Communicable and Acute Illness: Identification and Management

NAEYC Standards Chapter Links

- #1 a, b, and c: Promoting child development and learning
- #2 a, b, and c: Building family and community relationships
- #3 a, c, and d: Observing, documenting, and assessing to support young children and families

Learning Objectives

After studying this chapter, you should be able to:

- Discuss why it is important for teachers to be knowledgeable about children’s communicable and acute illnesses.
- Explain how communicable illnesses such as chickenpox, pinkeye, impetigo, and giardia are spread and identify appropriate control measures.
- Describe the teachers’ role in addressing common acute childhood illnesses.

Because young children are especially vulnerable to a variety of communicable and acute illnesses, classroom teachers must be prepared to identify and implement policies and practices designed to limit their spread. Teachers can best prepare themselves for this role by becoming familiar with the signs and symptoms of common childhood illnesses and the precautionary measures appropriate for each. This knowledge can be useful for establishing program guidelines, creating meaningful lessons for children, and communicating important health information with families.

symptoms – changes in the body or its functions that are experienced by the affected individual.
Communicable Childhood Illnesses

Protecting children’s health in group settings requires teachers to have a sound understanding of common communicable illnesses—what causes them, how they are transmitted, and how they can be controlled. Their knowledge of childhood illnesses and ability to implement infection control procedures, including hand washing and disinfection, are important management skills. Table 6–1 provides brief descriptions of communicable illnesses that young children commonly experience.

Teachers should also be familiar with local public health policies that specify which communicable illnesses must be reported. Notifying health officials of existing cases enables them to monitor communities for potential outbreaks. They may also be able to provide additional information about an illness that teachers can share with families.

Reflective Thoughts

Teachers recognize the importance of addressing issues of diversity in their programs. However, little is often understood about how individuals from various backgrounds—cultures, recent immigrants, homeless families—view the concepts of health, illness, and traditional Western medicine. Notable differences between mainstream values, beliefs, and practices and those held by a particular group are common. Thus, teachers must make an effort to learn more about individual families and their unique beliefs and priorities in order to best serve children’s health needs. Excellent resources are available on the National Center for Cultural Competence website (http://www11.georgetown.edu/research/gucchd/nccc). Take time to explore the information and self-assessment tools provided.
<table>
<thead>
<tr>
<th>Communicable Illness</th>
<th>Signs and Symptoms</th>
<th>Infectious Agent</th>
<th>Methods of Transmission</th>
<th>Incubation Period</th>
<th>Length of Communicability</th>
<th>Control Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Airborne Transmitted Illnesses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chickenpox</td>
<td>Slight fever, irritability, cold-like symptoms. Red rash that develops blister-like head, scabs later. Most abundant on covered parts of body, e.g., chest, back, neck, forearms.</td>
<td>Virus</td>
<td>Airborne through contact with secretions from the respiratory tract. Transmission from contact with blisters less common.</td>
<td>2–3 weeks after exposure</td>
<td>2–3 days prior to the onset of symptoms until 5–6 days after first eruptions. Scabs are not contagious.</td>
<td>Specific control measures: (1) Exclusion of sick children. (2) Practice good personal hygiene, especially careful hand washing. Children can return to group care when all blisters have formed a dry scab (approximately 1 week). Immunization is now available.</td>
</tr>
<tr>
<td>Common Cold</td>
<td>Highly contagious infection of the upper respiratory tract accompanied by slight fever, chills, runny nose, fatigue, muscle ache and headaches. Onset may be sudden.</td>
<td>Virus</td>
<td>Airborne through contact with secretions from the respiratory tract, e.g., coughs, sneezes, eating utensils, etc.</td>
<td>12–72 hours</td>
<td>About 1 day before onset of symptoms to 2–3 days after acute illness.</td>
<td>Prevention through education and good personal hygiene. Avoid exposure. Exclude first day or two. Antibiotics not effective against viruses. Avoid aspirin products (possible link to Reye’s syndrome). Observe for complications, e.g., earaches, bronchitis, croup, pneumonia.</td>
</tr>
<tr>
<td>Fifth disease</td>
<td>Appearance of bright red rash on face, especially cheeks.</td>
<td>Virus</td>
<td>Airborne contact with secretions from the nose/mouth of infected person.</td>
<td>4–14 days</td>
<td>Prior to appearance of rash; probably not contagious after rash develops.</td>
<td>Children don’t need to be excluded once rash appears. Frequent hand washing; frequent washing/disinfecting of toys/surfaces. Use care when handling tissues/nasal secretions.</td>
</tr>
<tr>
<td>Disease Description</td>
<td>Pathogen</td>
<td>Mode of Transmission</td>
<td>Incubation Period</td>
<td>Period of Infection</td>
<td>Control Measures</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>----------</td>
<td>----------------------</td>
<td>-------------------</td>
<td>--------------------</td>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Haemophilus influenzae Type b (Hib)</strong></td>
<td>Bacteria</td>
<td>Airborne via secretions of the respiratory tract (nose, throat). Some children are carriers and may/may not have symptoms.</td>
<td>2–4 days</td>
<td>Throughout acute phase; as long as organism is present. Noncommunicable 36–48 hours after treatment with antibiotics.</td>
<td>Identify and exclude sick children. Treatment with antibiotics 3–4 days before returning to group care. Notify families of exposed children to contact their physician. Immunize children. Practice good hand washing techniques; sanitize contaminated objects.</td>
<td></td>
</tr>
<tr>
<td><strong>Measles (Rubeola)</strong></td>
<td>Virus</td>
<td>Airborne through coughs, sneezes, and contact with contaminated articles.</td>
<td>8–13 days; rash develops approximately 14 days after exposure</td>
<td>From beginning of symptoms until 4 days after rash appears.</td>
<td>Most effective control method is immunization. Good personal hygiene, especially hand washing and covering coughs. Exclude child for at least 4 days after rash appears.</td>
<td></td>
</tr>
<tr>
<td><strong>Meningitis</strong></td>
<td>Bacteria</td>
<td>Airborne through coughs, nasal secretions; direct contact with saliva/nasal discharges.</td>
<td>Varies with the infecting organism; 2–4 days average</td>
<td>Throughout acute phase; noncommunicable after antibiotic treatment.</td>
<td>Encourage immunization. Exclude child from school until medical treatment is completed. Use universal precautions when handling saliva/nasal secretions, frequent hand washing, and disinfecting of toys/surfaces.</td>
<td></td>
</tr>
<tr>
<td><strong>Mononucleosis</strong></td>
<td>Virus</td>
<td>Airborne; also direct contact with saliva of an infected person.</td>
<td>2–4 weeks for children; 4–6 weeks for adults</td>
<td>Unknown. Organisms may be present in oral secretions for as long as 1 year following illness.</td>
<td>None known. Child should be kept home until over the acute phase (6–10 days). Use frequent hand washing and careful disposal of tissues after coughing or blowing nose.</td>
<td></td>
</tr>
</tbody>
</table>

(continued)
### Table 6-1 Common Communicable Childhood Illnesses (continued)

<table>
<thead>
<tr>
<th>Communicable Illness</th>
<th>Signs and Symptoms</th>
<th>Infectious Agent</th>
<th>Methods of Transmission</th>
<th>Incubation Period</th>
<th>Length of Communicability</th>
<th>Control Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Airborne Transmitted Illnesses (continued)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mumps</strong></td>
<td>Sudden onset of fever with swelling of the salivary glands.</td>
<td>Virus</td>
<td>Airborne through coughs and sneezes; direct contact with oral secretions of infected persons.</td>
<td>12–26 days</td>
<td>6–7 days prior to the onset of symptoms until swelling in the salivary glands is gone (7–9 days).</td>
<td>Immunization provides permanent protection. Peak incidence is in winter and spring. Exclude children from school or group settings until all symptoms have disappeared.</td>
</tr>
<tr>
<td><strong>Roseola Infantum</strong> (6–24 mos.)</td>
<td>Most common in the spring and fall. Fever rises abruptly (102°F–105°F) and lasts 3–4 days; loss of appetite, listlessness, runny nose, rash on trunk, arms, and neck lasting 1–2 days.</td>
<td>Virus</td>
<td>Person to person; method unknown.</td>
<td>10–15 days</td>
<td>1–2 days before onset to several days following fading of the rash.</td>
<td>Exclude from school or group care until rash and fever are gone.</td>
</tr>
<tr>
<td><strong>Rubella (German Measles)</strong></td>
<td>Mild fever; rash begins on face and neck and rarely lasts more than 3 days. May have arthritis-like discomfort and swelling in joints.</td>
<td>Virus</td>
<td>Airborne through contact with respiratory secretions, e.g., coughs, sneezes.</td>
<td>4–21 days</td>
<td>From one week prior to 5 days following onset of the rash.</td>
<td>Immunization offers permanent protection. Children must be excluded from school for at least 7 days after appearance of rash.</td>
</tr>
<tr>
<td><strong>Streptococcal Infections (strep throat, scarlatina, rheumatic fever)</strong></td>
<td>Sudden onset. High fever accompanied by sore, red throat; may also have nausea, vomiting, headache,</td>
<td>Bacteria</td>
<td>Airborne via droplets from coughs or sneezes. May also be transmitted by food and raw milk.</td>
<td>1–4 days</td>
<td>Throughout the illness and for approximately 10 days afterward, unless treated with antibiotics.</td>
<td>Exclude child with symptoms. Antibiotic treatment is essential. Avoid crowding in classrooms. Practice frequent hand washing,</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>Many people have no symptoms. Active disease causes productive cough, weight loss, fatigue, loss of appetite, chills, night sweats.</td>
<td>Bacteria</td>
<td>Airborne via coughs or sneezes.</td>
<td>2–3 months</td>
<td>As long as disease is untreated; usually noncontagous after 2–3 weeks on medication.</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
</tbody>
</table>

**Blood-Borne Transmitted Illnesses**

<table>
<thead>
<tr>
<th>Acquired Immuno-deficiency Syndrome (AIDS)</th>
<th>Flu-like symptoms, including fatigue, weight loss, enlarged lymph glands, persistent cough, fever, and diarrhea.</th>
<th>Virus</th>
<th>Children acquire virus when born to infected mothers, from contaminated blood transfusions, and possibly from breast milk of infected mothers. Adults acquire the virus via sexual transmission, contaminated drug needles, and blood transfusions.</th>
<th>6 weeks to 8 years</th>
<th>Lifetime</th>
</tr>
</thead>
</table>

Medical treatment eliminates communicability within 36 hours. Can develop rheumatic fever or become a carrier if not treated. Educating children, and careful supervision of food handlers.

TB skin testing, especially babies and young children if there has been contact with an infected person. Seek prompt diagnosis and treatment if experiencing symptoms; complete drug therapy. Cover coughs/sneezes. Practice good hand washing.
### Table 6-1 Common Communicable Childhood Illnesses (continued)

<table>
<thead>
<tr>
<th>Communicable Illness</th>
<th>Signs and Symptoms</th>
<th>Infectious Agent</th>
<th>Methods of Transmission</th>
<th>Incubation Period</th>
<th>Length of Communicability</th>
<th>Control Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Blood Borne Transmitted Illnesses (continued)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>Slow onset; loss of appetite, nausea, vomiting, abdominal pain, and jaundice. May also be asymptomatic.</td>
<td>Virus</td>
<td>Through contact with blood/body fluids containing blood.</td>
<td>45–180 days; average 60–80 days</td>
<td>Varies; some persons are lifetime carriers.</td>
<td>Immunization is preferable. Use universal precautions when handling any blood/body fluids; use frequent hand washing.</td>
</tr>
<tr>
<td><strong>Contact (Direct and Indirect) Transmitted Illnesses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conjunctivitis (Pinkeye)</td>
<td>Redness of the white portion (conjunctiva) of the eye and inner eyelid, swelling of the lids, yellow discharge from eyes, and itching.</td>
<td>Bacteria or virus</td>
<td>Direct contact with discharge from eyes or upper respiratory tract of an infected person; through contaminated fingers and objects, e.g., tissues, washcloths, towels.</td>
<td>1–3 days</td>
<td>Throughout active infection; several days up to 2–3 weeks.</td>
<td>Antibiotic treatment. Exclude child for 24 hours after medication is started. Frequent hand washing and disinfection of toys/surfaces is necessary.</td>
</tr>
<tr>
<td>Cytomegalovirus (CMV)</td>
<td>Often no symptoms in children under 2 yrs.; sore throat, fever, fatigue in older children. High risk of fetal damage if mother is infected during pregnancy.</td>
<td>Virus</td>
<td>Person to person contact with body fluids, e.g., saliva, blood, urine, breast milk, in utero.</td>
<td>Unknown; may be 4–8 weeks</td>
<td>Virus present (in saliva, urine) for months following infection.</td>
<td>No need to exclude children. Always wash hands after changing diapers or contact with saliva. Avoid kissing children’s mouths or sharing eating utensils. Practice careful hand washing with children; wash/disinfect toys and surfaces frequently.</td>
</tr>
<tr>
<td>Hand, Foot, and Mouth Disease</td>
<td>Affects children under 10 yrs. Onset of fever, followed by blistered sores in</td>
<td>Virus</td>
<td>Person to person through direct contact with saliva, nasal</td>
<td>3–6 days</td>
<td>7–10 days</td>
<td>Exclude sick children for several days. Practice frequent hand washing, especially after changing</td>
</tr>
</tbody>
</table>

**asymptomatic**—having no symptoms.
<table>
<thead>
<tr>
<th>Disease</th>
<th>Manifestations</th>
<th>Etiology</th>
<th>Mode of Transmission</th>
<th>Incubation Period</th>
<th>Incubation Notes</th>
<th>Control Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herpes Simplex (cold sores)</td>
<td>Clear blisters develop on face, lips, and other body parts that crust and heal within a few days.</td>
<td>Virus</td>
<td>Direct contact with saliva, on hands, or sexual contact.</td>
<td>Up to 2 weeks</td>
<td>Virus remains in saliva for as long as 7 weeks following recovery.</td>
<td>No specific control. Frequent hand washing. Child does not have to be excluded from school.</td>
</tr>
<tr>
<td>Impetigo</td>
<td>Infection of the skin forming crusty, moist lesions usually on the face, ears, and around the nose. Highly contagious. Common among children.</td>
<td>Bacteria</td>
<td>Direct contact with discharge from sores; indirect contact with contaminated articles of clothing, tissues, etc.</td>
<td>2–5 days; may be as long as 10 days</td>
<td>Until treated with antibiotics and all lesions are healed.</td>
<td>Exclude from group settings until lesions have been treated with antibiotics for 24–48 hours. Cover areas with bandage until treated.</td>
</tr>
<tr>
<td>Lice (head)</td>
<td>Lice are seldom visible to the naked eye. White nits (eggs) are visible on hair shafts. The most obvious symptom is itching of the scalp, especially behind the ears and at the base of the neck.</td>
<td>Head louse</td>
<td>Direct contact with infected persons or with their personal articles, e.g., hats, hair brushes, combs, or clothing. Lice can survive for 2–3 weeks on bedding, carpet, furniture, car seats, clothing, etc.</td>
<td>Nits hatch in 1 week and reach maturity within 8–10 days</td>
<td>While lice remain alive on infested persons or clothing; until nits have been destroyed.</td>
<td>Infested children should be excluded from group settings until treated. Hair should be washed with a special medicated shampoo and rinsed with a vinegar/water solution (any concentration will work) to ease removal of all nits (using a fine-toothed comb). Heat from a hair dryer also helps to destroy eggs. All friends and family should be carefully checked. Thoroughly clean child’s environment; vacuum carpets/upholstery, wash/dry or dry clean bedding, clothing, hairbrushes. Seal nonwashable items in plastic bag for 2 weeks.</td>
</tr>
</tbody>
</table>

(continued)
### Table 6-1 Common Communicable Childhood Illnesses (continued)

<table>
<thead>
<tr>
<th>Communicable Illness</th>
<th>Signs and Symptoms</th>
<th>Infectious Agent</th>
<th>Methods of Transmission</th>
<th>Incubation Period</th>
<th>Length of Communicability</th>
<th>Control Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ringworm</strong></td>
<td>An infection of the scalp, skin, or nails. Causes flat, spreading, oval-shaped lesions that may become dry and scaly or moist and crusted. When it is present on the feet it is commonly called athlete’s foot. Infected nails may become discolored, brittle, or chalky or they may disintegrate.</td>
<td><strong>Fungus</strong></td>
<td>Direct or indirect contact with infected persons, their personal items, showers, swimming pools, theater seats, etc. Dogs and cats may also be infected and transmit it to children or adults.</td>
<td>4–10 days (unknown for athlete’s foot)</td>
<td>As long as lesions are present.</td>
<td>Exclude children from gyms, pools, or activities where they are likely to expose others. May return to group care following treatment with a fungicidal ointment. All shared areas, such as pools and showers, should be thoroughly cleansed with a fungicide.</td>
</tr>
<tr>
<td><strong>Rocky Mountain Spotted Fever</strong></td>
<td>Onset usually abrupt; fever (101°F–104°F); joint and muscle pain, severe nausea and vomiting, and white coating on tongue. Rash appears on 2nd to 5th day over forehead, wrist, and ankles; later covers entire body. Can be fatal if untreated.</td>
<td><strong>Bacteria</strong></td>
<td>Indirect transmission: tick bite.</td>
<td>2–14 days; average 7 days</td>
<td>Not contagious from person to person.</td>
<td>Prompt removal of ticks; not all ticks cause illness. Administration of antibiotics. Use insect repellent on clothes when outdoors.</td>
</tr>
<tr>
<td>Illness</td>
<td>Characteristics</td>
<td>Pathogen</td>
<td>Incubation Period</td>
<td>Duration to Symptoms Resolving</td>
<td>Control Measures</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>---------------------------</td>
<td>-------------------</td>
<td>-------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Scabies</td>
<td>Characteristic burrows or linear tunnels under the skin, especially between the</td>
<td>Parasite</td>
<td>Several days to 2-4 weeks</td>
<td>Until all mites and eggs are</td>
<td>Children should be excluded from school or group care until treated. Affected</td>
<td></td>
</tr>
<tr>
<td></td>
<td>fingers and around the wrists, elbows, waist, thighs, and buttocks. Causes intense</td>
<td></td>
<td></td>
<td>destroyed.</td>
<td>persons should bathe with prescribed soap and carefully launder all bedding and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>itching.</td>
<td></td>
<td></td>
<td></td>
<td>clothing. All contacts of the infected person should be notified.</td>
<td></td>
</tr>
<tr>
<td>Tetanus</td>
<td>Muscle spasms and stiffness, especially in the muscles around the neck and mouth.</td>
<td>Bacteria</td>
<td>4 days to 2 weeks</td>
<td>Not contagious.</td>
<td>Immunization every 8-10 years affords complete protection.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Can lead to convulsions, inability to breathe, and death.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Fecal/Oral Transmitted Illnesses**

<table>
<thead>
<tr>
<th>Illness</th>
<th>Characteristics</th>
<th>Pathogen</th>
<th>Incubation Period</th>
<th>Duration of Symptoms Resolving</th>
<th>Control Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dysentery</td>
<td>Sudden onset of vomiting; diarrhea, may be accompanied by high fever, headache, abdominal pain.</td>
<td>Bacteria</td>
<td>1-7 days</td>
<td>Variable; may last up to 4 weeks or longer in the carrier state.</td>
<td>Exclude child during acute illness. Careful hand washing after bowel movements.</td>
</tr>
<tr>
<td>(Shigellosis)</td>
<td>Stools may contain blood, pus, or mucus. Can be fatal in young children.</td>
<td></td>
<td></td>
<td></td>
<td>Proper disposal of human feces; control of flies. Strict adherence to sanitary</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>procedures for food preparation.</td>
</tr>
<tr>
<td>E. coli</td>
<td>Diarrhea, often bloody.</td>
<td>Bacteria</td>
<td>3-4 days; can be as long as 10 days</td>
<td>For duration of diarrhea; usually several days.</td>
<td>Exclude infected children until no diarrhea; practice frequent hand washing, especially after toileting and before preparing food. (continued)</td>
</tr>
</tbody>
</table>
### Table 6–1  Common Communicable Childhood Illnesses (continued)

<table>
<thead>
<tr>
<th>Communicable Illness</th>
<th>Signs and Symptoms</th>
<th>Infectious Agent</th>
<th>Methods of Transmission</th>
<th>Incubation Period</th>
<th>Length of Communicability</th>
<th>Control Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fecal/Oral Transmitted Illnesses (continued)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encephalitis</td>
<td>Sudden onset of headache, high fever, convulsions, vomiting, confusion, neck and back stiffness, tremors, and coma.</td>
<td>Virus</td>
<td>Indirect spread by bites from disease-carrying mosquitoes; in some areas transmitted by tick bites.</td>
<td>5–15 days</td>
<td>Not contagious.</td>
<td>Spraying of mosquito breeding areas and use of insect repellents; public education.</td>
</tr>
<tr>
<td>Giardiasis</td>
<td>Many persons are asymptomatic. Typical symptoms include chronic diarrhea, abdominal cramping, bloating, pale and foul-smelling stools, weight loss, and fatigue.</td>
<td>Parasite (protozoa)</td>
<td>Fecal-oral transmission; through contact with infected stool (e.g., diaper changes, helping child with soiled underwear), poor hand washing, passed from hands to mouth (toys, food). Also transmitted through contaminated water sources.</td>
<td>7–10 days average; can be as long as 5–25 days</td>
<td>As long as parasite is present in the stool.</td>
<td>Exclude children until diarrhea ends. Scrupulous hand washing before eating, preparing food, and after using the bathroom. Maintain sanitary conditions in bathroom areas.</td>
</tr>
<tr>
<td>Hepatitis (Infectious; Type A)</td>
<td>Fever, fatigue, loss of appetite, nausea, abdominal pain (in region of liver). Illness may be accompanied by yellowing of the skin and eyeballs (jaundice) in adults, but not always in children. A cute onset.</td>
<td>Virus</td>
<td>Fecal-oral route. Also spread via contaminated food, water, milk, and objects.</td>
<td>10–50 days (average range 25–30 days)</td>
<td>7–10 days prior to onset of symptoms to not more than 7 days after onset of jaundice.</td>
<td>Exclude from group settings a minimum of 1 week following onset. Special attention to careful hand washing after going to the bathroom and before eating is critical following an outbreak. Report disease incidents to public health authorities. Immunoglobulin (IG) recommended for protection of close contacts.</td>
</tr>
<tr>
<td><strong>Pinworms</strong></td>
<td><strong>Pinworms</strong></td>
<td><strong>Pinworms</strong></td>
<td><strong>Pinworms</strong></td>
<td><strong>Pinworms</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Irritability, and itching of the rectal area. Common among young children. Some children have no symptoms.</strong></td>
<td><strong>Parasite; not contagious from animals.</strong></td>
<td><strong>Infectious eggs are transferred from person to person by contaminated hands (oral-fecal route). Indirectly spread by contaminated bedding, food, clothing, swimming pool.</strong></td>
<td><strong>Life cycle of the worm is 3–6 weeks; persons can also re-infect themselves.</strong></td>
<td><strong>2–8 weeks or as long as a source of infection remains present.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Parasite; not contagious from animals.</strong></td>
<td><strong>Infectious eggs are transferred from person to person by contaminated hands (oral-fecal route). Indirectly spread by contaminated bedding, food, clothing, swimming pool.</strong></td>
<td><strong>Life cycle of the worm is 3–6 weeks; persons can also re-infect themselves.</strong></td>
<td><strong>2–8 weeks or as long as a source of infection remains present.</strong></td>
<td><strong>Infected children must be excluded from school until treated with medication; may return after initial dose. All infected and non-infected family members must be treated at one time. Frequent hand washing is essential; discourage nail biting or sucking of fingers. Daily baths and change of linen are necessary. Disinfect school toilet seats and sink handles at least once a day. Vacuum carpeted areas daily. Eggs are also destroyed when exposed to temperatures over 132°F. Education and good personal hygiene are vital to control.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2–8 weeks or as long as a source of infection remains present.</strong></td>
<td><strong>Parasite; not contagious from animals.</strong></td>
<td><strong>Infectious eggs are transferred from person to person by contaminated hands (oral-fecal route). Indirectly spread by contaminated bedding, food, clothing, swimming pool.</strong></td>
<td><strong>Life cycle of the worm is 3–6 weeks; persons can also re-infect themselves.</strong></td>
<td><strong>2–8 weeks or as long as a source of infection remains present.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Infected children must be excluded from school until treated with medication; may return after initial dose. All infected and non-infected family members must be treated at one time. Frequent hand washing is essential; discourage nail biting or sucking of fingers. Daily baths and change of linen are necessary. Disinfect school toilet seats and sink handles at least once a day. Vacuum carpeted areas daily. Eggs are also destroyed when exposed to temperatures over 132°F. Education and good personal hygiene are vital to control.</strong></td>
<td><strong>Infected children must be excluded from school until treated with medication; may return after initial dose. All infected and non-infected family members must be treated at one time. Frequent hand washing is essential; discourage nail biting or sucking of fingers. Daily baths and change of linen are necessary. Disinfect school toilet seats and sink handles at least once a day. Vacuum carpeted areas daily. Eggs are also destroyed when exposed to temperatures over 132°F. Education and good personal hygiene are vital to control.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Salmonellosis</strong></td>
<td><strong>Abdominal pain and cramping, sudden fever, severe diarrhea (may contain blood), nausea and vomiting lasts 5–7 days.</strong></td>
<td><strong>Bacteria</strong></td>
<td><strong>Fecal-oral transmission: via dirty hands. Also contaminated food (especially improperly cooked poultry, milk, eggs), water supplies, and infected animals.</strong></td>
<td><strong>12–36 hours</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Abdominal pain and cramping, sudden fever, severe diarrhea (may contain blood), nausea and vomiting lasts 5–7 days.</strong></td>
<td><strong>Bacteria</strong></td>
<td><strong>Fecal-oral transmission: via dirty hands. Also contaminated food (especially improperly cooked poultry, milk, eggs), water supplies, and infected animals.</strong></td>
<td><strong>12–36 hours</strong></td>
<td><strong>Throughout acute illness; may remain a carrier for months.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Salmonellosis</strong></td>
<td><strong>Abdominal pain and cramping, sudden fever, severe diarrhea (may contain blood), nausea and vomiting lasts 5–7 days.</strong></td>
<td><strong>Bacteria</strong></td>
<td><strong>Fecal-oral transmission: via dirty hands. Also contaminated food (especially improperly cooked poultry, milk, eggs), water supplies, and infected animals.</strong></td>
<td><strong>12–36 hours</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Abdominal pain and cramping, sudden fever, severe diarrhea (may contain blood), nausea and vomiting lasts 5–7 days.</strong></td>
<td><strong>Bacteria</strong></td>
<td><strong>Fecal-oral transmission: via dirty hands. Also contaminated food (especially improperly cooked poultry, milk, eggs), water supplies, and infected animals.</strong></td>
<td><strong>12–36 hours</strong></td>
<td><strong>Throughout acute illness; may remain a carrier for months.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Salmonellosis</strong></td>
<td><strong>Abdominal pain and cramping, sudden fever, severe diarrhea (may contain blood), nausea and vomiting lasts 5–7 days.</strong></td>
<td><strong>Bacteria</strong></td>
<td><strong>Fecal-oral transmission: via dirty hands. Also contaminated food (especially improperly cooked poultry, milk, eggs), water supplies, and infected animals.</strong></td>
<td><strong>12–36 hours</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Abdominal pain and cramping, sudden fever, severe diarrhea (may contain blood), nausea and vomiting lasts 5–7 days.</strong></td>
<td><strong>Bacteria</strong></td>
<td><strong>Fecal-oral transmission: via dirty hands. Also contaminated food (especially improperly cooked poultry, milk, eggs), water supplies, and infected animals.</strong></td>
<td><strong>12–36 hours</strong></td>
<td><strong>Throughout acute illness; may remain a carrier for months.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Salmonellosis</strong></td>
<td><strong>Abdominal pain and cramping, sudden fever, severe diarrhea (may contain blood), nausea and vomiting lasts 5–7 days.</strong></td>
<td><strong>Bacteria</strong></td>
<td><strong>Fecal-oral transmission: via dirty hands. Also contaminated food (especially improperly cooked poultry, milk, eggs), water supplies, and infected animals.</strong></td>
<td><strong>12–36 hours</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Abdominal pain and cramping, sudden fever, severe diarrhea (may contain blood), nausea and vomiting lasts 5–7 days.</strong></td>
<td><strong>Bacteria</strong></td>
<td><strong>Fecal-oral transmission: via dirty hands. Also contaminated food (especially improperly cooked poultry, milk, eggs), water supplies, and infected animals.</strong></td>
<td><strong>12–36 hours</strong></td>
<td><strong>Throughout acute illness; may remain a carrier for months.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Salmonellosis</strong></td>
<td><strong>Abdominal pain and cramping, sudden fever, severe diarrhea (may contain blood), nausea and vomiting lasts 5–7 days.</strong></td>
<td><strong>Bacteria</strong></td>
<td><strong>Fecal-oral transmission: via dirty hands. Also contaminated food (especially improperly cooked poultry, milk, eggs), water supplies, and infected animals.</strong></td>
<td><strong>12–36 hours</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Abdominal pain and cramping, sudden fever, severe diarrhea (may contain blood), nausea and vomiting lasts 5–7 days.</strong></td>
<td><strong>Bacteria</strong></td>
<td><strong>Fecal-oral transmission: via dirty hands. Also contaminated food (especially improperly cooked poultry, milk, eggs), water supplies, and infected animals.</strong></td>
<td><strong>12–36 hours</strong></td>
<td><strong>Throughout acute illness; may remain a carrier for months.</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Children experience many forms of acute illness; however, not all of these are contagious (Bourgeois et al., 2009; Bradley, 2003). Teachers must be able to distinguish conditions that are contagious from those that are limited to an individual child. **However, teachers must never attempt to diagnose children's health problems.** Their primary responsibilities include identifying children who are ill, making them comfortable until parents arrive, and advising the family to contact their health care provider. The remainder of this chapter is devoted to several common childhood illnesses and acute health conditions.

**Colds**

Children may experience as many as seven to eight colds during a typical year. This number tends to decrease as children mature and their respiratory passageways increase in size, their immune systems become more effective at warding off illness, and they begin to develop healthy habits. Cold symptoms can range from frequent sneezing and runny nose to fever, sore throat, cough, headache, and muscle aches (Pappas et al., 2008).

**Cause** Most colds are caused by a viral infection, primarily rhinoviruses and coronaviruses. They spread rapidly and have a short incubation stage of 1 to 2 days.

**Management** Because colds are highly contagious during the first day or two, it is best to exclude children from group settings. Rest, and increased fluid intake (water, fruit juices, soups) are recommended. Non-aspirin, fever-reducing medication may help children feel more comfortable and is usually adequate treatment for a cold. (Note: Schools must obtain a physician’s approval before administering any medication.)

Antibiotics are not effective against most viruses and are therefore of limited value for treating simple colds. However, a physician may prescribe antibiotics to treat complications or secondary infections, such as fever, red throat, white patches on their tonsils (one indication of strep throat), extreme fatigue, or yellow nasal drainage. Toddlers and preschool-age children are often more prone to these conditions and should be observed closely. Families should also be advised to seek immediate medical attention for children who do not improve after 4 to 5 days or if they develop any of these secondary complications.

Some children who have special needs, such as Down syndrome, leukemia, or allergies, may exhibit chronic cold-like symptoms including runny nose and a productive cough. It isn’t necessary for these children to be excluded from school unless they develop signs of a secondary infection.

**Diaper Rash (Diaper Dermatitis)**

Diaper rash is an irritation of the skin in and around the buttocks and genital area. Infants who have sensitive skin or are formula-fed versus breastfed are more likely to experience periodic outbreaks of diaper rash (Hockenberry & Wilson, 2009).

**Cause** Prolonged contact with ammonia in urine and organic acids in stools can burn baby’s skin, causing patches of red, raised areas or tiny pimples. In severe cases, open, weeping areas of the skin may become infected with yeast or bacteria. Reactions to fabric softeners, soaps, lotions, powders, antibiotics, foods, and certain brands of disposable diapers may also cause some infants and toddlers to develop diaper rash.
Management Prompt changing of wet and/or soiled diapers followed by a thorough cleansing of the skin is often sufficient to prevent and treat diaper rash. Baby products, such as powders and lotions, should be avoided because they can encourage bacterial growth when combined with urine and feces. In addition, infants are apt to inhale fine powder particles and many of these products contain phthalates which may have harmful effects on children’s development and reproductive systems (Sathyanarayana et al., 2008). A thin layer of petroleum jelly or zinc oxide ointment can be applied to irritated areas to protect the skin. Allowing the infant to go without diapers (when at home) and exposing irritated skin to the air may also help speed the healing process. If the diaper rash does not improve in 2 or 3 days, parents should be encouraged to contact their health care provider.

Diarrhea

The term diarrhea refers to frequent watery or very soft bowel movements. They may be foul-smelling and also contain particles of blood or mucus. Young children’s digestive systems tend to be more sensitive to foods and medications so that it is not uncommon for them to experience several episodes of diarrhea throughout the year.

Cause Diarrhea can either be infectious or noninfectious. Infectious forms of diarrhea include:

- viral or bacterial infections, such as rotavirus, hepatitis A, or salmonellosis
- parasitic, such as giardia

Causes of noninfectious diarrhea can include:

- fruit juices containing sorbitol (Orenstein, 2006)
- antibiotic therapy
- recent dietary changes
- food allergies, such as lactose or gluten intolerance
- food poisoning
- illnesses, such as earaches, colds, strep throat, or cystic fibrosis
Until new vaccines became available in 2006, approximately 55,000 - 70,000 children were hospitalized each year for severe diarrhea caused by rotavirus (Cortese & Parashar, 2009). Because children under age three are the most frequent victims of this illness, infants are now being immunized at 2-, 4- and 6-months of age. Consequently, the numbers of children who experience rotavirus infections and hospitalizations have declined significantly.

Frequent or prolonged diarrhea can result in dehydration, especially in infants and toddlers. Dehydration involves a loss of body water and can occur quickly in young children due to their poor fluid regulation and small body size. Because excessive dehydration can be fatal in infants and young children, they should be observed closely for:

- dryness of the mouth
- listlessness
- sunken eyes
- absence of tears
- decreased or no urinary output
- rapid, weak pulse
- skin loses elasticity; dough-like

Management It is important to monitor and record the frequency (number) and amount (small, large) of bowel movements. The color, consistency, and presence of any blood, mucus, or pus should also be noted. Be sure to check the child’s temperature and observe for any signs of discomfort. Prompt medical advice should be sought if diarrhea is severe or prolonged, or the child becomes lethargic or drowsy. Adults and children should practice meticulous hand washing to avoid infecting themselves and others.

Most cases of diarrhea can be treated by temporarily replacing solid foods in the child’s diet with a commercially prepared electrolyte solution. This solution supplies important fluids and salts lost through diarrhea and helps to restore normal function. Liquids and soft foods can gradually be added back into the child’s diet once the diarrhea has ended. Any complaint of pain that is continuous or located in the lower right side of the abdomen should be reported promptly to the child’s family and checked by a physician.

Children who have experienced diarrhea during the past 24 hours should be excluded from group settings. Exceptions to this policy would include children whose diarrhea resulted from non-contagious conditions such as food allergies, changes in diet, or recent treatment with antibiotics. However, even these children may not feel well enough to attend school and participate in the day’s activities. The problem and inconvenience of frequent accidental soiling may also be too time-consuming for teachers to manage.

Diarrhea lasting longer than a week should be cause for concern, especially if it is accompanied by bloating, change of appetite, or weight loss. The child should remain at home until a cause is determined, and conditions such as giardia, dysentery, or hepatitis A have been ruled out.

**dehydration** – a state in which there is an excessive loss of body fluids or extremely limited fluid intake. Symptoms may include loss of skin tone, sunken eyes, and mental confusion.

**listlessness** – a state characterized by a lack of energy and/or interest in one’s affairs.

**abdomen** – the portion of the body located between the diaphragm (located at the base of the lungs) and the pelvic or hip bones.
Dizziness

It is not unusual for children to complain of momentary dizziness or a spinning sensation after vigorous play. However, repeated complaints of dizziness should be noted and reported to the child's family. They should be advised to contact the child's physician to determine a possible underlying cause.

Cause Dizziness can be a symptom of other health conditions, including:
- ear infections
- fever
- headaches
- head injuries
- anemia
- nasal congestion and sinus infections
- brain tumor (rare)

Management Temporary episodes of dizziness usually respond to simple first aid measures. Have the child lie down quietly or sit with head resting on or between the knees until the sensation has passed. Quiet play can be resumed when the child no longer feels dizzy. Inform the child's family of this experience so they can continue to monitor the condition at home.
If dizziness is accompanied by any loss of balance or coordination, parents should be encouraged to check with the child's physician at once. Dizziness that results from an underlying health problem will usually not respond to most first aid measures.

**Earaches**

Earaches and ear infections are frequently a problem during the first 3 or so years of a child's life, affecting boys more often than girls (Bradley, 2003). More than half of all infants, especially those who are formula-fed versus breastfed, experience an ear infection before their first birthday (Hetzner et al., 2009). However, by age five, children usually begin to have fewer ear infections as structures in the ear, nose, and throat increase in size and resistance to infection (antibody formation) improves. Children of Native American and Eskimo ethnicity are known to experience a higher rate of ear infections, possibly related to structural differences in the ear canal (Singleton et al., 2009). Exposure to second-hand smoke has also been identified as a contributing factor. Additionally, studies have shown that children in group care tend to have a higher incidence of ear infections and of otitis media than those who stay at home (American Academy of Otolaryngology, 2009).

**Cause**  A number of conditions can cause earache in children, including:

- upper respiratory infections, such as a cold
- allergies
- dental cavities and eruption of new teeth
- excessive ear wax
- foreign objects, such as plastic beads, food, small toy pieces, or stones
- bacterial infections, such as “swimmer’s ear” or otitis media
- feeding infants in a reclining position

Earaches caused by an acute bacterial infection of the middle ear are known as *otitis media*. Children who have some forms of developmental disabilities, such as Williams syndrome, Turner's syndrome, Down syndrome, fragile X, autism, and cleft palate are at higher risk for developing this condition (Schieve et al., 2009). Otitis media causes an inflammation of the eustachian tube (passageway connecting the ear, nose, and throat), which can lead to a backup of fluid in the middle ear and result in pain, fever, and temporary or chronic hearing loss (Hockenberry & Wilson, 2009). Often, only one ear will be affected at a time, and the infection may or may not be accompanied by fluid accumulation behind the eardrum. Placing infants on their backs to sleep has been shown to be effective in decreasing the incidence of ear infection (Hunt et al., 2003). Children, especially infants and toddlers with limited language, should be observed carefully for signs of a possible ear infection, including:

- nausea, vomiting, and/or diarrhea
- tugging or rubbing of the affected ear
- refusal to eat or swallow
- redness of the outer ear

**Reflective Thoughts**

Sometimes families knowingly or unknowingly bring sick children to school or child care. Examine your feelings about being exposed to children’s communicable illnesses. Do you feel differently depending on the illness? What steps can teachers take to improve their resistance to communicable illness? How would you respond to families who repeatedly ignore a program's exclusion policies? How might cultural differences influence what parents view as illness? What could you do to help families understand and respect a program's policies?
Management  Children who develop otitis media do not need to be excluded from group settings unless they are too ill to participate in daily activities or have other symptoms that are contagious. Teachers may be able to provide temporary relief from earache pain by having the child lie down with the affected ear on a soft blanket; the warmth helps to soothe discomfort. A small, dry cotton ball placed in the outer ear may also help reduce pain by keeping air out of the ear canal. If excess wax or a foreign object is causing the child’s ear pain, it must be removed only by a physician.

Persistent complaints of ear pain or earache should not be ignored and need to be checked by the child’s health care provider if symptoms last longer than 2 or 3 days. In most cases the fluid will clear up without treatment. However, chronic otitis media with fluid can interfere with children’s speech and language development and may therefore require medical treatment (Proops & Archarya, 2009; Vernon-Feagons & Manlove, 2005).

Physicians now use several approaches to treat acute bacterial ear infections. Current guidelines recommend taking a wait-and-see approach and limiting the use of antibiotics to reduce the potential of drug resistance. If children are placed on oral antibiotics, it is important that all medication be taken; failure to finish medication can result in a recurrence of the infection. When children have taken all of the prescribed medication, they should be re-checked by a physician to make certain the infection is gone. In some cases, a second round of medication may be needed. Surgical insertion of small plastic tubes into the eardrum is sometimes recommended for children who have repeated infections and chronic fluid buildup to lessen the risk of permanent hearing loss (Singleton et al., 2009). Teachers should be alert to any children with tubes in their ears. Special precautions must be taken to avoid getting water in the outer ear canal during activities that involve water play, such as swimming, bathing, or playing in pools or sprinklers. Ear plugs or a special plastic putty are commonly used for this purpose.

Fainting

Fainting, a momentary loss of consciousness, occurs when blood supply to the brain is temporarily reduced.

Cause  Possible causes for this condition in young children include:

- anemia
- breath-holding
Children may initially complain of feeling dizzy or weak. Their skin may appear pale, cool, and moist, and the child may collapse. If this occurs, lay the child down, elevate the legs 8 to 10 inches on a pillow or similar object, and observe breathing and pulse frequently. A light blanket can be placed over the child for extra warmth. Breathing is made easier if clothing is loosened from around the neck and waist. No attempt should be made to give the child anything to eat or drink until consciousness is regained. The child’s family should be notified and encouraged to consult with their physician.

Fever

Activity, age, eating, sleeping, and the time of day cause normal fluctuations in children’s temperatures. However, a persistent elevated temperature is usually an indication of illness or infection, especially if the child also complains of headache, coughing, nausea, or sore throat.

Cause

Common causes of fever in children include:

- viral and bacterial illnesses, such as ear, skin, and upper respiratory infections
- urinary tract infections
- heat stroke and overheating

Changes in children’s appearance and behavior may be an early indication of fever. Other indications may include:

- flushed or reddened face
- listlessness or desire to sleep
- “glassy” eyes
- loss of appetite
- complaints of not feeling well
- chills
- warm, dry skin; older children may have increased perspiration

Management

Children’s temperature should be checked if there is reason to believe that they may have a fever. Only digital and infrared tympanic thermometers are recommended for use in schools and group-care settings because of safety and liability concerns (Table 6–2). These thermometers are quick and efficient to use, especially with children who may be fussy or uncooperative, and they provide readings that are reasonably accurate (Table 6–3) (Devrim et al., 2007; Sganga et al., 2000). Infrared forehead thermometers are currently being marketed but studies have shown them to be unreliable. Glass mercury thermometers are considered unsafe to use with young children and also pose hazardous environmental concerns.

**hyperventilation** – rapid breathing often with forced inhalation; can lead to sensations of dizziness, lightheadedness, and weakness.

**temperature** – a measurement of body heat; varies with the time of day, activity, and method of measurement.

**fever** – an elevation of body temperature above normal; a temperature over 99.4°F or 37.4°C orally is usually considered a fever.

**tympanic** – referring to the ear canal.
### Table 6-2  Preferred Methods for Checking Children’s Temperature in Group Settings (in Rank Order)

<table>
<thead>
<tr>
<th>Group</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infants and toddlers</td>
<td>Axillary</td>
</tr>
<tr>
<td>2–5 years old</td>
<td>Tympanic</td>
</tr>
<tr>
<td></td>
<td>Axillary</td>
</tr>
<tr>
<td></td>
<td>Oral</td>
</tr>
<tr>
<td>5 years and older</td>
<td>Oral</td>
</tr>
<tr>
<td></td>
<td>Tympanic</td>
</tr>
<tr>
<td></td>
<td>Axillary</td>
</tr>
</tbody>
</table>

Children with an axillary temperature over 99.1°F (37.4°C) or a tympanic reading over 100.4°F (38°C) should be observed carefully for other symptoms of illness. Unless a program’s exclusion policies require children with fevers to be sent home, they can be moved to a separate room or quiet area in the classroom and monitored. If there are no immediate indications of acute illness, children should be encouraged to rest. Lowering the room temperature, removing warm clothing, and offering extra fluids can also help make a child feel more comfortable. Fever-reducing medications should be administered only with a physician’s approval. Families should also be notified so they can decide whether to take the child home or wait to see if any further symptoms develop.

### Headaches

Headaches are not a common complaint of young children, but when they do occur they are usually a symptom of some other condition. Repeated complaints of headache should be brought to families’ attention.

**Cause**  Children may experience headaches as the result of several conditions, including:

- bacterial or viral infections
- allergies
- head injuries
- emotional tension or stress
- reaction to medication
- lead poisoning
- hunger
- eye strain
- nasal congestion
- brain tumor (rare)
- constipation
- carbon monoxide poisoning

**Management**  In the absence of any fever, rash, vomiting, or disorientation, children who experience headaches can remain in care but should continue to be observed for other indications of illness or injury. Frequently, their headaches will disappear with rest. However, patterns of repeated or intense headaches should be noted and families encouraged to discuss the problem with the child’s physician.

*disorientation – lack of awareness or ability to recognize familiar persons or objects.*
<table>
<thead>
<tr>
<th>Type</th>
<th>Advantages</th>
<th>Disadvantages</th>
<th>Normal Range</th>
<th>How to Use</th>
<th>How to Clean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital thermometer</td>
<td>Can be used to check oral and axillary temperatures</td>
<td>Takes 1–2 minutes to obtain a reading</td>
<td>(Axillary) 94.5°–99.0°F (34.7°–37.2°C)</td>
<td>Turn switch on; wait for beep to signal ready.</td>
<td>Remove disposable cover.</td>
</tr>
<tr>
<td></td>
<td>Safe, unbreakable</td>
<td>Requires child to sit still</td>
<td>(Oral) 94.5°–99.5°F (34.7°–37.3°C)</td>
<td>Apply disposable sanitary cover (optional).</td>
<td>Wipe with alcohol or clean with soap and cool water.</td>
</tr>
<tr>
<td></td>
<td>Numbers are easy to read</td>
<td>Axillary readings are less accurate than oral</td>
<td></td>
<td>Place under tongue (oral) or in crease of armpit; hold in place; wait for beep to signal reading</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Beeps when ready</td>
<td>Must purchase batteries and disposable covers</td>
<td></td>
<td>Insert probe carefully into ear canal opening; reading appears in seconds.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Easy to clean</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tympanic thermometer</td>
<td>Yields a quick reading</td>
<td>Thermometer is expensive to buy (approximately $40–60)</td>
<td>96.4°–100.4°F (35.8°–38°C)</td>
<td>Apply disposable earpiece.</td>
<td>Wipe instrument (probe) with alcohol.</td>
</tr>
<tr>
<td></td>
<td>Easy to use</td>
<td>Accuracy of reading depends on correct positioning in child’s ear canal (differs from child to child)</td>
<td></td>
<td>Turn on start button.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Can check child’s temperature while asleep</td>
<td>Must purchase batteries and disposable ear piece coverings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Requires limited child cooperation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Heat Rash

Heat rash is most commonly seen in infants and toddlers.

**Cause** Heat rash is caused by a blockage in the sweat glands and occurs more commonly during the summer months, although it may also develop when an infant or child is dressed too warmly. Some children have sensitive skin and may develop heat rash from clothing made of synthetic fabrics.

**Management** Heat rash is not contagious. However, several measures can be taken to make a child more comfortable. Affected areas can be washed with cool water, dried thoroughly, and dusted sparingly with cornstarch.

Lyme Disease

**Lyme disease** is a tick-borne infection most prevalent along the East Coast, although it has been identified in nearly every U.S. state and many provinces of Canada (Anderson & Chaney, 2009; Sockett & Artsob, 2009). The number of cases continues to increase. There were over 29,000 confirmed cases and 6200 probable cases reported in 2008, with children ages birth to 14 being the most common victims (CDC, 2009b).

**Cause** This bacterial illness is caused by the bite of a tiny, infected deer tick; however, not all deer ticks are infected, nor will everyone who is bitten develop Lyme disease. Many species of the deer tick are commonly found in grassy and wooded areas during the summer and fall months.

**Management** The most effective way to prevent Lyme disease is to take preventive measures whenever children will be spending time outdoors, especially in grassy or wooded areas (Table 6–4). Because deer ticks are exceptionally small, they are easily overlooked. Development of any unusual symptoms following a tick bite should be reported immediately to a physician. Early symptoms of Lyme disease may be easily mistaken for other illnesses, which sometimes makes the condition difficult to diagnose. In the early weeks following a bite, a small red, flat, or raised area may develop at the site, followed by a localized rash that gradually disappears. Flu-like symptoms,

**Table 6–4  Measures to Prevent Tick Bites**

- Encourage children to wear long pants, a long-sleeved shirt, socks, shoes, and a hat; light-colored clothing makes it easier to spot small deer ticks.
- Apply insect/tick repellent containing DEET to clothing and exposed areas of the skin (Hansmann, 2009; Katz, Miller, & Hebert, 2008). Be sure to follow manufacturer's directions and avoid aerosol sprays that children might inhale.
- Discourage children from rolling in the grass or sitting on fallen logs.
- Remove clothing as soon as children come indoors and check all areas of the body (under arms, around waist, behind knees, in the groin, on neck) and hair.
- Bathe or shower to remove any ticks.
- Wash clothing in soapy water and dry in dryer. (Heat will destroy ticks.)
- Continue to check children for any sign of ticks that may have been overlooked on a previous inspection.
- Promptly remove any tick discovered on the skin and wash the area carefully. (See Chapter 9.)

**Lyme disease** – bacterial illness caused by the bite of infected deer ticks found in grassy or wooded areas.
including fever, chills, fatigue, headache, and joint pain, may also be experienced during this stage. If the bacterial infection is not diagnosed early and treated with antibiotics, complications, including arthritis, heart, and/or neurological problems can develop within 2 years of the initial bite. A blood test is available for early detection.

**Sore Throat**

Sore throats are a relatively common complaint among young children, especially during the fall and winter seasons. Teachers must often rely on their observations to determine when infants and toddlers may be experiencing a sore throat because children of this age are unlikely to verbalize their discomfort. Fussiness, lack of interest in food or refusal to eat, difficulty swallowing, enlarged lymph glands, fever, and fatigue may be early indications that the child is not feeling well.

**Cause**  Most sore throats are caused by a viral or bacterial infection. However, some children may experience a scratchy throat as the result of sinus drainage, mouth breathing, or allergies.

**Management**  It is extremely important not to ignore a child’s complaint of sore throat. A small percentage of sore throats are caused by a highly contagious streptococcal infection (Table 6–1). Although most children are quite ill with these infections, some may experience only mild symptoms, such as headache or stomachache and fever, or none at all. Unknowingly, they may become carriers of the infection and capable of spreading it to others. A routine throat culture is necessary to determine if a strep infection is present and which antibiotic will provide the most effective treatment. If left untreated, strep throat can lead to serious complications, including rheumatic fever, heart valve damage, and kidney disease (Hockenberry & Wilson, 2009).

Sore throats resulting from viral infections are not usually harmful, but they may cause the child considerable discomfort. Cool beverages (and popsicles) can soothe an irritated throat. Antibiotics are not effective against most viral infections and, therefore, seldom prescribed.

**Stomachaches**

Most children experience an occasional stomachache from time to time. However, children may use this term to describe a range of discomforts, from hunger or a full bladder to actual nausea, cramping, or emotional upset. Teachers can use their observation and questioning skills to determine a probable cause.

**Cause**  Children's stomachaches are often a symptom of some other condition. There are many possible causes, including:

- food allergies or intolerance
- appendicitis
- intestinal infections, e.g., giardiasis, salmonella, E. coli
- urinary tract infections
- gas or constipation
- side effect to medication, especially antibiotics
- change in diet
- emotional stress or desire for attention
- hunger
- diarrhea and/or vomiting
- strep throat

*intestine* – pertaining to the intestinal tract or bowel.
Management  There are several ways to determine whether or not a child’s stomach pain is serious. Is the discomfort continuous or a cramping-type pain that comes and goes? Does the child have a fever? Is the child able to continue playing? If no fever is present, the stomachache is probably not serious. Encourage the child to use the bathroom and see if urination or having a bowel movement relieves the pain. Have the child rest quietly to see if the discomfort goes away. Check with families to determine if the child is taking any new medication or has had a change of diet. Stomach pain or stomachaches should be considered serious if they:

- disrupt a child’s activity, such as running, playing, eating, sleeping
- cause tenderness of the abdomen
- are accompanied by diarrhea, vomiting, or severe cramping
- last longer than 3 to 4 hours
- result in stools that are bloody or contain mucus

If any of these conditions occur while the child is attending school or group care, families should be notified and advised to seek prompt medical attention for the child.

Sudden Infant Death Syndrome (SIDS)

Sudden infant death syndrome (SIDS) refers to the unexplainable death of a seemingly healthy infant under 12 months of age. It is a leading cause of infant death, which tends to peak between the second and fourth months (National SIDS Resource Center, 2009). Deaths are more likely to occur during sleep (nighttime and naps), and especially during the fall and winter months. Despite aggressive awareness campaigns, approximately 2,000–3,000 infants continue to die each year (CDC, 2009a).

Cause  Although no one single cause has yet been identified, several factors seem to place some babies at higher risk of dying from SIDS, including:

- premature birth
- weighing less than 3.5 pounds at birth
- being a male child
- being of African American or American Indian/Alaska Native ethnicity (MacDorman & Mathews, 2009)
- having a sibling who also died of SIDS
- family poverty
- prenatal exposure to alcohol and/or illicit drugs, such as cocaine, heroin, or methadone
- maternal smoking (during and after pregnancy) (Richardson, Walker, & Horne, 2009a)
- being born to a teenage mother

Children born into families with limited education and financial resources seem to experience the highest rate of SIDS deaths. Many of their mothers failed to obtain prenatal care or they engaged in unhealthy practices during and after their pregnancy. Infants who die of SIDS often experience repeated interruptions of breathing called apnea. Researchers continue to investigate possible connections between this breathing disturbance and other factors, including:

- toxic mattress fumes
- immunizations
- use of pacifiers
- air pollution
- bed sharing or co-sleeping with parents (Hauck et al., 2008)
- respiratory infections (such as colds and flu)
- swaddling (Richardson, Walker, & Horne, 2009b)

urination – the act of emptying the bladder of urine.
apnea – momentary absence of breathing.
To date there has been no scientific evidence linking toxic mattress fumes or immunizations to SIDS. In fact, babies who are immunized are less likely to die from SIDS (First Candle/SIDS Alliance, 2009). Evidence regarding bed-sharing practices as a risk factor remains controversial although most authorities encourage parents to place infants in their own crib (near parents) to sleep (Shapiro-Mendoza et al., 2009).

Recent studies have established a connection between low production of serotonin, a hormone that regulates breathing, and SIDS (Duncan et al., 2010). Other studies have identified a positive relationship between SIDS and air pollution (Richardson, Walker, & Horne, 2009a). These findings have led to recommendations that families avoid exposing babies to second-hand smoke and other forms of concentrated air pollution. The use of pacifiers has actually been shown to reduce SIDS deaths although questions remain about why this practice is beneficial (Mitchell, 2009; Sexton & Natale, 2009).

Management  An infant’s sleeping position has proven to be the strongest link to preventing SIDS (Kinney & Thach, 2009). This discovery led to a nationwide “Back to Sleep” campaign, which has been ongoing and credited with significantly reducing SIDS deaths (NICHD, 2009). Multiple child and maternal government and private agencies continue to educate parents about proper sleep positioning for infants—that babies must always be placed on their backs for sleeping—and have extended their efforts to include early childhood teachers and caregivers. Although fewer than 16 percent of SIDS fatalities occur in early childhood programs, teachers must take steps to avoid any preventable death (AAP, 2009; Moon, Calabrese, & Aird, 2008). Despite ongoing educational efforts, researchers have found that nearly one-quarter of early childhood teachers continue to place infants in unsafe conditions and sleeping positions. As a result, many states now address infant sleep position in their child care licensing regulations so that programs will no longer be able to ignore this critical safety measure.

Initial fears that babies would be more likely to choke when placed on their back for sleeping have not proven true. It isn’t clear whether back-sleeping improves infants’ oxygen intake or reduces their breathing in of carbon dioxide. However, the SIDS death rate has decreased by nearly 50 percent since this practice was initially recommended (CDC, 2009a).

Babies should not share a crib with another infant nor sleep in a bed with adults; both of these practices have been found to increase the risk of SIDS. However, researchers have found that placing an infant’s crib in the same room with their parents can decrease this risk (Fu et al., 2008). Additional guidelines for reducing the risk of SIDS are outlined in Table 6–5.

Because infants spend many hours sleeping, it is important to change their position often during times when they are awake so they are not always on their backs. Weak neck muscles make

---

**Table 6–5  Teacher Checklist: Practices to Reduce the Risk of Sudden Infant Death Syndrome (SIDS)**

- Always put infants to sleep on their back unless a health condition prevents this.
- Use a firm mattress that fits snugly in a safety-approved crib. Never place infants on a waterbed, sheepskin, comforter, soft sofa cushions, or other soft bedding material.
- Remove pillows, thick or fluffy blankets, and soft toys from an infant’s bed.
- Cover infants with a thin blanket, tucking the bottom half under the mattress (Figure 6–1).
- Dress infants in light sleepwear and do not raise room temperature to avoid overheating.
- Offer a pacifier to infants who use them.
- Avoid exposing infants to second-hand smoke, car exhaust, wood smoke, and other air pollutants.
- Limit infants’ exposure to persons who have colds or other respiratory infections.
- Encourage mothers to obtain professional prenatal care for themselves and recommended well-child checkups for their infant.
- Encourage and support breastfeeding; this may help to protect infants against SIDS.
- Know how to respond to medical emergencies.
it difficult for infants to turn their head from side to side; flat spots may develop when they remain in the same position for extended periods. These can be prevented by changing infants’ position and placing them on their tummies for brief periods while they are awake. Alternating an infant’s position in the crib is also beneficial—one day the head should be placed at the head of the crib, the following day the head should be placed at the foot of the bed. This prevents the infant from consistently laying on the same side of his or her head every day.

Because there is often no identifiable cause for SIDS, families tend to blame themselves for having been negligent or using poor judgment. They may believe that somehow they could have prevented this tragedy. Consequently, families who have experienced the unexpected death of an infant from SIDS require special emotional support and counseling. Siblings may also be affected by an infant’s death and should be included in counseling therapy. Local chapters of several national SIDS organizations offer information and support groups to help families cope with their grief, including:

- First Candle/SIDS Alliance (http://www.sidsalliance.org)
- National SIDS Resource Center (http://www.sidscenter.org)
- Association of SIDS and Infant Mortality Programs (http://www.asip1.org)
- Canadian Foundation for the Study of Infant Deaths (http://www.SIDSCanada.org)

Teething

Teething is a natural process. Infants usually begin getting their first teeth around 4 to 7 months of age. Older children will begin the process of losing and replacing their baby teeth with a permanent set about the time they reach their fifth or sixth birthday.

**Cause** New teeth erupting through gum tissue can cause some children mild discomfort. However, most children move through this stage with relatively few problems.

**Management** An increase in drooling and chewing activity for several days or weeks may be the only indication that an infant is teething. Some infants become a bit more fussy, run a low-grade fever (under 100°F), and may not be interested in eating. However, high fevers, diarrhea, and vomiting are usually not caused by teething, but may be an indication of illness. Chilled teething rings and firm objects for children to chew often provide comfort and relief to swollen gums.

Toothache

Young children do not typically experience toothaches. Untreated oral health problems can cause pain and suffering, interfere with speech and language development, make eating difficult, affect school performance, and lead to early tooth loss. Preventive oral health care is an important component of wellness, and children should not have to forgo necessary dental treatment because of limited family income (Vargas & Arevalo, 2009; Malik-Kotru, Kirchner, & Kisby, 2009). Low-cost insurance (CHIP), Medicaid, and community resources, such as clinics and dental schools, are available to help families obtain essential dental care for children (National Maternal & Child Oral Health Resource Center, 2009).
Some infants and toddlers may experience temporary discomfort while teething. Older children may have similar discomfort when they begin losing baby teeth and their permanent teeth erupt.

**Cause** Although tooth decay is the most common cause of toothache, gum disease and injury can also be painful. Children may complain of a throbbing discomfort that sometimes radiates into the ear. Redness and swelling may also be observed around the gumline of the affected tooth. Foods that are hot or very sweet may intensify pain.

**Management** Complaints of toothache require prompt attention from the child’s dentist. In the meantime, an icepack applied to the cheek on the affected side may make the child feel more comfortable. Aspirin-free products can also be administered by the child’s family for pain relief. However, prevention, including proper brushing after eating and reduction of dietary sugars, is always the preferred approach for limiting tooth decay.

**Vomiting**

Vomiting can be a frightening and unpleasant experience for children. True vomiting is different from a baby who simply spits up after eating. Vomiting is a symptom often associated with an acute illness or other health problem (Hockenberry & Wilson 2009).

**Cause** A number of conditions can cause children to vomit, including:

- emotional upset
- viral or bacterial infection, such as stomach flu or strep throat
- drug reactions
- ear infections
- meningitis
- **salmonellosis**
- indigestion
- severe coughing
- head injury
- poisoning

**Management** The frequency, amount, and composition of vomited material is important to observe and record. Dehydration and disturbances of the body’s chemical balance can occur with prolonged or excessive vomiting, especially in infants and toddlers. Children should be observed carefully for:

- high fever
- abdominal pain

**salmonellosis** – a bacterial infection that is spread through contaminated drinking water, food, or milk or contact with other infected persons. Symptoms include diarrhea, fever, nausea, and vomiting.
Children who continue to vomit and show signs of a sore throat, fever, or stomach pains should be sent home as soon as possible. The teacher should also advise the child’s family to contact their physician for further advice.

In the absence of any other symptoms, a single episode of vomiting may simply be due to an emotional upset, dislike of a particular food, excess mucus, or reaction to medication. Usually the child feels better immediately after vomiting and should be encouraged to rest quietly while remaining at school.

In addition to not feeling well, some children are upset by the act of vomiting itself. Extra reassurance and comforting can help make the experience less traumatic. Infants should be positioned on their stomachs, with their hips and legs slightly raised to allow vomited material to flow out of the mouth and prevent choking. Older children should also be watched closely so they don’t choke or inhale vomitus.

**West Nile Virus**

Humans have long considered mosquitoes to simply be annoying insects that buzz in the ear, feast on exposed skin, and leave an itchy raised welt as their calling card. However, they are also capable of transmitting disease. The Centers for Disease Control and Prevention (CDC) reported 1356 West Nile virus cases in the United States during 2008 (CDC, 2009c); a total of 2215 cases were reported in Canada for 2007 (Public Health Agency of Canada, 2008).

A majority of persons infected with the West Nile virus will have no symptoms of the illness. Some people will experience mild flu-like symptoms; a small percent will develop more serious symptoms, such as high fever, muscle weakness, rash, stiff neck, tremors, disorientation, coma, and even death. Young children and the elderly are at the greatest risk for developing the West Nile virus.

**Cause**  West Nile virus is caused by the bite of an infected mosquito. The incidence is highest during the summer and fall seasons. However, there have also been limited reports of transmission via blood transfusion and the breast milk of an infected mother.

**Management**  Prevention is the most important and effective strategy for avoiding this infectious illness (LaBeaud et al., 2009). Eliminating standing water found in flower pots, water fountains, bird baths, buckets, tire swings, small pools, and similar sources removes mosquito breeding sites. A number of products containing natural chemicals and bacteria are available to spray or to use in ponds that cannot be drained. Additional precautionary measures include applying mosquito repellents containing DEET whenever going outdoors, wearing protective clothing (long sleeves, long pants), staying indoors during early morning and evening hours when mosquitoes are at their peak activity, and making sure that screen doors and windows are in good repair. In most cases, persons with mild symptoms will recover without medical treatment. However, prompt medical attention should be sought for prolonged illness or if any serious complications develop.

Finally, rely on your intuition. Don’t hesitate to call the doctor if you are unsure about the symptoms your child may be experiencing. Most physicians would rather be notified of a child’s condition than to be called only when there is a crisis.
When to Call the Doctor

Frequent bouts of illness are not uncommon among young children. With time, their bodies mature, they begin to build up resistance (immunity) to many illnesses, and their immunizations will have been completed. In the meantime, families often face the difficult task of deciding at what point their child is sick enough to warrant a call to the doctor. Although each child’s symptoms and needs are different, there are guidelines that may be helpful in making this decision. Call the physician if your child:

- Experiences serious injury, bleeding that cannot be stopped, or excessive or prolonged pain.
- Is less than one month old and develops a fever, or is between 1 and 3 months of age and has a rectal temperature over 100.4°F.
- Has difficult, rapid, or noisy breathing.
- Experiences any loss of consciousness, including a seizure.
- Complains of unusual pain in an arm or leg. X-rays may be necessary to rule out a fracture.
- Has repeated episodes of vomiting or diarrhea and is unable to keep down liquids. Symptoms of dehydration include urination fewer than three times per day, dry lips or tongue, headache, lack of tears, and excessive drowsiness. A sunken fontanel (soft spot) is an additional symptom in infants. Young children can become dehydrated quickly.
- Develops an unusual skin rash, especially one that spreads.
- Has blood in his/her vomit, urine, or stool.
- Suffers an eye injury or develops an eye discharge. Children who have sustained an eye injury should always be seen by a physician.
- Develops stomach pain that is prolonged or interferes with appetite or activity.
- Becomes excessively sleepy and difficult to arouse.

Gear up for health...

**Concept:** Physical activity is important for staying healthy. (Grades 3–5; National Health Education Standards 1.5.1 and 6.5.1)

**Learning Objectives**

- Children will learn the importance of moving to stay healthy.
- Children will improve their aerobic condition.

**Supplies**

- worksheet for recording activities
- kick balls

(continued)
Classroom Corner

Teacher Activities (continued)

- pedometers
- charts or graph paper
- Mylar balloons
- masking tape

Learning Activities

- Read and discuss any of the following books:
  - *Anna Banana: 101 Jump-Rope Rhymes* by Joanna Cole
  - *Norma Jean, Jumping Bean* by Joanna Cole
  - *Song and Dance Man* by Karen Ackerman
  - *Snow Dance* by Lezlie Evans

- As a group, discuss the benefits of physical activity in terms of improving the body's immune system to fight off germs and protect against illness. Encourage the children to brainstorm activities that will increase their respiratory and heart rates (jumping rope, running, riding bikes, going for a walk, playing soccer, etc.).

- Introduce the terms *aerobic* (activities that increase heart and breathing rates) and *anaerobic* (activities that improve muscle strength) and explain the differences. Prepare a worksheet with two columns: one headed “aerobic activities,” the other “anaerobic activities.” Have the children list as many activities as they can in each appropriate column. As a group, ask the children to share one activity listed on their sheet and compile a master class list. Challenge the children to engage in at least one of these activities each day.

- Set up a game of kick ball and give each child a pedometer to wear during the activity. At the end of 15 minutes, have each child record the number of steps he or she has taken. As an alternative, set up two cones and have children run laps; each week, increase the distance or number of laps children must run. Older children can graph their data (number of steps) while younger children might simply keep a daily tally. Varying the distance between cones, the number of laps run, or the length of playing time is an effective way to help children grasp the relationship between activity and health benefits. Children can also set weekly goals for themselves and gradually increase the number of steps they want to accumulate on their pedometer.

- Play balloon volleyball (great indoor activity). Group children into small teams, place a tape line on the floor, and instruct children to keep the balloon in motion by batting it back and forth. Have the children compare and describe how they felt before (heart beating slowly, easy to breathe) and after (breathing hard, heart beating fast, sweaty) the activity.

Evaluation

- Children will describe how physical activity improves health.
- Children will improve aerobic capacity by setting goals and recording their progress.

Additional lesson plans for grades PreK–2 are available on this text’s website.
Summary

Illness is common among young children in schools and group settings.

Teachers can utilize multiple strategies to control the spread of illnesses:

- careful observation and early identification of sick children
- implementation of exclusion policies
- thorough hand washing
- environmental sanitation
- ongoing health education

Teachers should be familiar with the signs/symptoms, method of transmission, and control measures associated with common communicable and acute childhood illnesses.

Terms to Know

symptoms p. 136
asymptomatic p. 142
infection p. 148
dehydration p. 150
listlessness p. 150
abdomen p. 150

hyperventilation p. 154
temperature p. 154
fever p. 154
tympanic p. 154
disorientation p. 155
Lyme disease p. 157
intestinal p. 158
urination p. 159
apnea p. 159
salmonellosis p. 162

Chapter Review

A. By Yourself:

1. Define each of the Terms to Know.
2. Match each of the following signs/symptoms in column I with the correct communicable illness in column II.

<table>
<thead>
<tr>
<th>Column I</th>
<th>Column II</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. swelling and redness of white portion of the eye</td>
<td>a. chickenpox</td>
</tr>
<tr>
<td>2. frequent itching of the scalp</td>
<td>b. strep throat</td>
</tr>
<tr>
<td>3. flat, oval-shaped lesions on the scalp, skin; infected nails become discolored, brittle, and chalky and may disintegrate</td>
<td>c. head lice</td>
</tr>
<tr>
<td>4. high fever; red, sore throat</td>
<td>d. shigellosis</td>
</tr>
<tr>
<td>5. mild fever and rash that lasts approximately 3 days</td>
<td>e. conjunctivitis</td>
</tr>
<tr>
<td>6. irritability and itching of the rectal area</td>
<td>f. ringworm</td>
</tr>
<tr>
<td>7. red rash with blister-like heads; cold-like symptoms</td>
<td>g. German measles</td>
</tr>
<tr>
<td>8. sudden onset of fever; swelling of salivary glands</td>
<td>h. scabies</td>
</tr>
<tr>
<td>9. burrows or linear tunnels under the skin; intense itching</td>
<td>i. pinworms</td>
</tr>
<tr>
<td>10. vomiting, abdominal pain, diarrhea that may be bloody</td>
<td>j. mumps</td>
</tr>
<tr>
<td></td>
<td>k. Lyme disease</td>
</tr>
</tbody>
</table>
B. As a Group:

1. Discuss what a teacher should do in each of the following situations:
   a. You have just finished serving lunch to the children, when Kara begins to vomit.
   b. The class is involved in a game of keep-away. Theo suddenly complains of feeling dizzy.
   c. During check-in, a parent mentions that his son has been experiencing stomachaches every morning before coming to school.
   d. Lucy wakes up from her afternoon nap crying because her ear hurts.
   e. You have just changed a toddler’s diaper for the third time in the last hour because of diarrhea.
   f. Christi enters the classroom, sneezing, and blowing his nose.
   g. While you are helping Jasmine put on her coat to go outdoors, you notice that her skin feels very warm.
   h. Randy refuses to eat his lunch because it makes his teeth hurt.
   i. While you are cleaning up the blocks, Sean tells you that his throat is sore and it hurts to swallow.
   j. You have just taken Monique’s temperature (orally) and it is 102°F.

2. The concepts of illness and pain are often viewed differently by various cultural groups. Select two or three predominant cultures and research their beliefs about illness and pain. How might these differences in cultural values and beliefs influence your response in each of the situations described in Question #1?

Case Study

The teacher noticed that Carrie seemed quite restless today and was having difficulty concentrating on any task that she started. She continuously squirmed, whether in her chair or sitting on the floor. On a number of occasions the teacher also observed Carrie tugging at her underwear and scratching her bottom. She recalled that Carrie’s mother had mentioned something about getting her younger brother tested for pinworms and wondered if this might be what she was observing.

1. What action should the teacher take in this situation?
2. What control measures should be implemented? At school? At home?
3. When can Carrie return to school?
4. If Carrie does have pinworms, for what length of time must the teacher carefully observe the other children for similar problems?
5. What special personal health measures should be emphasized with the other children?

Application Activities

1. With a partner, practice taking each other’s axillary, oral, and tympanic temperatures. Follow steps for correct cleaning of the thermometer between each use.
2. Divide the class into groups of five to six students. Discuss how each member feels about caring for children who are ill. Could they hold or cuddle a child with a high fever or diarrhea? What are their feelings about being exposed to children’s contagious illnesses? How might they react...
if an infant just vomited on their new sweater? If they feel uncomfortable around sick children, what steps could they take to better cope with the situation?

3. Select another student as a partner and observe that person carefully for 20 seconds. Now look away. Write down everything you can remember about this person, such as eye color, hair color, scars or moles, approximate weight, height, color of skin, shape of teeth, clothing, and so on. What can you do to improve your observational skills?

4. Conduct an Internet search to learn more about avian (bird) flu. What is it? What steps are being taken at the national level to control its spread? What is your community doing?

**References**


Chapter 6  Communicable and Acute Illness: Identification and Management


