papules or nodules on the skin. It is a common infection in children, often appearing on the face, neck, axillae, antecubital and popliteal fossae (in front of the elbow and behind the knee), body folds, arms, and hands.

Typically, molluscum lesions begin as small, painless papules that look pearly and dimpled, with a central core that contains a white, "cheesy" material. The papules are about two to five millimeters in diameter. There is usually no inflammation or redness unless there is trauma or a secondary infection. Scratching or other irritation may cause the virus to spread in a line or in groups, called crops. Two to 20 lesions typically appear together.

Mode of Transmission

Molluscum contagiosum is spread by direct skin-to-skin contact. The virus also spreads by sexual contact. Molluscum lesions are mildly contagious and most often spread to other areas of the infected child's body instead of spreading to other children.

The virus can spread to others through skin to skin contact with a lesion and contaminated objects, such as towels, clothing, or toys. Athletes participating in contact sports, such as wrestling, can contract it through contact with infected equipment. Early lesions on the genitalia can be mistaken for herpes or venereal warts, but unlike herpes, these lesions are painless. Having atopic dermatitis, the most common type of eczema, may also increase the risk of getting molluscum contagiosum.

Incubation Period

One week and six months, usually between two to three months.

Infectious Period

The contagious period is unknown. Individual lesions often resolve spontaneously within two months. The infection often clears completely within six to 12 months. In a minority of cases, the disease persists for three to five years.

School Staff/Nurse Responsibility

1. Refer students to a licensed health care provider if they display symptoms of molluscum contagiosum. Because the virus is self-limiting in healthy individuals, treatment may be unnecessary. Nonetheless, issues such as lesion visibility, underlying atopic disease, weakened immune system, and the desire to prevent transmission may prompt therapy. There are a variety of treatment options available.
2. If possible, keep the area with growths clean and covered with clothing or a bandage to minimize risk of direct contact.
3. Participation in sports that involve close contact, such as wrestling and basketball, or that use shared equipment, like gymnastics and baseball, should be avoided unless all lesions can be covered by clothing or bandages. Seek guidance from a licensed health care provider to determine when the student can safely return to these activities.

4. Students do not need to be excluded from swimming, as transmission occurs through direct contact. Personal items (such as towels, goggles, and swimsuits) should not be shared. Other items and equipment (such as kick boards and water toys) should be used only when all lesions are covered by clothing or watertight bandages.
    - Use precautionary measures to minimize the risk of spreading molluscum contagiosum in communal swimming pools. Routine disinfection of pools with chlorine, cleaning of pool toys, kickboards, and thorough washing of towels can help prevent transmission.
5. Follow cleaning guidance found in the Safe Cleaning and Disinfecting Guidance for Schools to minimize the risk of spreading this and other viruses. Note that careful cleaning of shared toys or sporting equipment, such as wrestling and gymnastic mats, is important.
6. Use standard precautions when there is any risk that you might have contact with lesions (see Safe Cleaning and Disinfecting Guidance for Schools).
7. Refer to district infection control program protocols and policy for infectious diseases.
8. Maintain and support confidentiality for students and/or staff.

Additional Information

- Inform students that scratching or picking the lesions can spread it to other parts of the body. In some cases, covering the lesions with a bandage may help stop scratching and spread of the virus.
- Remind students to avoid shaving any area with lesions.
- Remind students not to share towels, washcloths, clothing, and other personal items.
- Remind staff and students of the importance of frequent handwashing to reduce the spread of infections.

Mosquito-Borne Illness

Description

Mosquitoes in Washington state can be nuisance pests and also spread rare but serious diseases, including West Nile virus and St. Louis encephalitis. In Washington state, West Nile virus is the most common mosquito-borne disease.

Symptoms of West Nile virus vary. Around 80 percent of people infected with West Nile virus will not show any symptoms. About 20 percent of people who become infected develop fever with other symptoms such as headache, body aches, joint pains, nausea, vomiting, diarrhea, or rash.

About one in 150 people infected with West Nile virus will develop severe disease, with symptoms possibly including headache, high fever, neck stiffness, stupor, disorientation, tremors, convulsions, muscle weakness, paralysis, and coma. For a small number of people, the disease can be very serious and lead to permanent neurologic effects or death. Severe illness is rare in children and much more likely in those over 60 years old, and people with certain immunocompromising medical conditions such as cancer, diabetes, and kidney disease.

Mode of Transmission

West Nile virus is almost always spread by the bite of an infected mosquito. Mosquitoes become infected with the West Nile virus when they feed on infected birds—particularly American robins, house sparrows, and house finches. Infected mosquitoes can then spread West Nile virus to humans and other animals when they bite. Rare person-to-person transmission occurs through blood transfusion, organ transplant, or mother to baby during pregnancy, delivery, or breastfeeding. West Nile virus is not spread through human to human or human to animal contact or sharing items.

Incubation Period

Two to 14 days for West Nile virus infection; can be several weeks in immunocompromised individuals.

Infectious Period

Mosquito-borne illnesses are mainly spread by mosquitoes. West Nile virus is a threat to people during mosquito season, which starts in the summer and continues through the fall.

School Staff/Nurse Responsibility

1. Make a referral to a licensed health care provider for any suspected case.
2. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to any district infection control program protocols and policies for infectious diseases.

Prevent mosquito bites:

1. Use screens on windows and doors, and repair holes in screens to keep mosquitos outside.
2. Stay indoors at dawn and dusk, if possible, when mosquitoes are the most active.
3. Encourage field trip participants to wear long-sleeved shirts, long pants, and hats when going into areas with mosquitos. Prepare students and staff for field trips to such areas.
4. Encourage use of an EPA-registered insect repellent if students are spending time outside when mosquitoes are active.

Reduce mosquito habitat:

Mosquitos require water for their larvae. Identify sources of standing water such as tires, buckets, planters, toys, pools, birdbaths, animal troughs, flowerpots, trash containers, or other places where standing water may collect.

1. Empty anything outside that holds standing water.
2. If emptying is not possible, cover water sources or change water at least twice per week.
3. Recycle unused containers (e.g., bottles, cans, and buckets) that may collect water.
4. Make sure roof gutters drain properly and do not pool water.
5. Fix leaky outdoor faucets and sprinklers.
6. Drill drainage holes in tire swings so water drains out.

Additional Information

- Washington State Department of Health (DOH):
  - Mosquitoes | DOH
  - West Nile Virus | DOH
- Centers for Disease Control and Prevention (CDC): West Nile Virus | CDC

Mpox (Monkeypox)

Description

Mpox is an acute viral illness usually characterized by a rash. The mpox rash may be anywhere on the body, including hands, feet, chest, face, mouth, or the anogenital area. The rash can look like pimples or blisters and may be painful or itchy. Typically, the rash has several stages, including deep painful lesions. However, some people develop a milder rash with only a few lesions. Some people experience other symptoms before or along with the rash, including fever, chills, swollen lymph nodes, exhaustion, backache, muscle aches, headache, and respiratory symptoms (e.g., sore throat, nasal congestion, or cough).

Mpox can be more severe in those who are pregnant, breast feeding, immunocompromised (including HIV infected), or experiencing another skin disease.

Mode of Transmission

Transmission of mpox occurs person-to-person by skin-to-skin contact or through droplets from lesions in the mouth. Transmission can also occur indirectly through articles, such as clothes used by someone with mpox. Transmission via respiratory route (i.e., without skin-to-skin contact) usually requires prolonged exposure. People can get mpox from animals, and people can transmit mpox to animals as well.

Incubation Period

Three to 21 days. Usually seven to 14 days.

Infectious Period

A person with mpox can spread it to others from the time symptoms start until the rash has fully healed, all scabs are shed, and a fresh layer of skin has formed. This can take several weeks.

School Staff/Nurse Responsibility

1. Report any suspected case to your local health jurisdiction.
2. Make a referral to a licensed health care provider for a new rash illness.
3. If mpox is confirmed in a student who attended school, consult with your local health jurisdiction about next steps.
4. Maintain and support confidentiality for students and/or staff.

Control of Spread

Attention to routine hygiene efforts, as described in the steps below, can help reduce the risk of mpox and other infectious diseases in schools.

1. Exclude students with mpox from school until all lesions are healed, scabs have fallen off, and fresh skin has formed; this can take up to 4 weeks. If a student develops symptoms while at school, they should be separated from other students, wear a well-fitting mask (unless they are under 2 years old or have a disability that prevents them from masking), and be sent home from school. For additional information, see What is Monkeypox (Mpox)? | HealthyChildren.org

2. Students and staff who are exposed to mpox generally do not need to be excluded from school. Your local health jurisdiction may recommend limiting participation in normal activities if contact tracing is not possible or there was a high degree of exposure leading to an increased risk of infection. For additional information, see What is Monkeypox (Mpox)? | HealthyChildren.org
3. Encourage students and staff to stay home when they're sick.
4. Provide access to handwashing supplies and encourage good hand hygiene.
5. Maintain good cleaning and disinfecting routines, including sports equipment and uniforms.
6. Use standard precautions for handling bodily fluids and items contaminated with bodily fluids (see Safe Cleaning and Disinfecting Guidance for Schools).

Additional Information

- An mpox outbreak began in May 2022 that primarily affected Europe and the Americas. At the peak, over 600 cases were reported in one day in the United States. By December 2022, fewer than 10 cases were reported each day. The U.S. has seen 30,000 cases as of December 2022, and only 62 were in people under 16 years of age.
- A vaccine to prevent mpox is available for those at high risk of exposure or those who likely had an exposure. Antiviral medication can be given to people with severe mpox or to people with mpox who are at higher risk for severe disease.

Resources

- Washington State Department of Health (DOH): Mpox | DOH
- Centers for Disease Control and Prevention (CDC): Mpox | Poxvirus | CDC

Mumps

Description

Mumps is a viral illness characterized by painful inflammation of the glands that lie just above the back angle of the jaw. Involvement can be one-sided or bilateral. Other glands, including those in the floor of the mouth beneath the tongue and below the jaw, may also be involved, although it is less common. Other glandular tissue involvement that can occur includes inflammation of testes (orchitis) or ovaries (oophoritis). Viruses other than mumps and some bacteria are also known to cause swelling of the parotid glands.

Mumps begins with a few days of fever, headache, myalgia, fatigue, and anorexia, usually followed by parotitis (inflammation of the salivary glands) within 48 hours. Asymptomatic infections occur in 15 to 20 percent of cases. Other complications may include meningitis, encephalitis (swelling of the brain), deafness, pancreatitis, and myocarditis. Treatment is supportive.

Mode of Transmission

Mumps is highly contagious. Transmission is by direct contact with, or droplet spread of, the saliva of infected persons.

Incubation Period

12 to 25 days, usually 16 to 18 days.

Infectious Period

Individuals with mumps are most contagious from the immediate period before the onset of illness until five days after swelling first appears.

School Staff/Nurse Responsibility

1. Reporting mumps cases to your local health jurisdiction is mandatory.
2. Refer suspected mumps cases to a licensed health care provider.
3. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Screen students for any school vaccine entry requirements.
2. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
3. Refer to district infection control program protocols and policies for infectious diseases.
4. Students with a confirmed case should be isolated until the swelling and other manifestations of the illness have subsided, or at least four days after the onset of swelling.
5. Post-exposure vaccination of individuals is not clearly protective against the disease and its complications. However, use of vaccines is recommended because it will protect against any subsequent exposure.
6. Instruct students not to share items that may be contaminated with saliva, such as lip balm, beverage containers, eating utensils, masks, or cell phones.
7. Clean or dispose of articles soiled with nose and throat discharges.

8. Remind students to cover their mouth with a tissue when coughing or sneezing. If no tissue is available, encourage students to "catch your cold in your elbow" by covering their mouth and nose with the crook of their arm and coughing or sneezing into their sleeve.
9. Encourage proper hand washing techniques.

Additional Information

- A live, attenuated virus vaccine is available in combination with the measles and rubella vaccine (MMR) at the age of 12 months. Vaccination is required for child care and school entry in Washington state. Encourage parents and guardians to vaccinate their children on time.

Norovirus

Description

Norovirus causes an illness characterized by vomiting and/or diarrhea (non-bloody) and can include nausea, abdominal cramps, low-grade fever, chills, headache, muscle aches, and lethargy. Symptoms usually resolve without treatment in one to three days.

Norovirus infections can be acquired at any time of year, with a peak in incidence during the winter months. There are many different strains of the virus and no persisting immunity after infection, so people can and do develop repeated infections.

Mode of Transmission

A person with norovirus sheds billions of norovirus particles during their infection, in both stool and vomit. As few as 10 viral particles can cause infection. Therefore, norovirus is readily spread via the following routes (see section on Gastroenteritis for definitions of transmission routes):

- Person-to-person
- Foodborne (via an ill food worker)
- Environmental
- Waterborne

Incubation Period

12 to 48 hours.

Infectious Period

During illness and two weeks or more after recovery.

School Staff/Nurse Responsibility

1. Immediately report suspected or confirmed foodborne outbreaks associated with a school to your local health jurisdiction.
2. Follow the Washington State Retail Food Code when deciding when to exclude or restrict an ill food handler with suspected or confirmed norovirus.
3. Staff and students should remain home through their illness and for 24 hours after symptoms resolve. In the event of a large school-wide occurrence of gastrointestinal disease, local health jurisdictions may advise students or staff to stay away longer than 24 hours. Consult with your local health jurisdiction on environmental cleaning and possible closure of food service or the school to stop the cycle of infection.
4. Anyone cleaning vomit or feces should wear a mask.
5. Remove any contaminated clothing or linens immediately. Clean any contaminated surfaces thoroughly with a detergent to remove organic material (such as feces). Rinse the detergent off the surface and disinfect with an EPA-approved disinfectant for norovirus. Antibacterials such as triclosan and general use disinfectants such as quaternary ammonium compounds are not generally effective against norovirus and related viruses. Bleach solutions for disinfecting must be prepared fresh daily (see Safe Cleaning and Disinfecting Guidance for Schools).
6. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. Encourage good personal hygiene and proper hand washing techniques after going to the bathroom, before eating, and after changing diapers.
4. An infected individual may show no symptoms. Therefore, anytime someone handles materials contaminated with fecal matter, they should wash their hands with proper hand washing techniques and dispose of the feces and materials appropriately.
5. Surfaces where diapers are changed must be cleaned and disinfected after each use (see Safe Cleaning and Disinfecting Guidance for Schools).

Resources

- Washington Integrated Food Safety Center of Excellence: Norovirus Outbreak Management Toolkit
- United States Environmental Protection Agency (EPA): Registered Antimicrobial Products Effective Against Norovirus | EPA

Pertussis (Whooping Cough)

Description

Pertussis, also known as whooping cough, is a highly contagious bacterial infection of the nose and throat. Pertussis begins with mild upper-respiratory symptoms like the common cold (called the catarrhal phase). As the disease progresses, the cough increases in severity, usually with paroxysms of cough (paroxysmal stage) characterized by an inspiratory "whoop" (gasping) at the end of the paroxysms that might be followed by vomiting. Some may experience cyanosis (bluish skin color due to decreased amounts of oxygen). Symptoms gradually improve over weeks to months (called the convalescent stage).

Pertussis is most severe when it occurs during the first 6 months of life, particularly in preterm and unimmunized infants. Disease in infants younger than 6 months can be atypical with a short catarrhal stage, followed by gagging, gasping, bradycardia, or apnea as prominent early manifestations; absence of whoop; and prolonged convalescence. Pertussis can cause sudden unexpected death. Cough illness in immunized children and adults can range from typical to mild, with a classic duration of six to ten weeks.

Complications in adolescents and adults include syncope, sleep disturbance, incontinence, rib fractures, and pneumonia. Pertussis is most severe, with the highest risk for complications and death, in unvaccinated or under vaccinated children under 12 months of age.

Mode of Transmission

Transmission of pertussis usually occurs through droplets or direct contact with the respiratory secretions of an infected person.

Incubation Period

Six to 21 days, on average seven to ten days.

Infectious Period

Pertussis is most infectious during the early catarrhal stage. Individuals with pertussis are considered infectious until they complete five days of appropriate antibiotic treatment.

School Staff/Nurse Responsibility

1. Report pertussis cases to your local health jurisdiction. Doing so immediately is mandatory.
2. Refer students with suspected cases of pertussis to a licensed health care provider for diagnosis and treatment.
3. Maintain and support confidentiality for students and/or staff.
4. If pertussis has been confirmed and the student is not treated with antibiotics, they should be excluded from school until four weeks after the onset of the illness or until the cough has stopped. If treated, the student may return after five days of treatment have been completed.

Control of Spread

1. Screen students for any school vaccine entry requirements.
2. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
3. Refer to district infection control program protocols and policies for infectious diseases.
4. Exclude infected students according to your local health officer recommendation. (Generally, you will be advised to exclude them until the fifth day of antibiotic therapy or, if not treated, until they are no longer coughing, or until four weeks after cough onset—whichever period is shorter.)
5. Recommend vaccination for all unimmunized or incompletely immunized students, including a first vaccination for students younger than 7 years old and a booster at age 11 years or older.
6. Your local health officer will make recommendations regarding treatment of school and household contacts.
7. All immunized close contacts can continue to attend school if they begin prophylactic antibiotics. At the direction of your local health jurisdiction, unimmunized close contacts may be excluded from school until an incubation period has passed. In most instances, all exposed close contacts—regardless of immunization status—are evaluated for symptoms and excluded if symptoms develop in the 21 days after exposure. Exposed close contacts who develop symptoms should be referred to a licensed health care provider for evaluation and treatment.
8. Instruct students not to share items that may be contaminated with saliva, such as lip balm, beverage containers, eating utensils, masks, cell phones, or anything that directly touches the eyes, nose, or mouth.
9. Clean or dispose of articles soiled with nose and throat discharges.
10. Remind students to cover their mouth with a tissue when coughing or sneezing. If no tissue is available, encourage students to "catch your cold in your elbow" by covering their mouth and nose with the crook of their arm and coughing or sneezing into their sleeve.
11. Encourage proper hand washing techniques.

Additional Information

- The pertussis vaccine, given along with diphtheria and tetanus toxoid (Tdap and DTaP) in the recommended schedule, is an effective means of prevention.

Pinworms

Description

A pinworm is a small, thin, whitish intestinal roundworm. Pinworm infections are the most common worm infection in the United States. Although some infected individuals have no symptoms, pinworm infestation can include severe anal itching with disturbed sleep, restlessness, and local irritation from scratching. In rare instances, Vaginitis, nausea, vomiting, and abdominal pain are attributed to pinworms.

People from all socio-economic and ethnic backgrounds can have pinworms.

A diagnosis is made when adult worms or eggs are found in the anal region. Stool examination is not useful, because worms and eggs are generally not passed in stool.

Mode of Transmission

Transmission of pinworms occurs through infective eggs that are carried from anus to mouth by hands, from articles of bedding or clothing to mouth, or carried in food or dust.

Children who have scratched the anal area can have eggs under their fingernails and transmit to others through shared food.

Incubation Period

The life cycle from egg to adult is two to three months.

Infectious Period

Pinworm eggs are infectious within a few hours after they are deposited on the skin. The person is infectious as long as female worms are depositing eggs on skin around the anus. The eggs can survive up to three weeks on clothing, bedding, or other objects.

The response to specific antihelminth drugs (drugs that kill parasitic worms) is excellent, but re-infestation occurs easily.

School Staff/Nurse Responsibility

1. Reporting to your local health jurisdiction is not necessary.
2. Make a referral to a licensed health care provider for appropriate diagnosis and treatment of suspected cases.
3. Educate the student and family about the modes of transmission (infectious eggs carried from anus to mouth by hands, from articles of bedding or clothing, or by food and dust). Teach careful hand washing, including careful cleaning of fingernails after using the bathroom and before eating.
4. Encourage good personal hygiene and proper hand washing techniques after going to the bathroom, before eating, and after changing diapers.
5. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to any district infection control program protocols and policies for infectious diseases.
3. If the condition is recurrent, all members of the household should be treated simultaneously. Risks and benefits of prescribing antihelminth drugs for children younger than two years old should be reviewed with a medical care provider, due to limited experience in using these drugs with young children.
4. Surfaces where diapers are changed must be disinfected after each use (see Diaper Changing section in the Safe Cleaning and Disinfecting Guidance for Schools).
5. Encourage proper hand washing techniques.
6. Students should not be excluded from school for pinworms.

Poliomyelitis (Polio)

Description

Poliomyelitis (polio) is an acute infectious disease in which neurons in the spine and brain are damaged by the poliovirus. Approximately 70 percent of all polio cases in children are asymptomatic, though infected individuals can transmit the virus to others. Approximately 24 percent of all polio infections in children are minor, characterized by a low fever and sore throat, with complete recovery in less than a week. Less than one percent of all polio infections in children result in flaccid paralysis. Classic paralytic polio begins with a minor illness, fever, sore throat, nausea, constipation and/or malaise. After a few days without symptoms, rapid onset of paralysis follows.

Although wild polio transmission has ceased in most countries because of vaccination programs, it remains endemic in a few areas of the world. Importation remains a threat. A single case of polio is a public health emergency.

Mode of Transmission

Polio is transmitted by fecal-hand-oral contamination. During epidemics, it may also be spread by pharyngeal (throat) droplets.

Incubation Period

Four to 10 days. Three to six days for nonparalytic polio and seven to 21 days for onset of paralysis in paralytic polio.

Infectious Period

The infectious period is not clearly defined, but transmission can occur as long as the virus is shed in the stool. Polio is most infectious in the few days before and after the onset of clinical symptoms. There is no specific medical treatment for polio.

School Staff/Nurse Responsibility

1. Report confirmed or suspected cases of polio to your local health jurisdiction. Doing so immediately is mandatory.
2. Follow your local health officer's guidance on excluding students with confirmed cases from school.
3. Check the susceptibility of a person with polio's contacts and recommend immunization of contacts as appropriate.
4. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Screen students for any school vaccine entry requirements.
2. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
3. Refer to district infection control program protocol and policies for infectious diseases.

Additional Information

- The polio vaccine is required for school and childcare entry. Administration of the oral (live virus) polio vaccine was discontinued in the United States in 2000. Only the inactivated injectable vaccine is used now.
- Internationally, polio control is achieved by immunization of any individual in an epidemic area who is over the age of 6 weeks who was previously unvaccinated, incompletely vaccinated, or uncertain of vaccination history.

Ringworm (Tinea)

Description

Ringworm is a very common infection caused by several types of fungi. It is not caused by a worm. When found on the body, it is called tinea corporis; when on the scalp, tinea capitis; when in the groin, tinea cruris; and when on the feet, tinea pedis (see Athlete's Foot section).

Ringworm begins as a small, itchy, scaling red patch or plaque that spreads outward. Each affected area takes on the appearance of a red, scaly, outer ring with a clear central area. Hair may become brittle and break off in gradually spreading areas. Itching sometimes accompanies the infection.

Mode of Transmission

Transmission of ringworm is generally by person-to-person or contaminated article-to-person contact. It can cause outbreaks in athletes (tinea corporis gladiatorum). Infected animals can also be a source for scalp and body infections.

Incubation Period

Usually seven to 21 days.

Infectious Period

Ringworm is infectious during the duration of skin or scalp lesions and while the fungus persists.

School Staff/Nurse Responsibility

1. A report to your local health jurisdiction is not necessary.
2. Refer students to a licensed health care provider for appropriate diagnosis and treatment of suspected cases.
3. Maintain and support confidentiality for students and/or staff.
4. Work with your athletic director if an outbreak occurs among athletes.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. Encourage frequent hand washing.
4. Students with ringworm may stay in school after treatment has been started.
5. Encourage students to keep the affected area covered to minimize transmission.
6. Instruct students not to share combs, hats, towels, or other personal articles.
7. Disinfect showers, dressing rooms, and gymnasiums (floors, mats, and sports equipment). Follow cleaning and disinfecting guidelines in Safe Cleaning and Disinfecting Guidance for Schools.
8. Encourage proper laundering of towels and clothing (see Safe Cleaning and Disinfecting Guidance for Schools).
9. Athletes must be treated for 72 hours before they return to practice or participation. They must keep lesions covered.
10. Students should not be excluded from school for ringworm.

Additional Information

- Ringworm of the body is not particularly dangerous. It has no unusual long-term consequences and can generally be treated quite effectively with locally applied preparations. A prescribed oral medication may be needed for severe or persistent cases of body ringworm and is necessary to treat all ringworm of the scalp.
- Instruct students about the causes, means of transmission, and prevention of this condition.

RSV (Respiratory Syncytial Virus)

Description

RSV is an acute viral illness that can cause a variety of symptoms that usually appear in stages, rather than all at once. Early symptoms of RSV may include runny nose, decrease in appetite, and a cough that can progress to wheezing or difficulty with breathing. RSV can also cause lung problems like bronchiolitis and pneumonia.

Almost all children will have had an RSV infection by their second birthday. Severe RSV disease requiring hospitalization most commonly occurs in:

- Very young infants (i.e., six months and younger)
- Premature infants
- Children younger than two years old with chronic lung disease or congenital heart disease
- Children of any age who have neuromuscular disorders (including those who have difficulty swallowing or clearing mucus secretions)
- People of any age with chronic lung or heart diseases (such as asthma) or compromised immune systems
- Older adults (especially those 65 years and older)

Although no vaccine to prevent RSV in school-age children is yet available, adults 60 years of age and older now have the option to receive a single dose of RSV vaccine. There are two options for protection of infants against RSV: maternal vaccine for the pregnant person or preventative antibodies given to the baby. Only one of these options is needed for most babies to be protected during the RSV season which is from October through March in most parts of the U.S., including Washington.

Mode of Transmission

RSV spreads person-to-person by close contact, mainly through respiratory droplets when an infected person coughs or sneezes and another person gets virus droplets from the cough or sneeze in the nose, mouth, or eyes. It can spread directly when someone has direct contact with the virus (e.g., by kissing the face of a child with RSV). It can also spread indirectly by touching recently contaminated surfaces (particularly hard surfaces such as tables or crib rails where the virus can survive for many hours) and then touching the eyes or nose. It is not transmitted to or from animals.

Incubation Period

Two to eight days. Usually four to six days.

Infectious Period

Persons with RSV are usually contagious for three to eight days and may become contagious one to two days before symptom onset. Some infants and people with weakened immune systems can continue to spread the virus even after they stop showing symptoms, for as long as four weeks.

School Staff/Nurse Responsibility

1. A referral to a licensed health care provider is recommended. Advise a parent or guardian to inform their provider's office staff of the presence of a respiratory illness so they can arrange appropriate medical isolation during the visit.
2. Inform students and staff with certain high-risk conditions (e.g., anemia, immunodeficiencies, and pregnancy) when there is an increased risk of acquiring the infection in the school environment. Refer them to their licensed health care provider for guidance. Individual health plans for high-risk students may need to include planning for exclusion, in consultation with the student's licensed health care provider, to avoid contact with specific infections in the school environment.
3. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to any district infection control program protocols and policies for infectious diseases.
3. Encourage respiratory and hand hygiene to help reduce the spread of respiratory viruses, including RSV, in the classroom setting.
4. Students with fever and respiratory symptoms should be excluded from school until after the fever is gone (normally for 24 hours and without the use of fever-reducing medication) and the child feels well enough to participate in normal activities.

Resources

- Centers for Disease Control and Prevention (CDC): Respiratory Syncytial Virus (RSV) | CDC

Rubella (Three-Day Measles)

Description

Rubella is a relatively mild viral illness. However, it causes significant congenital defects in infants whose mothers contracted rubella during the first 12 weeks of their pregnancy, making it a concerning illness.

The first signs of rubella in children may be swollen, tender glands (usually at the back of the neck and behind the ears) and a low-grade fever, either followed by a rash one to two days later or concurrently with other symptoms. The rash usually consists of pink to red isolated spots that appear first on the face and then spread rapidly to the torso, biceps, and thigh areas of the extremities with large confluent areas of flushing. The rash usually fades within three days. Fever is often mild or absent.

Rubella in adolescents and adults may cause painful or swollen joints, especially in girls and women. Because many other rash illnesses look like rubella, laboratory tests are required to confirm the diagnosis. Up to 50 percent of rubella cases are asymptomatic.

Mode of Transmission

Transmission occurs from nasopharyngeal secretions of infected persons. It is also transmitted during pregnancy, across the placenta to the fetus. Infants with congenital rubella can shed large quantities of the virus from their respiratory secretions and in urine.

Incubation Period

12 to 23 days, usually 18 days.

Infectious Period

Rubella is infectious for about one week before the appearance of the rash and at least seven days after.

School Staff/Nurse Responsibility

1. Report any suspected cases of rubella to your local health jurisdiction. Doing so immediately is mandatory.
2. Refer students with suspected cases of rubella to a licensed health care provider for laboratory tests for diagnosis and treatment.
3. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Screen students for any school vaccine entry requirements.
2. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
3. Refer to district infection control program protocols and policies for infectious diseases.
4. Students may return to school on the seventh day after the rash appeared.
5. Pregnant contacts of the student should be notified of their exposure and advised to contact their licensed health care provider immediately to discuss the status of their rubella immunity.
6. Instruct students not to share items that may be contaminated with saliva, such as lip balm, beverage containers, eating utensils, masks, cell phones, or anything that directly touches the eyes, nose, or mouth.

Additional Information

- A blood test is available to help people identify whether they have immunity to rubella. Because of the theoretical risk to the fetus, anyone capable of pregnancy should receive the vaccine if they confirm they are not pregnant and are counseled not to become pregnant for one month after vaccination.

Scabies

Description

Scabies is a severe, itchy skin infestation caused by the mite *Sarcoptes scabiei* that burrows in the skin surface. Scabies affects people from all socio-economic levels, without regard to age, sex, or standards of personal hygiene. Although scabies is more prominent in crowded living conditions, everyone is susceptible. It is extremely common among children.

The earliest symptoms of scabies are itching, especially at night. Subsequently, small red papules or bites appear. In more advanced cases, the skin may become crusty or scaly.

The female mites prefer warmer sites of the human body. The mite burrows into the outer layer of the skin in tiny red lines about half an inch long to lay eggs. The parasites tend to be noticed first in the webs between the fingers or toes, around the wrist, or in the navel. They can also be commonly found on the backs of elbows, folds of the armpits, beltline and abdomen, creases of the groin, and on genitalia. In children younger than the age of 2 years old, small vesicles (blisters) can also form on the head, neck, palms, and soles. Scabies may be severe for immunocompromised persons.

Mode of Transmission

Scabies is usually spread by direct, prolonged, skin-to-skin contact with a person who has scabies. A quick handshake or hug will not usually spread scabies. Scabies is spread easily to sexual partners and household members. People sharing a bed are also at risk, but clothing and other objects are uncommon sources. Child care facilities are a common site of scabies infestation. The mites can survive three to four days away from human skin.

Incubation Period

People who have never been exposed to scabies usually experience symptoms about four to six weeks after exposure to an infected person. If someone has been infested before, their bodies are sensitized, and symptoms present just one to four days after the exposure. Re-infestations are usually milder than the original episode.

Infectious Period

Scabies can be transmitted as long as the person remains infested and untreated, even before symptoms develop.

School Staff/Nurse Responsibility

1. A skin rash that causes intense itching, especially at night, is a sign of scabies. Students with mild cases can be sent home at the end of their school day.
2. School nurses should notify parents or guardians about suspected cases of scabies so they can contact a licensed health care provider for diagnosis and treatment. Students can return to school the following day after overnight treatment with a prescribed topical scabicide cream.
3. Discreetly manage scabies cases so that the student is not ostracized, isolated, humiliated, or psychologically traumatized.
4. If it is believed that there has been direct, prolonged skin-to-skin contact in the school setting, the school nurse should inform parents and guardians about possible exposure. Provide information pertaining to symptoms, treatment, and prevention, as signs of scabies can occur as late as one to two months after exposure.

5. If multiple students (10 percent or greater of class or school) are affected:
    - Seek assistance from your local health jurisdiction to control the outbreak.
    - Inform parents and guardians of the outbreak.
6. Encourage parents and guardians to notify the school, all close contacts, and others who may have had close skin contact with the affected student.
7. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. A prescribed topical medication is recommended for treatment.
4. Because the lesions are the result of a hypersensitive reaction to the mite, itching may continue for four to six weeks even if the treatment was successful. More prescriptive scabicide treatment will not relieve the post scabies itch. Contact the licensed health care provider for additional comfort measures.

Do not attempt to treat scabies with home remedies. Treatment guidelines include:

1. Examining and treating all family members simultaneously to avoid re-infestation.
2. Applying medication appropriately.
3. Washing all personal items. Bedding and clothing worn next to the skin during the four days before initiation of therapy should be laundered in a washing machine with hot water and dried using a hot cycle. The mites do not survive more than three to four days without skin contact.
4. Placing items you do not wish to launder in the dryer on the hot cycle for 30 minutes.
5. Dry-cleaning items.
6. Placing items in plastic bags and storing them in the garage for two weeks. If the mites do not get a meal within one week, they will die.
7. Vacuuming the entire house and discarding used bags. Environmental disinfectants are unnecessary and unwarranted.

Note: Pets do not need to be treated.

Additional Information

- Scabies is widespread, and transmission usually occurs through prolonged, close personal contact. Education about its symptoms and treatment may help those at risk and eliminate spread. It is usually not serious, except that it causes severe itching and secondary infection from scratching. Scabies in students, like lice and pinworms, does not necessarily indicate poor hygiene.
- If repeated infections occur despite proper treatment, an investigation for unrecognized cases among companions or household members should be undertaken. This should be done in consultation with your local health jurisdiction. The most common cause of treatment failure is inadequate treatment of close personal contacts. All family members should receive prophylactic treatment.
- The use of chemical sprays or "bug bombs" to treat the environment within the school setting is not recommended due to potential toxicity and harm to humans.

Resources

- Centers for Disease Control and Prevention (CDC): Scabies FAQs | CDC

Sexually Transmitted Infections (STIs)

Sexually transmitted infections (STIs) are transmitted by sexual activity such as vaginal, oral, or anal sex. The STIs that are of the greatest concern include HIV/AIDS, chlamydia, syphilis, Human Papillomavirus (genital warts, HPV), herpes, gonorrhea, and hepatitis B. These diseases occur commonly in people between the ages of 15 and 29 years.

The number of reported cases of sexually transmitted infections has climbed sharply in recent years. Studies indicate that the emphasis on symptoms is out of date; screening for asymptomatic infection is also important.

Consider child sexual abuse when gonorrhea, chlamydia, or syphilis is present in a student who is not sexually active. Information on how to and who to report to can be found at How to Report Child Abuse or Neglect | Washington State Department of Children, Youth, and Families (DCYF).

Additional Information

1. For confidential information about STIs, call the national STI Hotline at 1-800-232-4636 or call staff in the Washington State Department of Health STI program for your region.
2. STI clinical education materials for practitioners are available through the UW Clinical STD Prevention Training Center's National STD Curriculum.
3. School nurses can access the most current STI treatment guidelines from the Centers for Disease Control and Prevention (CDC) at Treatment & Screening | STDs | CDC.
4. For a large array of dermatology photographs, go to DermIS Index.

Chlamydia

Description

Chlamydia trachomatis is a bacterium that causes infection of the external and internal genital tract. Most chlamydial infections are asymptomatic. For people with penises, the most common symptoms include pain during urination and an opaque discharge from the urethra. Symptoms for people with vaginas include mucopurulent cervicitis (inflammation of the cervix), cervical ectopy (redness) and friability (easily induced bleeding) of the cervix. If left untreated, complications may occur, including pelvic inflammatory disease and chronic pelvic pain in people with vaginas and epididymitis (inflammation of the testes) in people with penises. This may eventually result in infertility, regardless of a person's sex.

Mode of Transmission

Chlamydia is transmitted by sexual activity involving the penis, vagina, mouth, or rectum.

Incubation Period

Seven to 21 days.

Infectious Period

Chlamydia infections may extend for months in untreated cases, especially if they are asymptomatic. Treatment with current CDC-recommended antibiotics ends infectiousness within days. It is also important for sexual partners of someone with a chlamydia infection to be treated.

School Staff/Nurse Responsibility

1. Refer students to a licensed health care provider for diagnosis and appropriate therapy. If the referred student is age 14 or older and is otherwise capable of making health care decisions, written consent from the student must be obtained before you can disclose the referral or treatment information with the student's parent or guardian (see RCW 70.02.220; RCW 70.24.110).
2. It is mandatory to report suspected child abuse cases. Consider child sexual abuse when chlamydia is present in a student who is not sexually active. Information on how to and who to report to can be found at How to Report Child Abuse or Neglect | Washington State Department of Children, Youth, and Families (DCYF).
3. Maintain and enforce confidentiality for the student. The consent to exchange information and medical records is governed by the Family Educational Rights and Privacy Act (FERPA), the Health Insurance Portability and Accountability Act (HIPAA), Chapter 70.24 RCW, and Chapter 70.02 RCW.
4. If clinical services to support chlamydia diagnosis and treatment exist at your school, such as through a school-based health center, it is mandatory to report all cases diagnosed on site to the local health jurisdiction (WAC 246-101-101).
    - Find the form to report a case in your county at the DOH's Case Reports By County | WA DOH.

Control of Spread

1. To control the spread of chlamydia, public health personnel might interview the student and trace their sexual contacts, if public health capacity permits. Alternatively, the student's partners can be treated with expedited partner therapy, which is the practice of prescribing medication for gonorrhea or chlamydia to exposed partners without testing so they can begin treatment or prevention as quickly as possible.
2. It is essential to notify public health authorities as soon as possible.
3. Rescreen students three to four months after treatment is completed.
4. Students should not be excluded from school for chlamydia.

Additional Information

- Middle school and high school students need accurate information about STIs, their symptoms, causes, treatment, and where treatment can be obtained. When an infection is discovered, stress the need for students to share names of their sexual contacts so they can be interviewed and treated (see RCW 28A.230.020).

Gonorrhea (Clap, Strain, Dose)

Description

Gonorrhea is caused by the bacterium *Neisseria gonorrhoeae*. Gonorrhea genital infections appear somewhat differently in male and female genitalia. Up to 20 percent of people with penises have no symptoms. Symptoms include pain during urination or purulent (pus-like) discharge from the urethra, which usually occurs two to eight days after exposure. Conversely, up to 70 percent of people with vaginas have no symptoms. Gonorrhea may show up as pain during urination or vaginal discharge.

For anyone who contracts gonorrhea, the infection can spread to the pelvic areas and even to the joints, heart, brain, and other organs. Coexisting chlamydial infection and potential pelvic inflammatory disease should be a concern, along with pharyngeal (throat) and anorectal infections.

Mode of Transmission

Gonorrhea is transmitted by sexual activity involving the penis, vagina, mouth, or rectum.

Incubation Period

The incubation period for people with penises is about two to five days. Symptoms develop in most people with vaginas within 10 days of exposure.

Infectious Period

Gonorrhea may extend for months in untreated cases, especially in asymptomatic cases. Treatment with current CDC-recommended antibiotics ends infectiousness within days. *N. gonorrhoeae* changes rapidly, so be sure to consult the most up-to-date treatment guidelines at Gonococcal Infections Among Adolescents and Adults | STI Treatment Guidelines | CDC.

School Staff/Nurse Responsibility

1. Refer students to a licensed health care provider for diagnosis and appropriate therapy. If the referred student is age 14 or older and is otherwise capable of making health care decisions, written consent from the student must be obtained before you can disclose the referral or treatment information with the student's parent or guardian (see RCW 70.02.220; RCW 70.24.110).
2. It is mandatory to report suspected child abuse cases. Consider child sexual abuse when gonorrhea is present in a student who is not sexually active. Information on how to and who to report to can be found at How to Report Child Abuse or Neglect | Washington State Department of Children, Youth, and Families (DCYF).
3. Maintain and enforce confidentiality for the student. The consent to exchange information and medical records is governed by the Family Educational Rights and Privacy Act (FERPA), the Health Insurance Portability and Accountability Act (HIPAA), Chapter 70.24 RCW, and Chapter 70.02 RCW.
4. If clinical services to support gonorrhea diagnosis and treatment exist at your school, such as through a school-based health center, it is mandatory to report all cases diagnosed on site to the local health jurisdiction.
    - Find the form to report a case in your county at Case Reports By County | WA DOH.

Control of Spread

1. To control the spread of gonorrhea, public health personnel might interview the student and trace their sexual contacts, if public health capacity permits. Alternatively, the student's partners can be treated with expedited partner therapy, which is the practice of prescribing medication for gonorrhea or chlamydia to exposed partners without testing so they can begin treatment or prevention as quickly as possible.
2. It is essential to notify public health authorities as soon as possible.
3. Rescreen students three to four months after treatment is completed.
4. No school exclusion is necessary. Individuals should receive treatment as soon as diagnosis is confirmed.

Additional Information

- Middle school and high school students need accurate information about STIs, their symptoms, causes, treatment, and where treatment can be obtained. When an infection is discovered, stress the need for students to share names of their sexual contacts so they can be interviewed and treated (see RCW 28A.230.020).
- Antibiotic resistant strains of gonorrhea may increase the risk of spreading this infection. School nurses should work closely with local health jurisdiction staff to ensure successful treatment and discuss any student whose symptoms have not resolved.

Herpes Simplex Virus, Genital Area

Description

Genital herpes is a recurrent, life-long, viral infection. It is usually caused by Type 2 herpes simplex virus (HSV), though Type 1 infection in the genital area accounts for an increasing percentage of infections.

Genital herpes is asymptomatic or unrecognized in at least two-thirds of those infected. New tests, including serologies, enhance diagnosis. Very large national studies indicate that one-fifth of United States residents over the age of 12 years old have antibodies to Type 2 HSV. The infection can be severe in newborns.

Genital lesions are most infectious when fluid-filled vesicles (blisters) are present. They pose no risk to others unless there is direct contact with infected lesions. Genital herpes infections can be transmitted during sexual activity, whether they are caused by Type 1 or Type 2 virus. It is not acquired from nonsexual sources or objects, such as toilet seats.

Mode of Transmission

Both Types 1 and 2 HSV are transmitted by direct contact with infected skin and secretions during periods of asymptomatic or symptomatic viral shedding. Sores do not need to be present for transmission to occur, as viral shedding is possible while an infected person is asymptomatic. Transmission to newborns occurs most commonly at delivery.

Incubation Period

Two to 12 days, on average four days.

Infectious Period

There is a life-long potential for the spread of genital herpes infection. Skin lesions are infectious until healed. The virus can shed from the site of infection at any time. Intermittent or suppressive therapy with specific antivirals may alleviate outbreaks and viral shedding; they have been shown to reduce transmission.

School Staff/Nurse Responsibility

1. Refer students to a licensed health care provider for diagnosis and appropriate therapy. If the referred student is age 14 or older and is otherwise capable of making health care decisions, written consent from the student must be obtained before you can disclose the referral or treatment information with the student's parent or guardian (see RCW 70.02.220; RCW 70.24.110).

2. It is mandatory to report suspected child abuse cases. Consider child sexual abuse when genital herpes is present in a student who is not sexually active. Information on how to and who to report to can be found at How to Report Child Abuse or Neglect | Washington State Department of Children, Youth, and Families (DCYF).
3. Maintain and enforce confidentiality for the student. The consent to exchange information and medical records is governed by the Family Educational Rights and Privacy Act (FERPA), the Health Insurance Portability and Accountability Act (HIPAA), Chapter 70.24 RCW, and Chapter 70.02 RCW.
4. If clinical services to support herpes diagnosis and treatment exist at your school, such as through a school-based health center, it is mandatory to report all cases diagnosed on site to the local health jurisdiction.
    - Find the form to report a case in your county at Case Reports By County | WA DOH.

Control of Spread

1. Provide education and counseling about the transmission of genital herpes, recurrence potential, and recommended prevention practices to prevent spread. Further information can be found at the American Sexual Health Association (ASHA) website.
2. Exclusion from school is not recommended for genital herpes.

Additional Information

- Middle school and high school students need accurate information about STIs, their symptoms, causes, treatment, and where treatment can be obtained. When an infection is discovered, stress the need for students to share names of their sexual contacts so they can be interviewed and treated (see RCW 28A.230.020).

Human Papillomavirus (HPV, Genital Warts)

Description

Human Papillomavirus (HPV) is a group of over 200 strains of virus, 40 of which can cause infections in genitals. Two strains are responsible for approximately 70 percent of cervical cancers, and two other strains cause 90 percent of genital warts. HPV has also been implicated in head, neck, esophageal, penile, and anal cancers. The strains that cause warts are not associated with cancer.

HPV infections are extremely common. Symptoms can vary; some individuals may have no warts, others many. Warts also vary in appearance, often depending upon location. Some may appear to be grayish and hard; others may be soft and pink. When they do occur, they are frequently clustered. It is important to note that wart-like symptoms (condyloma lata) may also appear in secondary syphilis, so individuals presenting with wart-like symptoms should be evaluated for syphilis.

Most HPV infections do not go on to cause cancer. In most cases, they clear from the body within two years.

A vaccine that protects against the four most common strains of HPV is available for all people between the ages of 9 to 26 years old.

Mode of Transmission

HPV is transmitted through skin-to-skin contact with an infected individual during sexual activity. Warts do not have to be present for the infection to occur due to viral shedding.

Incubation Period

Two weeks to several months.

Infectious Period

HPV is infectious for the duration of the viral infection. Most individuals will clear the infection without intervention within two years.

School Staff/Nurse Responsibility

1. Refer students to a licensed health care provider for diagnosis and appropriate therapy. If the referred student is age 14 or older and is otherwise capable of making health care decisions, written consent from the student must be obtained before you can disclose the referral or treatment information with the student's parent or guardian (see RCW 70.02.220; RCW 70.24.110).
2. It is mandatory to report suspected child abuse cases. Consider child sexual abuse when HPV is present in a student who is not sexually active. Information on how to and who to report to can be found at How to Report Child Abuse or Neglect | Washington State Department of Children, Youth, and Families (DCYF).
3. Maintain and enforce confidentiality for the student. The consent to exchange information and medical records is governed by the Family Educational Rights and Privacy Act (FERPA), the Health Insurance Portability and Accountability Act (HIPAA), Chapter 70.24 RCW, and Chapter 70.02 RCW.
4. Provide education and counseling regarding transmission of disease, and recommended prevention practices to prevent spread.
5. There is no reporting requirement for HPV.

Additional Information

- Middle school and high school students need accurate information about STIs, their symptoms, causes, treatment, and where treatment can be obtained (see RCW 28A.230.020).
- All people between the ages of 9 to 26 years old can be vaccinated against the most common strains of HPV.
- Beginning with sixth grade entry, every public school in the state needs to provide parents and guardians with information about human papillomavirus disease and the HPV vaccine at the beginning of every school year (see RCW 28A.210.080).

Non-Gonococcal Urethritis (NGU)

Description

Non-gonococcal urethritis (NGU) describes inflammation of the urethra. Among people with penises, it is more common than gonorrhea.

NGU is caused by a variety of bacteria. Chlamydia and *Mycoplasma genitalium* are the most frequent sources. Other bacteria are involved in a significant number of cases, but almost half of all cases do not have a specific etiology identified.

Symptoms are very similar to gonorrhea, with pain and a pus-like to mucous-like discharge from the urethra as well as discomfort with urination. Many infected individuals have no symptoms. Diagnosis is based on symptoms, laboratory studies, and negative cultures for gonorrhea.

Mode of Transmission

NGU is transmitted by sexual contact.

Incubation Period

Generally, two to 21 days. The incubation period may be longer.

Infectious Period

NGU is infectious for the duration of the bacterial infection.

School Staff/Nurse Responsibility

1. Refer students to a licensed health care provider for diagnosis and appropriate therapy. If the referred student is age 14 or older and is otherwise capable of making health care decisions, written consent from the student must be obtained before you can disclose the referral or treatment information with the student's parent or guardian (see RCW 70.02.220; RCW 70.24.110).
2. It is mandatory to report suspected child abuse cases. Consider child sexual abuse when NGU is present in a student who is not sexually active. Information on how to and who to report to can be found at How to Report Child Abuse or Neglect | Washington State Department of Children, Youth, and Families (DCYF).
3. Maintain and enforce confidentiality for the student. The consent to exchange information and medical records is governed by the Family Educational Rights and Privacy Act (FERPA), the Health Insurance Portability and Accountability Act (HIPAA), Chapter 70.24 RCW, and Chapter 70.02 RCW.

Control of Spread

1. To control the spread of NGU, public health personnel might interview the student and trace their sexual contacts, if testing identifies a reportable condition and public health capacity permits. The sexual contacts might be referred to a licensed health care professional for examination and treatment. Schools are required to cooperate with their local health jurisdiction staff during the investigation.
2. Recurrent NGU might be due to lack of compliance with treatment, failure to treat sexual partners, or reinfection. .
3. Exclusion from school is not necessary for NGU.

Additional Information

- Middle school and high school students need accurate information about STIs, their symptoms, causes, treatment, and where treatment can be obtained (see RCW 28A.230.020).

Syphilis

Description

Syphilis is a potentially life-threatening disease caused by the bacterium *Treponema pallidum*. It can be acute or chronic.

The most distinctive early sign of syphilis is called a chancre—a shallow, painless ulcer with a firm border that is usually located on genital surfaces, though it can appear on other areas of the body too. The chancre will usually disappear within three to five weeks, even without treatment. Many individuals experience a variable period of latency (no symptoms) next, which can last several weeks or not occur at all. Blood tests for syphilis in the primary stage (during the first days after symptoms begin) are sometimes false negatives.

Secondary symptoms develop next, including a skin rash, wart-like lesions, alopecia, and/or patches in the mouth and throat. These symptoms can last two to six weeks. At this secondary stage, blood tests for syphilis are always positive. Another period of latency follows.

Individuals can remain asymptomatic throughout life, or they might progress to the late destructive stages of the disease. Much later, the infection can involve the nervous system, heart, skin, and bone. Syphilis may also enter the central nervous system or cause ocular or optic infection at any stage of disease, causing unexpected neurologic symptoms and difficulties with hearing or vision.

In an untreated person capable of pregnancy, syphilis can be transmitted to a fetus regardless of the stage of the disease.

Mode of Transmission

Except for congenital infection, syphilis is transmitted through direct contact with an infectious lesion, such as a chancre, a mucous patch, or condyloma lata. Transmission is most common in primary and secondary stages.

Incubation Period

10 to 90 days, on average 21 days.

Infectious Period

Appropriate antibiotic treatment ends infectiousness within 24 hours.

School Staff/Nurse Responsibility

1. Refer students to a licensed health care provider for diagnosis and appropriate therapy. If the referred student is age 14 or older and is otherwise capable of making health care decisions, written consent from the student must be obtained before you can disclose the referral or treatment information with the student's parent or guardian (see RCW 70.02.220; RCW 70.24.110).
2. It is mandatory to report suspected child abuse cases. Consider child sexual abuse when syphilis is present in a student who is not sexually active. Information on how and who to report to can be found at How to Report Child Abuse or Neglect | Washington State Department of Children, Youth, and Families.

3. If clinical services to support syphilis diagnosis and treatment exist at your school, such as through a school-based health center, it is mandatory to report all cases diagnosed on site to the local health jurisdiction.
    - Find the form to report a case in your county at Case Reports By County | WA DOH
4. Maintain and enforce confidentiality for the student. The consent to exchange information and medical records is governed by the Family Educational Rights and Privacy Act (FERPA), the Health Insurance Portability and Accountability Act (HIPAA), Chapter 70.24 RCW, and Chapter 70.02 RCW.

Control of Spread

1. To control the spread of syphilis, public health personnel might interview the student and trace their sexual contacts, if testing identifies a reportable condition and public health capacity permits. The sexual contacts might be referred to a licensed health care professional for examination and treatment. Schools are required to cooperate with their local health jurisdiction staff during the investigation.
2. Adequate treatment will limit spread from the primary site to other organs and from one individual to another.

Additional Information

- Middle school and high school students need accurate information about STIs, their symptoms, causes, treatment, and where treatment can be obtained (see RCW 28A.230.020).
- No vaccine for syphilis is available. Simultaneous infection with syphilis and other STIs is common. Untreated disease may become a very significant health problem in the future.
- All pregnant people should speak to their licensed health care provider about their risk for syphilis. Congenital syphilis – when a newborn contracts the disease during delivery – can cause serious complications in the baby. With effective diagnosis and treatment, this tragedy can be avoided.

Trichomoniasis ("Trich")

Description

Trichomoniasis ("trich") is one of the most common sexually transmitted infections. It is caused by a parasitic protozoa called Trichomonas vaginalis.

While trichomoniasis can infect all people, people with penises seldom have any symptoms. Symptoms for people with vaginas include abnormal vaginal discharge, itching, burning, and vaginal odor. Many are also asymptomatic. Diagnosis is confirmed by laboratory smear, culture, or other test.

Some evidence links trichomoniasis infections to low birth-weight babies and premature births.

Mode of Transmission

Trichomoniasis is transmitted through sexual contact.

Incubation Period

Five to 28 days.

Infectious Period

Trichomoniasis is infectious for the duration of the infection.

School Staff/Nurse Responsibility

1. It is not required to report cases of trichomoniasis to your local health jurisdiction.
2. Refer students to a licensed health care provider for diagnosis and appropriate therapy. If the referred student is age 14 or older and is otherwise capable of making health care decisions, written consent from the student must be obtained before you can disclose the referral or treatment information with the student's parent or guardian (see RCW 70.02.220; RCW 70.24.110).
3. It is mandatory to report suspected child abuse cases. Consider child sexual abuse when trich is present in a student who is not sexually active. Information on how to and who to report to can be found at How to Report Child Abuse or Neglect | Washington State Department of Children, Youth, and Families (DCYF).
4. Maintain and enforce confidentiality for the student. The consent to exchange information and medical records is governed by the Family Educational Rights and Privacy Act (FERPA), the Health Insurance Portability and Accountability Act (HIPAA), Chapter 70.24 RCW, and Chapter 70.02 RCW.

Control of Spread

1. To control the spread of trichomoniasis, all sexual contacts of the infected person need to visit a licensed health care professional for medical examination and treatment concurrently. This needs to occur even if they are asymptomatic to avoid reinfections after therapy is completed.
2. Exclusion from school is not recommended for trichomoniasis.

Additional Information

- Middle school and high school students need accurate information about STIs, their symptoms, causes, treatment, and where treatment can be obtained (see RCW 28A.230.020).

Vaginitis

Description

Vaginitis is an inflammation of the vagina when natural bacteria levels are unbalanced. The most prevalent types of vaginitis that are infectious are trichomoniasis (trich), candidiasis (yeast), and bacterial vaginosis (including Gardnerella vaginitis or other nonspecific infections). Symptoms include abnormal vaginal discharge, itching, burning, and vaginal odor. Diagnosis is confirmed by laboratory smear, culture, or other test.

Mode of Transmission

Vaginal infections can be transmitted by intimate sexual contact, but symptoms may also originate from excessive douching, use of birth control pills, certain antibiotics, and other sources such as allergic reactions to vaginal products.

Incubation Period

Variable, depending on the type of vaginitis.

Infectious Period

Vaginitis caused by microorganisms is infectious for the duration of infection.

School/Nurse Responsibility

1. It is not required to report cases of vaginitis to your local health jurisdiction.
2. Refer students to a licensed health care provider for diagnosis and appropriate therapy. If the referred student is age 14 or older and is otherwise capable of making health care decisions, written consent from the student must be obtained before you can disclose the referral or treatment information with the student's parent or guardian (see RCW 70.02.220; RCW 70.24.110).
3. It is mandatory to report suspected child abuse cases. Consider child sexual abuse when vaginitis is present in a student who is not sexually active. Information on how to and who to report to can be found at How to Report Child Abuse or Neglect | Washington State Department of Children, Youth, and Families (DCYF).
4. Maintain and enforce confidentiality for the student. The consent to exchange information and medical records is governed by the Family Educational Rights and Privacy Act (FERPA), the Health Insurance Portability and Accountability Act (HIPAA), Chapter 70.24 RCW, and Chapter 70.02 RCW.

Control of Spread

1. If the diagnosis is trichomoniasis, all sexual contacts of the infected person need to visit a licensed health care professional for medical examination and treatment **concurrently**. This needs to occur even if they are asymptomatic to avoid reinfections after therapy is completed.
2. Exclusion from school is not recommended for vaginitis.

Additional Information

- Middle school and high school students need accurate information about STIs, their symptoms, causes, treatment, and where treatment can be obtained (see RCW 28A.230.020).

Smallpox

Description

Smallpox was eradicated globally in 1979. Routine vaccination for smallpox no longer occurs. A single case of smallpox would be a public health emergency.

Smallpox is an acute infectious viral disease. It is characterized by sudden onset of fever greater than 101°F, fatigue, headache, muscle pain, nausea, vomiting, and backache for one to four days before the onset of rash. Lesions begin as raised red spots (papules) and become firm vesicles (blisters), often with a central dimple. Unlike chickenpox, lesions appear at the same stage of development at the same time no matter where they are on the body. Crusts begin to form in about 14 days and begin to separate during the third week.

The smallpox vaccine is used in special circumstances to vaccinate some military personnel and laboratory workers. The vaccine is created using a different but related virus that causes the same kind of lesion in a limited area (e.g., site of inoculation).

Mode of Transmission

Smallpox is spread by respiratory viral shedding, such as sneezing and coughing. It requires prolonged direct contact between people to spread. Vaccine virus can spread from the vaccine inoculation site or from fresh scabs to another person by hands or skin contact.

Incubation Period

Seven to 19 days, usually 10 to 14 days.

Infectious Period

Lesions are infectious until the dry scab crusts separate. The scabs are considered infectious. A person with smallpox is sometimes contagious when their fever begins, but the person becomes most contagious when they develop a rash.

School Staff/Nurse Responsibility

1. Immediately report any suspected case of smallpox or smallpox vaccine rash to your local health jurisdiction by telephone.
2. Refer any suspected cases to a licensed health care provider.
3. Your local health jurisdiction will determine disease control measures.
4. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to district infection control program protocols and policies for infectious diseases.
3. Only individuals with up-to-date vaccination for smallpox should examine a potential case.
4. Maintain respiratory isolation of the individual if smallpox is suspected. Cover lesions that form from the smallpox vaccine, which is a different virus that is also contagious.
5. Use standard precautions including gloves for any contact with dressings or articles soiled with fluid or scabs from skin lesions.
6. Dispose of all dressings in biohazard bags.

7. Follow recommendations from your local health jurisdiction about excluding the student from school.

Additional Information

- If there was a smallpox virus outbreak, vaccination would be recommended for people exposed to the smallpox virus (within three to seven days) and to protect those who may be at risk of exposure.

Resources

- Washington State Department of Health (DOH): Smallpox | DOH
- Centers for Disease Control and Prevention (CDC): Smallpox | CDC

Streptococcal Infections (Sore Throat, Scarlet Fever, Necrotizing Fasciitis)

Description

Streptococcal sore throat (pharyngitis) is an acute bacterial infection characterized by a sore throat, fever, enlarged inflamed tonsils (sometimes with exudate), inflamed pharynx (throat), and tender cervical adenopathy (nodes in the neck and head). Not all sore throats are caused by Group A hemolytic streptococcus. For example, infectious mononucleosis can cause a similar sore throat. Students can also carry streptococci in their throats without experiencing any symptoms.

Scarlet fever typically occurs in conjunction with tonsillopharyngitis (tonsillitis). Certain strains of streptococci produce a toxin that causes the fever. The rash is diffuse and usually appears on the neck, chest, groin, and axilla (armpits). It does not usually involve the face, the area around the mouth, and inside of the elbow. The erythematous rash typically blanches with pressure and has a 'sandpaper' feel. It may make the skin peel, especially on fingers and toes.

Antibiotics can treat streptococcal infections. Untreated milder streptococcal infections can lead to serious complications, such as rheumatic fever and kidney disease (glomerulonephritis). No vaccines are currently available for general use to prevent strep throat.

Mode of Transmission

Streptococcal infection is usually transmitted by airborne droplets or direct skin contact with an infected person. A person can spread the infection from one part of the body to another by scratching.

Incubation Period

From two to five days.

Infectious Period

Streptococcal disease is most infectious in the acute phase. Untreated, it may be infectious for several weeks. If it is treated with antibiotics, the infectious period can last less than 24 hours. Some individuals can remain carriers for prolonged periods.

School Staff/Nurse Responsibility

1. Report suspected or confirmed outbreaks of streptococcal infections associated with your school to your local health jurisdiction.
2. Refer students with a symptomatic sore throat or unexplained fever or rash to a licensed health care provider.
3. Notify parents and guardians of students with a history of rheumatic fever if there is a cluster of streptococcal pharyngitis at school.
4. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).

2. Refer to district infection control program protocols and policies for infectious diseases.
3. Students with sore throat and fever should be referred to a health care provider for evaluation. Suspected cases may be evaluated and tested, using either a rapid antigen detection test (RADT) or a throat culture. A negative RADT does not rule out strep throat, however. Often, the student's licensed health care provider will perform a throat culture if they have a high risk of infection. Students who test positive should be excluded from school until at least 24 hours after they begin an antimicrobial treatment. They should be able to return to school after 24 hours of appropriate treatment, when they have no fever without the use of fever-reducing medications, and when they are physically well enough to attend. No follow-up testing is necessary after appropriate treatment.
4. When throat cultures are performed on a group of students to check them for strep, there will almost always be asymptomatic students who test positive. These students don't need to be excluded from school, and they don't require treatment.
5. Tell your local health jurisdiction about any significant increases in the number of sore throats or increases above normal in school absenteeism (above 10 percent) so they can begin an epidemiologic investigation.
6. Instruct students not to share items that may be contaminated with saliva, such as lip balm, beverage containers, eating utensils, masks, cell phones, or anything that directly touches the eyes, nose, or mouth.
7. Clean or dispose of articles soiled with nose and throat discharges.
8. Remind students to cover their mouth with a tissue when coughing or sneezing. If no tissue is available, encourage students to "catch your cold in your elbow" by covering their mouth and nose with the crook of their arm and coughing or sneezing into their shirt or coat sleeve.
9. Encourage proper hand washing techniques.

Additional Information

- As with all antibiotic prescriptions, the family should be encouraged to take (or administer to their child) the full course of prescribed treatment, even if the symptoms disappear before all the medication is taken. Years of prescribing antibiotics for nonbacterial infections and failing to complete the full courses of treatment have promoted the development of antibiotic-resistant bacteria. Antibiotic resistance occurs when bacteria mutate after repeated exposure to antibiotics. This reduces or eliminates the effectiveness of drugs that are designed to cure infections.
- Routine classroom or school culture surveys to find strep carriers are not justified unless local public health officials determine an unusual prevalence of streptococcal disease or its complications, such as rheumatic fever or kidney disease (glomerulonephritis).

Tetanus (Lockjaw)

Description

Tetanus is a bacterial disease that has become rare in the United States because of routine immunization. Tetanus growth in a deep wound produces a toxin that can cause localized spasm and pain in the muscles at the site of injury, severe generalized muscle spasms (most noticeably in the jaw and neck), generalized pain, seizures, and death. Complications include bone fractures and abnormal heart rhythms.

Complete recovery can take months, resulting in lengthy hospitalizations for some people. Case fatality rate for generalized tetanus is 10 percent or higher, depending on available care. More deaths occur in infants and older adults than other groups. Some rarer presentations of tetanus include local muscle spasms in areas contiguous to the wound (known as localized tetanus) and cephalic tetanus, which often progress to generalized tetanus.

In the United States, nearly all cases of tetanus occur in individuals who have never received a tetanus vaccine or who have not received their 10-year booster vaccine.

Mode of Transmission

Transmission occurs when a wound is contaminated by soil, dust, water, particles, or especially, animal feces or manure. The entry wound may or may not be apparent. Deep puncture wounds are a particular risk because the bacteria grow in a low-oxygen or oxygen-free environment.

Incubation Period

Usually three to 21 days. The average is eight days.

Infectious Period

None.

School Staff/Nurse Responsibility

1. Provide basic first aid to wounds immediately. Wash thoroughly with soap and water, using standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer the student to a licensed health care provider for evaluation of the wound, additional medical care, and a tetanus booster, if needed.
3. Notify parents and guardians of the wound.
4. Maintain and support confidentiality for students and/or staff.
5. Refer to district infection control program protocols and policies for infectious diseases.

Control of Spread

Screen students for any school vaccine entry requirements.

Additional Information

- The tetanus vaccine is required for school entry in Washington state. Surveillance and education are essential to ensure your students are adequately immunized. School immunization requirements for kindergarten and grade 6 provide adequate immunization levels. Adults who have not received a Tdap booster should get one, followed by a booster dose of Td every ten years during their lifetime.

Tick-Borne Illness

Description

Ticks are eight-legged arthropods that feed on blood from humans and animals, such as rodents and birds. Once on a host, ticks burrow their mouthparts into the skin for a blood meal. Ticks feed anywhere from several minutes to several days depending on their species, life stage, and host. Some species of ticks can transmit pathogens to people and animals during this bloodmeal.

The most common hard ticks in Washington are found in woody, brushy, or grassy areas. Hard ticks have hard coverings and are usually dark, but some may also have a pattern on their backs. Soft ticks lack the hard covering and may be pale or brown. Tick size varies depending on the developmental stage and recent feeding, varying from one-eighth to one-half of an inch in length.

In the Pacific Northwest, relatively few tick-borne disease cases are reported each year in comparison to other regions of the United States. Diseases known to be acquired in Washington include:

- Lyme disease: typical symptoms include a characteristic "bull's eye" (target)-shaped rash that is at least 5 cm in diameter, along with fever, headache, and muscle or joint pain. Lyme disease can be treated with antibiotics, but if left untreated, later symptoms can include recurring joint pain and swelling, heart disease, and nervous system disorders. In Washington, the ticks that spread Lyme disease (*Ixodes pacificus*) are primarily found in western Washington but are also present on the eastern slopes of the Cascades.
- Babesiosis: symptoms may include fever, chills, headache, body or muscle aches, loss of appetite, nausea, and anemia. Among persons who do not have spleens, have weakened immune systems, or serious health conditions, babesiosis can be life-threatening. Rare cases occur in western Washington.
- Anaplasmosis: symptoms may include chills, fever, severe headache, muscle aches, nausea, vomiting and diarrhea. These symptoms can progress to severe illness if treatment is delayed or the person has a weakened immune system. In Washington, the ticks that spread anaplasmosis are primarily found in western Washington but are also present on the eastern slopes of the Cascades.
- Rocky Mountain spotted fever (RMSF): typically starts with fever, nausea, vomiting, stomach pain, muscle aches, headache, and lack of appetite. Two to four days after fever begins, rash may develop. Presumptive treatment with doxycycline is recommended in people of all ages if RMSF is suspected. The ticks that can carry RMSF in Washington are found throughout eastern Washington.
- Tularemia can be spread in several ways, including tick bites. Symptoms may include fever, headache, swollen lymph nodes, and a skin ulcer near the bite. Cases occur throughout the state, although tularemia is most commonly associated with handling infected animals or inhaling contaminated dust. The ticks that can carry tularemia in Washington are found throughout eastern Washington.
- Tick paralysis: is a rare disease thought to be caused by a toxin in tick saliva. Symptoms include progressive paralysis that usually starts in the legs, resulting in muscle weakness, loss of coordination, numbness, and difficulty standing or walking. Paralysis progresses upwards to the abdomen, back, and chest. If the tick is not removed, breathing muscles may be paralyzed leading to death. Many species of ticks can cause tick paralysis. Prompt removal of the tick usually leads to complete recovery. While cases occur primarily in eastern Washington, they can also occur in western Washington.

- Relapsing fever: there are two different types of tick-borne relapsing fever in Washington which are soft tick relapsing fever and hard tick relapsing fever. Both can cause intermittent fevers, which may last several weeks or longer, as well as headaches, muscle and joint aches, nausea, vomiting, and rash. Symptoms can recur repeatedly if the infection is not treated. Cases of soft tick relapsing fever occur mainly in northeastern Washington and on the eastern slopes of the Cascades. The ticks that carry hard tick relapsing fever are found in western Washington and on the eastern slopes of the Cascades.

Mode of Transmission

Ticks can spread an infection when they attach and bite to get a blood meal.

Incubation Period

Varies by disease.

Infectious Period

Tick-borne diseases are not spread directly between people except rarely through blood transfusion or organ donation.

School Staff/Nurse Responsibility

1. Prompt tick removal is a priority. Safe tick removal is described in the WA DOH Ticks webpage. Also, refer to How to Respond Injury and Illness at School.
2. Notify parents or guardians about any ticks or tick bites found on their child, and about the importance of seeking health care if illness occurs within one month of the bite. If symptoms develop, the student should be evaluated by a health care provider. Be sure the parent or guardian informs the provider about the recent tick bite, when the bite occurred, and where the student most likely acquired the tick. Save the tick for submission to DOH for identification, if possible, and complete: Tick Submission Form.
3. Advise students not to handle, crush, or attempt to remove ticks on their own.
4. If the student reports a known tick bite and the tick is no longer attached, wash the bite site thoroughly with soap and water.
5. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
6. Refer to any district infection control program protocols and policies for infectious diseases.
7. Refer suspected cases of any tick-borne illness to a licensed health care provider.
8. Maintain and support confidentiality for students and/or staff.

Control of Spread

Tick-borne diseases are not expected to be spread in schools.

Additional Information

Students taking field trips could be at risk of tick exposures, depending on the season, location, and activity. If students and staff will spend time outdoors in risk areas (e.g., woody, brushy, or grassy areas), particularly in the spring and summer, instruct them to:

1. Wear long pants and a long-sleeved shirt. Tuck pant legs into socks or boots, and tuck shirts into pants. Ticks on the clothing are easier to see and remove.

2. Wear light colored and tightly woven clothing. It is easier to see a dark tick on light colored clothing, and ticks are less able to attach themselves to tightly woven fabrics.
3. Use an EPA-registered tick repellent when in tick habitat.
4. If students are staying overnight in wood cabins or structures in rural or wilderness areas, be sure that the cabins are not infested with rodents that could bring in soft ticks.
5. Securely store and minimize food and snacks within the cabin. Remove food waste away from the cabin to prevent attracting rodents.
6. Ensure parents or guardians check clothing, gear, and students thoroughly for ticks after the outdoor activity. Report any ticks to a parent or guardian and a school nurse, if available.

Note: Rodents may also carry hantaviruses; see WA DOH Hantavirus for more information.

Resources

- Washington State Department of Health (DOH):
  - Tick-borne Diseases | DOH
  - Ticks | DOH
- Centers for Disease Control and Prevention (CDC): Ticks | CDC

Tuberculosis

Description

Tuberculosis (TB) is a bacterial disease caused by *Mycobacterium tuberculosis*. It can affect any part of the body, but it most commonly infects the lungs. Common symptoms of TB disease are chronic cough lasting longer than two to three weeks, unexplained weight loss, coughing up blood, night sweats, chest pain, fever, and fatigue.

When most healthy children and adults breathe in the TB bacteria, the body fights the bacteria and keeps it from growing enough to cause disease. The bacteria cannot always be completely killed, so a small amount remains in the body in a semi-dormant state. This condition is known as latent TB infection (LTBI). People with LTBI have no symptoms, don't feel sick, and can't spread the TB bacteria to others. In some individuals, the bacteria will replicate and cause TB disease, which can happen soon after exposure or years later. Infants and others with a compromised immune system may be more susceptible to rapidly developing disease at the time of initial infection because of a diminished immune system response.

Mode of Transmission

Transmission usually occurs from the inhalation of airborne droplets expelled from a person with pulmonary (lung) or laryngeal (windpipe) disease by sneezing, coughing, singing, and even talking. Transmission from children younger than 10 years old is rare, but some incidences have been reported in children this age with disease characteristics typically seen in adults—such as cavities in the upper lung lobes. Those who spend a lot of cumulative time in enclosed spaces with people who have infectious TB disease and those most vulnerable are the most likely to be infected.

Incubation Period

From the time the TB bacilli enters the body and begins the infection process, it usually takes two to eight weeks to develop a positive TB test using a purified protein derivative (PPD) solution or an interferon-gamma release assay (IGRA) blood test. These tests are not a direct detection of bacteria, but rather a measure of the immune system response to the TB bacteria. TB disease can develop very soon to many years after infection. For further information on TB and LTBI disease development, refer to the *Additional Information* section below.

Infectious Period

When the TB bacteria replicate in the lungs and expel into the surrounding air, infectiousness persists as long as enough living bacteria are present, which may be shown by sputum tests. Effective drug treatment will usually diminish the infectiousness rapidly. Your local health jurisdiction will advise when a student or staff member with TB disease can return to school after diagnosis.

Treatment

Generally, individuals who have a positive TB skin or blood test should have an initial chest x-ray and symptom screening to rule out the presence of any active pulmonary disease process. Most individuals with latent TB infection (LTBI) will benefit from antibiotic therapy to prevent the progression to disease. LTBI treatment usually consists of taking one or two medications for three to nine months. All individuals with TB disease are typically treated with a minimum of four antituberculosis antibiotics for four months to a year or longer, depending on their specific

disease course and antibiotic resistance. Consult your local health jurisdiction regarding the specifics of individual cases.

School Staff/Nurse Responsibility

1. Reporting any suspected or known cases of TB disease to your local health jurisdiction is mandatory (see WAC 246-101-101, or go to the DOH Notifiable Conditions List).
2. Do not report positive TB tests to your local health jurisdiction unless TB testing was performed as part of a contact investigation or is reportable to your particular local health jurisdiction (rare). Do not exclude students or staff because of a positive TB skin or blood test reaction alone.
3. Refer any student or staff with possible symptoms of TB disease to a licensed health care provider for TB evaluation. Use of the student's existing licensed health care provider is preferable. Consult with your local health jurisdiction as needed.
4. Assist your local health jurisdiction with contact investigations when a person with active TB disease has been identified in the school. Assist your local health jurisdiction with TB testing of school contacts when indicated.
5. Help your staff dispel anxiety in those who are not infectious. Promote understanding within the student and faculty populations regarding TB disease versus TB infection. Consult with your local health jurisdiction TB program for assistance.
6. Maintain and support confidentiality for students and/or staff.

Control of Spread

1. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
2. Refer to the district infection control program protocols and policies for infectious diseases.
3. Those diagnosed with active TB disease must be under treatment with anti-TB drugs.
4. Local health jurisdiction officials must give permission for treated individuals to return to school.
5. Individuals whose TB skin or blood test is positive should be referred to a licensed health care provider for appropriate medical evaluation and possible treatment for latent TB infection.
6. Students or staff without symptoms should not be excluded from school based on a positive TB test alone.
7. Remind students to cover their mouth with a tissue when coughing or sneezing. If no tissue is available, encourage students to "catch your cold in your elbow" by coughing or sneezing into their sleeves.
8. Clean or dispose of articles soiled with nose or throat discharges.

Additional Information

- No TB immunization is recommended in the United States. In some countries, the Bacillus Calmette-Guerin (BCG) vaccine is given. Its effectiveness wanes quickly and is not thought to prevent infection and disease in older children and adults. It is not recommended in countries like the United States where the incidence of TB is low. Those who have had this vaccine may have a false-positive TB skin test.

- Routine TB testing of students is no longer recommended in Washington state. However, in specific situations or populations, the risk of exposure may be greater than normal. Schools should consult with their local health jurisdictions for guidance.
- In the United States, unless treated, about five percent of the people who have recently been infected with TB will develop TB disease in the first year or two after infection. Another five percent will develop TB disease later in their lives. In other words, about 10 percent of all people with normal immune systems who have LTBI will develop TB disease at some point in their lives. The remaining 90 percent will remain free of TB disease for the rest of their lives. However, some conditions can greatly increase an individual's risk of developing TB disease.
- Individuals who are younger than 5 years old or have some health conditions have a higher risk of LTBI progressing to disease. These conditions impact the ability of the body's immune system to control the spread and replication of the bacteria. For example, the risk of progression to TB disease may be about three times higher for those with diabetes or more than 100 times higher for those with human immunodeficiency virus (HIV) infection compared to people without these health conditions. Those with latent TB infection should be evaluated by a healthcare provider for possible treatment to prevent progression to TB disease.

Resources

- Washington State Department of Health (DOH) TB manual: TB Services and Standards Manual (only available through Local Health Jurisdictions) | DOH
- Rutgers Global Tuberculosis Institute: Tuberculosis Handbook for School Nurses (2015)
- Heartland National TB Center (2022): TB Screening Tests in Children
- Curry International Tuberculosis Center (2022): Tuberculosis Contact Investigation in Schools Toolkit | UCSF

Warts

Description

Warts are skin-colored growths on exposed areas of the skin and mucous membranes caused by more than 200 different papillomaviruses. Warts are usually self-limited. Their names and appearance depend on the part of the body affected, including genital, plantar, oral, flat, facial, filiform, common, and periungual. They may be smooth and flat (e.g., plantar warts on the soles of the feet), raised (as on fingers, knees, and hands), or elongated (as on face and neck). Warts usually do not hurt, but they can become very painful if secondary infections occur because of scratching. New warts may occur in an individual if they pick or scratch the initial wart.

Mode of Transmission

Warts are usually transmitted by direct skin-to-skin contact with a person who is shedding the virus. The transmitter may or may not have symptoms. Contaminated floors and other objects may cause the wart virus to spread.

Incubation Period

Variable, approximately two to six months.

Infectious Period

The infectious period of warts is unknown. The virus is shed at least if visible lesions persist. Shedding continues intermittently when warts are not present.

School Staff/Nurse Responsibility

1. Make a referral to a licensed health care provider when warts are extensive and bothersome to the student or parents and guardians. Most warts will disappear spontaneously. Warts may fail to disappear even with repeated treatment, and they may recur after an apparent cure. They can be treated with locally applied chemicals, surgery, cautery, or freezing with liquid nitrogen.
2. Clean and disinfect floors, mats, and other equipment if many cases of plantar warts occur. Students with plantar warts should be instructed to wear shower shoes for showering or be excused from showering until warts disappear.
3. Use standard precautions (see Safe Cleaning and Disinfecting Guidance for Schools).
4. Refer to district infection control program protocols and policies for infectious diseases.
5. Sexual abuse must be considered if genital warts are found in children. Reporting suspected child abuse cases is mandatory. Information on how to and who to report to can be found at How to Report Child Abuse or Neglect | Washington State Department of Children, Youth, and Families (DCYF).
6. Maintain and support confidentiality for students and/or staff.

Additional Information

- Inform students and staff that transmission occurs through direct person-to-person contact.

Appendix I: RCW's and WAC's

Revised Code of Washington (RCW)

Link	Name
Chapter 28A.210 RCW	**Health–Screening and Requirements**
RCW 28A.210.060- RCW 28A.210.170	Immunization Laws
RCW 28A.210.080	Immunization Program–Information regarding meningococcal disease
RCW 28A.210.010	Contagious Diseases, Limiting Contact–Rules
RCW 28A.230.020	Common School Curriculum–Fundamentals in Conduct
Chapter 70.02 RCW	**Medical Records–Health Care Information Access and Disclosure**
RCW 70.02.220	Sexually transmitted diseases–Permitted and mandatory disclosures
Chapter 70.24 RCW	**Control and Treatment of Sexually Transmitted Diseases**
RCW 70.24.110	Treatment, Consent, Liability for Payment for care

Washington Administrative Code (WAC)

Link	Name
Chapter 246-100 WAC	**Communicable and Certain Other Diseases**
WAC 246-100-006	Purpose
WAC 246-100-011	Definitions
WAC 246-100-021	Responsibilities and Duties–Health Care Providers
WAC 246-100-191	Animals–General measures to prevent human disease
WAC 246-100-192	Animals in public settings–Measures to prevent human disease
WAC 246-100-197	Rabies–Measures to prevent human disease

Link	Name
WAC 246-100-201	Psittacosis—Measures to prevent human disease
Chapter 246-101 WAC	**Notifiable Conditions**
WAC 246-101-101	Notifiable conditions—Health care providers
WAC 246-101-105	Duties—Health care providers
WAC 246-101-110	Means of Notification—Health care providers
WAC 246-101-115	Content of Case Reports—Health care providers
WAC 246-101-120	Handling Confidential Information—Health care providers
WAC 246-101-415	Duties—Child care facilities
WAC 246-101-420	Duties—Schools
WAC 246-101-525	Special Conditions-Influenza-Local Health Jurisdictions
Chapter 246-110 WAC	**Contagious Disease—School Districts and Childcare Centers**
WAC 246-110-001	Purpose
WAC 246-110-010	Definitions
WAC 246-110-020	Control of Communicable (Contagious) Disease
Chapter 246-366 WAC	**Primary and Secondary Schools**
WAC 246-366-001	Introduction
WAC 246-366-005	Purpose
WAC 246-366-010	Definitions
Chapter 296-125 WAC	**Nonagricultural Employment of Minors**
WAC 296-125-030 (24)	Prohibited and hazardous employment — All minors
Chapter 296-823 WAC	**Occupational Exposure to Bloodborne Pathogens**

Appendix II: Local Health Jurisdictions

WA DOH Local Health Jurisdiction Directory: https://doh.wa.gov/about-us/washingtons-public-health-system/washington-state-local-health-jurisdictions

Local Health Jurisdiction	Phone Number
Adams County Health District https://www.co.adams.wa.us/departments/health_department/health.php	509-659-3315
Asotin County Health District http://ac-hd.org/	509-243-3344
Benton-Franklin Health District http://www.bfhd.wa.gov	509-460-4200
Chelan-Douglas Health District http://www.cdhd.wa.gov	509-886-6400
Clallam County Department of Health and Human Services https://www.clallamcountywa.gov	360-417-2274
Clark County Public Health http://www.clark.wa.gov/public-health/index.asp	360-397-8000
Columbia County Public Health District https://www.columbiaco.com/18/Public-Health	509-382-2181
Cowlitz County Health Department http://www.co.cowlitz.wa.us/health	360-414-5599
Garfield County Health District https://www.garfieldcountywa.gov/publichealth	509-843-3412
Grant County Health District http://www.granthealth.org	509-766-7960
Grays Harbor County Public Health and Social Services https://www.healthygh.org/	360-532-8631

Local Health Jurisdiction	Phone Number
Island County Health Department http://www.islandcounty.net/health/	360-679-7350
Jefferson County Health and Human Services http://www.jeffersoncountypublichealth.org/	360-385-9400
Kitsap County Health District http://www.kitsappublichealth.org/	360-728-2235
Kittitas County Health Department http://www.co.Kittitas.wa.us/health/	509-962-7515
Klickitat County Health Department https://www.klickitatcounty.org/289/Public-Health	509-773-4565
Lincoln County Health Department https://www.co.lincoln.wa.us/public-health/	509-725-1001
Mason County Public Health and Human Services https://masoncountywa.gov/health/	360-427-9670 ext. 274
Northeast Tri-County Health District http://www.netchd.org/	509-684-2262
Okanogan County Public Health District https://okanogancounty.org/government/public_health/index.php	509-422-7140
Pacific County Department of Public Health & Human Services https://www.pacificcountyhealth.com/	360-875-9343
Public Health - Seattle & King County https://kingcounty.gov/en/dept/dph	206-296-4600
San Juan County Department of Health and Community Services https://www.sanjuancountywa.gov/1777/Health-Community-Services	360-378-4474

Local Health Jurisdiction	Phone Number
Skagit County Public Health https://www.skagitcounty.net/Departments/Health	360-416-1500
Skamania County Community Health https://www.skamaniacounty.org/departments-offices/community-health	509-427-3850
Snohomish County Health Department https://www.snohd.org	425-339-5200
Spokane Regional Health District https://srhd.org	509-324-1560
Tacoma-Pierce County Health Department https://tpchd.org/	253-649-1500
Thurston County Public Health and Social Services Department https://www.thurstoncountywa.gov/departments/public-health-and-social-services	360-867-2500
Wahkiakum County Department of Public Health and Human Services https://www.co.wahkiakum.wa.us/161/Public-Health-Human-Services	888-452-0326
Walla Walla County Department of Community Health https://dch.co.walla-walla.wa.us/	509-524-2650
Whitman County Public Health https://whitmancountypublichealth.org/	509-3326752
Whatcom County Health and Community Services https://www.whatcomcounty.us/4307/Health-Department	360-778-6000
Yakima Health District https://www.yakimacounty.us/2871/Health-District	509-575-4040

Appendix III: Resources & References

Resources

Centers for Disease Control and Prevention (CDC): http://www.cdc.gov

- ACIP Recommendations and Immunization Schedules: https://www.cdc.gov/vaccines/acip/recommendations.html
- Health Topics A-Z Index: https://www.cdc.gov/health-topics.html
- National Immunization Program: http://www.cdc.gov/vaccines
- Vaccine resources for HCPs: https://www.cdc.gov/vaccines/hcp/index.html
- Emerging Infectious Diseases: http://www.cdc.gov/ncidod/eid/
- Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings: https://www.cdc.gov/infectioncontrol/guidelines/isolation/index.html

Office of Superintendent of Public Instruction (OSPI): https://ospi.k12.wa.us

- Health Services A–Z Index of Health Topics
  http://www.k12.wa.us/HealthServices/Resources.aspx
- How to Respond: Injury and Illness at School (2016):
  https://ospi.k12.wa.us/sites/default/files/2023-08/injuryillness.pdf
- Bulletin 069-22: Blood Borne Pathogen Training (PDF):
  https://ospi.k12.wa.us/sites/default/files/2023-08/bulletin_069-22.pdf
- Bloodborne Pathogens Employee Training on HIV and Protection from Bloodborne Pathogens in the Workplace (2022, PPTX):
  https://ospi.k12.wa.us/sites/default/files/2023-08/ospi-bloodbornepathogens-8_2_22.pptx

Washington State Department of Health (DOH): http://www.doh.wa.gov

- Behavioral Health Resources and Recommendations: https://doh.wa.gov/emergencies/covid-19/health-care-providers/behavioral-health-resources
- Communicable Disease Epidemiology: https://doh.wa.gov/about-us/executive-offices/health-and-science/disease-control-and-health-statistics/communicable-disease-epidemiology
- Communicable Disease Reporting: https://doh.wa.gov/public-health-provider-resources/notifiable-conditions/list-notifiable-conditions
- Division of Disease Control and Health Statistics (DCHS): https://doh.wa.gov/about-us/executive-offices/health-and-science/disease-control-and-health-statistics
- Handwashing:
  - A poster showing proper handwashing is available in multiple languages. The poster is titled, "BE A GERM BUSTER WASH YOUR HANDS" and is available at:
    https://doh.wa.gov/sites/default/files/legacy/Documents/Pubs/130-012.pdf

    - Additional materials encouraging handwashing are available at: https://doh.wa.gov/you-and-your-family/illness-and-disease-z/flu/washyourhandsington
- Respiratory hygiene
    - A poster promoting respiratory hygiene is available in multiple languages. The poster is titled, "Cover Your Cough" and is available at: https://doh.wa.gov/public-health-healthcare-providers/emergency-preparedness/medicationhealth-care-centers/signs/cover-your-cough
- School and Child Care Immunization: https://doh.wa.gov/community-and-environment/schools/immunization
    - *Immunization Manual for Schools, Preschool and Child Care Centers (2023).* Available from Washington State Department of Health Website: https://doh.wa.gov/sites/default/files/2022-09/348-124_ImmunizationSchoolManual.pdf
- Schools webpage: https://doh.wa.gov/community-and-environment/schools

Washington State School Nurse Corps: https://ospi.k12.wa.us/student-success/health-safety/school-health-nursing-services/school-nurse-corps

- Online School Nurse Resource Guide: https://www.nwesd.org/snc/resource/
- School Health Services—A Guide Book for School Administrators, Nurses and School Personnel: https://resources.finalsite.net/images/v1704472148/esd105org/g5awcd8kcr6ip1ymsulo/STUDENT-HEALTHSERVICES-GUIDEBOOK2023.pdf

Other

American Academy of Pediatrics (AAP): http://www.aap.org

American Public Health Association (APHA): Control of Communicable Diseases Manual (2008, 19th ed) by Heymann, D. Available at: https://ccdm.aphapublications.org/doi/book/10.2105/CCDM.2745

Dermatology Online Atlas (includes pictures and rashes): http://www.dermis.net

Immunization Action Coalition: http://www.immunize.org

Medline: http://www.nlm.nih.gov/medlineplus

National Association of School Nurses (NASN): http://www.nasn.org

Occupational Safety and Health Administration (OSHA): http://www.osha.gov

School Nurse Organization of Washington (SNOW): https://snownurses.org

State of Washington Department of Labor and Industry (L&I): https://lni.wa.gov

- Bloodborne Pathogens. Available at: https://lni.wa.gov/safety-health/safety-topics/topics/bloodborne-pathogens#training-and-resources
- Administrative Policy Number ES.C.4.2 - Minors and Blood borne Pathogens in Non-medical Settings Available at: https://www.lni.wa.gov/workers-rights/_docs/esc4.2.pdf

References

Adams, L., & Starke, J. (2021). *Tuberculosis disease in children*. UpToDate. Retrieved on January 24, 2022, from https://www.uptodate.com/contents/tuberculosis-disease-in-children-epidemiology-clinical-manifestations-and-diagnosis

Agha, R. M., & Goldberg, M. B. (2022). *Shigella Infection: Clinical Manifestations and Diagnosis*. UpToDate. Retrieved from https://www.uptodate.com/contents/shigella-infection-epidemiology-clinical-manifestations-and-diagnosis

Albrecht, M. (2021a). *Clinical features of varicella-zoster virus infection: Chickenpox*. UpToDate. Retrieved January 8, 2022 from https://www.uptodate.com/contents/clinical-features-of-varicella-zoster-virus-infection-chickenpox

Albrecht, M. (2021b). *Epidemiology, clinical manifestations, and diagnosis of genital herpes simplex virus infection*. UpToDate. Retrieved January 22, 2022 from https://www.uptodate.com/contents/epidemiology-clinical-manifestations-and-diagnosis-of-genital-herpes-simplex-virus-infection

Albrecht, M., & Levin, M. (2021). *Epidemiology, clinical manifestations, and diagnosis of herpes zoster*. Retrieved January 15, 2022 from https://www.uptodate.com/contents/epidemiology-clinical-manifestations-and-diagnosis-of-herpes-zoster

Allen, U. D. (2014). Clostridium difficile in paediatric populations. *Paediatric Child Health, 19*(1), 43-54. PMID: 24627655; PMCID: PMC3938221.

American Academy of Pediatrics. (2015). *Tinea Infections (Ringworm, Athlete's Foot, Jock Itch)*. HealthyChildren.org. Retrieved January 25, 2024 from https://www.healthychildren.org/English/health-issues/conditions/skin/Pages/Tinea-Infections-Ringworm-Athletes-Foot-Jock-Itch.aspx

American Academy of Pediatrics. (2023*), Managing Infectious Diseases in Child Care and Schools, 6th ed.*, Elk Grove Village, IL. https://doi.org/10.1542/9781610026604

American Academy of Pediatrics Council on School Health (2016), *School Health: Policy and Practice, 7th ed.*, Elk Grove Village, IL. https://doi.org/10.1542/9781581108453

Aronson, M., & Auwaerter, P. (2021). *Infectious mononucleosis*. UpToDate. Retrieved January 16, 2022, from https://www.uptodate.com/contents/infectious-mononucleosis

Bachmann, L. (2021). *Urethritis in adult males*. UpToDate. Retrieved January 22, 2022, from https://www.uptodate.com/contents/urethritis-in-adults-and-adolescents

Baddour, L. (2021). *Impetigo*. UpToDate. Retrieved January 15, 2022, from https://www.uptodate.com/contents/impetigo

Baddour, L. M., & Harper, M. (2021). *Animal bites (dogs, cats, and other mammals): Evaluation and management*. UpToDate. Retrieved January 6, 2022 from https://www.uptodate.com/contents/animal-bites-dogs-cats-and-other-mammals-evaluation-and-management

Baddour, L. M., & Harper, M. (2024). *Human bites: Evaluation and management*. UpToDate. Retrieved January 6, 2022, from https://www.uptodate.com/contents/human-bites-evaluation-and-management

Barroso, L., & Pegram, P. (2021). *Clinical manifestations, diagnosis, and treatment of diphtheria*. UpToDate. Retrieved January 13, 2022 from https://www.uptodate.com/contents/clinical-manifestations-diagnosis-and-treatment-of-diphtheria

Bean, B., Moore, B. M, Sterner, B., Peterson, L. R., Gerding, D. N., Balfour Jr., H. H. (1982). Survival of influenza viruses on environmental surfaces. *Journal of Infectious Diseases, 146*, 47-51. https://doi.org/10.1093/infdis/146.1.47

Brankston, G., Gitterman, L., Hirji, Z., Camille, L., Gardam, M. Transmission of influenza A in human beings. *The Lancet Infectious Diseases, 7*(4), 257-265. https://doi.org/10.1016/S1473-3099(07)70029-4

Carrat, F., Vergu, E., Ferguson, N. M., Lemaitre, M., Cauchemez, S., Leach, S., Valleron, A. (2008). Time lines of infection and disease in human influenza: a review of volunteer challenge studies. *American Journal of Epidemiology, 167*, 775-785. https://doi.org/10.1093/aje/kwm375

Centers for Disease Control and Prevention. (2005). Guidelines for the investigation of contacts of persons with infectious tuberculosis; recommendations from the National Tuberculosis Controllers Association and CDC. *MMWR, 54*(15), 1-47. https://www.cdc.gov/mmwr/pdf/rr/rr5415.pdf

Centers for Disease Control and Prevention. (2017). *The Path of the Rabies Virus*. Retrieved January 30, 2024, from https://www.cdc.gov/rabies/transmission/body.html

Centers for Disease Control and Prevention. (2020a). *About Cytomegalovirus and Congenital CMV Infection*. Retrieved January 12, 2022, from https://www.cdc.gov/cmv/overview.html

Centers for Disease Control and Prevention. (2020b). *About Cytomegalovirus (CMV)*. Retrieved January 12, 2022, from https://www.cdc.gov/cmv/overview.html

Centers for Disease Control and Prevention. (2020c). *Hepatitis A*. Retrieved October 4, 2023, from https://www.cdc.gov/hepatitis/hav/index.htm

Centers for Disease Control and Prevention. (2020d). *Hepatitis B FAQs for Health Professionals*. Retrieved January 23, 2022, from https://www.cdc.gov/hepatitis/hbv/hbvfaq.htm

Centers for Disease Control and Prevention. (2021a). *Campylobacter (Campylobateriosis)*. Retrieved January 31, 2024, from https://www.cdc.gov/campylobacter/index.html

Centers for Disease Control and Prevention. (2021b). *Epidemiology and Prevention of Vaccine-Preventable Diseases*. Hall E., Wodi A.P., Hamborsky J., et al., eds. 14th ed. Washington, D.C. Public Health Foundation.

Centers for Disease Control and Prevention. (2021c). *STD Treatment Guidelines*. Retrieved April 13, 2023, from https://www.cdc.gov/std/treatment-guidelines/hiv.htm

Centers for Disease Control and Prevention. (2022a). *E. coli (Escherichia coli)*. Retrieved January 31, 2024, from https://www.cdc.gov/ecoli/index.html

Centers for Disease Control and Prevention. (2022b). *Haemophilus influenzae Disease (Including Hib). Retrieved November 6, 2023, from https://www.cdc.gov/hi-disease/index.html*

Centers for Disease Control and Prevention. (2022c). *HIV Risk and Prevention: Pre-Exposure Prophylaxis (PrEP)*. Retrieved January 26, 2022, from https://www.cdc.gov/hiv/risk/prep/index.html

Centers for Disease Control and Prevention. (2022d). *Meningitis*. Retrieved January 31, 2024, from https://www.cdc.gov/meningitis/index.html

Centers for Disease Control and Prevention. (2022e). *Parasites - Giardia*. Retrieved January 31, 2024, from https://www.cdc.gov/parasites/giardia/index.html

Centers for Disease Control and Prevention. (2022f). *Symptoms, Diagnosis, & Treatment | West Nile Virus*. Retrieved February 1, 2022, from https://www.cdc.gov/westnile/symptoms/index.html

Centers for Disease Control and Prevention. (2023a). *About Norovirus*. Retrieved January 31, 2024, from https://www.cdc.gov/norovirus/about/index.html

Centers for Disease Control and Prevention. (2023b). *People at Higher Risk of Flu Complications*. Retrieved October 10, 2023, from https://www.cdc.gov/flu/highrisk/index.htm

Centers for Disease Control and Prevention. (2023c). *Disease Burden of Flu*. Retrieved October 10, 2023, from https://www.cdc.gov/flu/about/burden/index.html

Centers for Disease Control and Prevention. (2024a). *Salmonella*. Retrieved January 31, 2024, from https://www.cdc.gov/salmonella/index.html

Centers for Disease Control and Prevention. (2024b). *Tetanus: For Clinicians*. Retrieved November 6, 2023, from https://www.cdc.gov/tetanus/clinicians.html

Cowling, B. J., Ip, D., Fang, V., Suntarattiwon, P., Olsen, S., Levy, J., Uyeki, T. Leung, G., Malik Peiris, J., Chotpitayasunondh, T., Nishiura, H., & Simmerman, J. (2013). Aerosol transmission is an important mode of influenza A virus spread. *Nature Communications, 4*, 1935. https://doi.org/10.1038/ncomms2922

Cox, N. J., & Subbarao, K. (1999). Influenza. *The Lancet, 354(9186)*, 1277-1288. https://doi.org/10.1016/S0140-6736(99)01241-6

Crews, J., & Nicholson, M. R. (2022). *Clostridioides difficile* Infection in Children: Clinical features and diagnosis. UpToDate. Retrieved September 26, 2022, from https://www.uptodate.com/contents/clostridioides-difficile-infection-in-children-clinical-features-and-diagnosis

Committee on Infectious Diseases, American Academy of Pediatrics, Kimberlin, D. W., Barnett, E. D., Lynfield, R., & Sawyer, M. H. (2021). *Red Book: 2021-2024 Report of the Committee on Infectious Diseases, 29th ed.*, Elk Grove Village, IL: American Academy of Pediatrics. Retrieved from 10.1542/9781610025782

Demmler-Harrison, G. (2021). *Overview of cytomegalovirus infections in children*. UpToDate. Retrieved January 11, 2022, from https://www.uptodate.com/contents/overview-of-cytomegalovirus-infections-in-children

Edwards, M. (2021). Rubella. UpToDate. Retrieved January 20, 2022, from https://www.uptodate.com/contents/rubella

Elston, D. M., & Kells, S. (2022). *Patient Education: Bedbugs (Beyond the Basics)*. UpToDate. Retrieved January 25, 2024, from https://www.uptodate.com/contents/bedbugs-beyond-the-basics

Feld, J. (2021). *Clinical manifestations, diagnosis, and treatment of acute hepatitis C virus infection in adults*. UpToDate. Retrieved January 15, 2022, from https://www.uptodate.com/contents/clinical-manifestations-diagnosis-and-treatment-of-acute-hepatitis-c-virus-infection-in-adults

Friedman, H., & Isaacs, S. (2021). *Variola virus (smallpox)*. UpToDate. Retrieved January 22, 2022, from https://www.uptodate.com/contents/variola-virus-smallpox

Gans, H., & Maldonado, Y. (2021). *Measles: Epidemiology and transmission*. UpToDate. Retrieved January 16, 2022, from https://www.uptodate.com/contents/measles-epidemiology-and-transmission

Ghanem, K. (2021). *Clinical manifestations and diagnosis of Neisseria gonorrhoeae infection in adults and adolescents*. UpToDate. Retrieved January 20, 2022, from https://www.uptodate.com/contents/clinical-manifestations-and-diagnosis-of-neisseria-gonorrhoeae-infection-in-adults-and-adolescents

Goldstein, A. O., & Goldstein, B. G. (2021a). *Pediculosis capitis*. UpToDate. Retrieved January 16, 2022, from https://www.uptodate.com/contents/pediculosis-capitis

Goldstein, A. O., & Goldstein, B. G. (2021b). *Pediculosis corporis*. UpToDate. Retrieved January 16, 2022, from https://www.uptodate.com/contents/4036

Goldstein, A. O., & Goldstein, B. G. (2021c). *Pediculosis pubis and pediculosis ciliaris*. UpToDate. Retrieved January 16, 2022, from https://www.uptodate.com/contents/pediculosis-pubis-and-pediculosis-ciliaris

Goldstein, A. O., & Goldstein, B. G. (2021d). *Scabies: Epidemiology, clinical features, and diagnosis*. UpToDate. Retrieved January 20, 2022, from https://www.uptodate.com/contents/scabies-epidemiology-clinical-features-and-diagnosis

Goldstein, A. O., & Goldstein, B. G. (2023). *Dermatophyte (tinea) infections*. UpToDate. Retrieved January 25, 2024, from https://www.uptodate.com/contents/dermatophyte-tinea-infections

Goldstein, B. G., Goldstein, A. O., & Morris-Jones, R. (2021). *Cutaneous warts (common, plantar, and flat warts)*. UpToDate. Retrieved January 24, 2022, from https://www.uptodate.com/contents/cutaneous-warts-common-plantar-and-flat-warts

Heymann, D. (2008). *Control of Communicable Diseases Manual, 19th ed.*, American Public Health Association, Washington, D.C.

Hicks, C., & Clement, M. (2021). *Syphilis: Epidemiology, pathophysiology, and clinical manifestations in patients without HIV*. UpToDate. Retrieved January 22, 2022, from https://www.uptodate.com/contents/syphilis-epidemiology-pathophysiology-and-clinical-manifestations-in-patients-without-hiv

Hsu, K. (2021). *Epidemiology of Chlamydia trachomatis infections*. UpToDate. Retrieved January 20, 2022, from https://www.uptodate.com/contents/epidemiology-of-chlamydia-trachomatis-infections

Ip, D. K. M., Lau, L. L. H., Chan, K. H., Fang, V. J., Leung, G. M., Peiris, M. J. S., Cowling, B. J. (2016). The Dynamic Relationship Between Clinical Symptomatology and Viral Shedding in Naturally Acquired Seasonal and Pandemic Influenza Virus Infections. *Clinical Infectious Diseases, 62*(4), 431-437. https://doi.org/10.1093/cid/civ909

Ip, D. K. M., Lau, L. L. H., Leung, N. H. L., Fang, V. J., Chan, K., Chu, D. K. C., Leung, G. M., Malik Peiris, J. S., Uyeki, T. M., Cowling, B. J. (2017). Viral Shedding and Transmission Potential of Asymptomatic and Paucisymptomatic Influenza Virus Infections in the Community. *Clinical Infectious Diseases, 64*(6), 736-742. https://doi.org/10.1093/cid/ciw841

Isaacs, S. (2021). *Molluscum contagiosum*. UpToDate. Retrieved January 20, 2022, from https://www.uptodate.com/contents/molluscum-contagiosum

Jacobs, D. (2021). *Conjunctivitis*. UpToDate. Retrieved January 10, 2022, from https://www.uptodate.com/contents/conjunctivitis

Johnston, C., & Wald, A. (2021). *Epidemiology, clinical manifestations, and diagnosis of herpes simplex virus type 1 infection*. UpToDate. Retrieved January 15, 2022, from https://www.uptodate.com/contents/epidemiology-clinical-manifestations-and-diagnosis-of-herpes-simplex-virus-type-1-infection

Jordan, J. (2021). *Clinical manifestations and diagnosis of parvovirus B19 infection*. UpToDate. Retrieved January 14, 2022, from https://www.uptodate.com/contents/clinical-manifestations-and-diagnosis-of-parvovirus-b19-infection

Kaplan, S. (2021a). *Bacterial meningitis in children older than one month: Clinical features and diagnosis*. UpToDate. Retrieved January 20, 2022 from https://www.uptodate.com/contents/bacterial-meningitis-in-children-older-than-one-month-clinical-features-and-diagnosis

Kaplan, S. (2021b). *Methicillin-resistant Staphylococcus aureus infections in children: Epidemiology and clinical spectrum*. UpToDate. Retrieved January 20, 2022 from https://www.uptodate.com/contents/methicillin-resistant-staphylococcus-aureus-infections-in-children-epidemiology-and-clinical-spectrum

Lau, L. L. H., Cowling, B. J., Fang, V. J., Chan, K., Lau, E. H. Y., Lipsitch, M. Cheng, C. K. Y., Houck, P. M., Uyeki, T. M., Peiris, J. S. M., Leung, G. M. (2010). Viral shedding and clinical illness in naturally acquired influenza virus infections. *The Journal of Infectious Diseases, 201*(10), 1509-1516. https://doi.org/10.1086/652241

Leder, K., & Weller, P. F. (2021). *Enterobiasis (pinworm) and trichuriasis (whipworm)*. UpToDate. Retrieved January 20, 2022, from https://www.uptodate.com/contents/enterobiasis-pinworm-and-trichuriasis-whipworm

Michigan Bed Bug Working Group. (2010). *Bed Bugs: What Schools Need to Know*. Michigan Department of Health & Human Services. https://www.michigan.gov/emergingdiseases/home/bed-bugs

Munoz, F. (2021). *Seasonal influenza in children: Clinical features and diagnosis*. UpToDate. Retrieved January 16, 2022, from https://www.uptodate.com/contents/seasonal-influenza-in-children-clinical-features-and-diagnosis

National Federation of State High School Associations, & Sports Medicine Advisory Committee. (2018). Sports-related skin infections position statement and guidelines. Retrieved October 9, 2023, from https://www.nfhs.org/media/1014740/sports_related_skin_infections_position_statement_and_guidelines_-final-april-2018.pdf

National Institutes of Health. (2019). *The science is clear: with HIV, undetectable equals untransmittable*. Retrieved April 12, 2023, from https://www.nih.gov/news-events/news-releases/science-clear-hiv-undetectable-equals-untransmittable

Neuzil, K. M., Zhu, W., Griffin, M. R., Edwards, K. M., Thompson, J. M., Tollefson, S. J. Wright, P. F. (2002). Burden of interpandemic influenza in children younger than 5 years: a 25-year prospective study. *The Journal of Infectious Diseases, 185*(2),147-152. https://doi.org/10.1086/338363

Olson, J. F., Eaton, M., Kells, S. A., Morin, V., & Wang, C. (2013). Cold tolerance of bed bugs and practical recommendations for control. *Journal of Economic Entomology, 106*(6), 2433-2441. https://doi.org/10.1603/ec13032

Palefsky, J. (2021). *Human papillomavirus infections: Epidemiology and disease associations*. UpToDate. Retrieved January 22, 2022 from https://www.uptodate.com/contents/human-papillomavirus-infections-epidemiology-and-disease-associations

Pappas, D. (2021). *The common cold in children: Clinical features and diagnosis*. UpToDate. Retrieved January 10, 2022 from https://www.uptodate.com/contents/the-common-cold-in-children-clinical-features-and-diagnosis

Peltola, V., Ziegler, T., Ruuskanen, O. (2003). Influenza A and B virus infections in children. *Clinical Infectious Diseases, 36*(3), 299-305. https://doi.org/10.1086/345909

Pentima, C. (2021). *Viral meningitis: Epidemiology, pathogenesis, and etiology in children*. UpToDate. Retrieved January 20, 2022 from https://www.uptodate.com/contents/viral-meningitis-in-children-epidemiology-pathogenesis-and-etiology

Quirós-Tejeira, R. (2023). *Overview of hepatitis A virus infection in children*. UpToDate. Retrieved January 30, 2024, from https://www.uptodate.com/contents/overview-of-hepatitis-a-virus-infection-in-children

Romero, J. (2021). *Hand, foot, and mouth disease and herpangina*. UpToDate. Retrieved January 14, 2022, from https://www.uptodate.com/contents/hand-foot-and-mouth-disease-and-herpangina

Quirós-Tejeira, R. E. (2023). *Overview of Hepatitis A Infection in Children*. UpToDate. Retrieved January 30, 2024, from https://www.uptodate.com/contents/overview-of-hepatitis-a-virus-infection-in-children

Sax, P. (2021). *Acute and early HIV infection: Clinical manifestations and diagnosis*. UpToDate. Retrieved January 15, 2022, from https://www.uptodate.com/contents/acute-and-early-hiv-infection-treatment

Schnirring, L. (2018). *Study confirms flu likely spreads by aerosols, not just coughs, sneezes*. University of Minnesota: CIDRAP News. https://www.cidrap.umn.edu/influenza-general/study-confirms-flu-likely-spreads-aerosols-not-just-coughs-sneezes

Silvennoinen, H., Peltola, V., Lehtinen, P., Vainionpää, R., Heikkinen, T. (2009). Clinical presentation of influenza in unselected children treated as outpatients. *The Pediatric Infectious Disease Journal, 28*(5), 372-375. https://10.1097/INF.0b013e318191eef7

Sobel, J. (2021). *Approach to females with symptoms of vaginitis*. UpToDate. Retrieved January 22, 2022, from https://www.uptodate.com/contents/vaginitis-in-adults-initial-evaluation

Sobel, J., & Mitchell, C. (2021). *Trichomoniasis*. UpToDate. Retrieved January 22, 2022, from https://www.uptodate.com/contents/trichomoniasis-clinical-manifestations-and-diagnosis

Stevens, D., & Baddour, L. (2021). *Necrotizing soft tissue infections*. UpToDate. Retrieved January 22, 2022, from https://www.uptodate.com/contents/necrotizing-soft-tissue-infections

Tellier, R. (2009). Aerosol transmission of influenza A virus: a review of new studies. Journal of the Royal Society Interface, 6(6), 783-790. https://doi.org/10.1098/rsif.2009.0302.focus

Teo, E., & Lok, A. (2021). *Epidemiology, transmission, and prevention of hepatitis B virus infection*. UpToDate. Retrieved January 14, 2022, from https://www.uptodate.com/contents/epidemiology-transmission-and-prevention-of-hepatitis-b-virus-infection

Thwaites, L. (n.d.) *Tetanus*. UpToDate. Retrieved January 22, 2022, from https://www.uptodate.com/contents/tetanus

UpToDate. (n.d.). *Society guideline links: Tick-borne infections (Lyme disease, ehrlichiosis, anaplasmosis, babesiosis, and Rocky Mountain spotted fever)*. Retrieved from https://www.uptodate.com/contents/society-guideline-links-tick-borne-infections-lyme-disease-ehrlichiosis-anaplasmosis-babesiosis-and-rocky-mountain-spotted-fever

U.S. Food & Drug Administration. (2023). Section 201.314: Labeling of drug preparations containing salicylates. *Code of Federal Regulations Title 21, Vol. 4*. Retrieved November 7, 2023, from https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?fr=201.314

Uyeki, T. M., Hui, D. S., Zambon, M., Wentworth, D. E. (2022). Influenza. *The Lancet, 400*(10353), 693-706. https://doi.org/10.1016/S0140-6736(22)00982-5

Wald, E. (2021). *Group A streptococcal tonsillopharyngitis in children and adolescents: Clinical features and diagnosis*. UpToDate. Retrieved January 22, 2022, from https://www.uptodate.com/contents/group-a-streptococcal-tonsillopharyngitis-in-children-and-adolescents-clinical-features-and-diagnosis

Wang, Y., Huang, Y., Chang, L., Kao, H., Lin, P., Huang, C., Lin, T. (2003). Clinical characteristics of children with influenza A virus infection requiring hospitalization. *Journal of Microbiology, Immunology, and Infection, 36*(2), 111-116. PMID: 12886962

Washington Department of Health. (n.d.). *Bed Bugs*. Retrieved January 30, 2024, from https://doh.wa.gov/community-and-environment/pests/bed-bugs

Washington Department of Health. (2022). *Guidelines for Reporting Tuberculosis [PDF]*. Retrieved September 25, 2023, from https://doh.wa.gov/sites/default/files/2022-12/343-235-Guideline-Tuberculosis.pdf?uid=6511ccd15af2d

Washington Department of Health. (2023). *Guidance to Prevent and Respond to COVID-19 in K-12 Schools and Child Cares*. Retrieved from https://doh.wa.gov/sites/default/files/2022-10/821165-K12SchoolsChildCare2022-2023.pdf

Washington State University. (2011). *Pest Press: Bed Bugs.* Issue 4. Retrieved from https://s3.wp.wsu.edu/uploads/sites/415/2014/12/PP4-Bed-bugs-REVISED.pdf

World Health Organization. (2021). *Hepatitis C*. Retrieved January 15, 2022, from https://www.who.int/news-room/fact-sheets/detail/hepatitis-c

Yeh, S., & Mink, C. (2021). *Pertussis infection in infants and children: Clinical features and diagnosis*. UpToDate. Retrieved January 20, 2022, from https://www.uptodate.com/contents/pertussis-infection-in-infants-and-children-clinical-features-and-diagnosis

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