

Chapter 7: Managing Childhood Illnesses & Infestations

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Daily Health Check

Upon arrival at the child care facility, each family will be greeted by a staff member who will spend a few minutes with the parent and child while **conducting a daily health check**. The caregiver should be at the child's level.

Here is a list of possible **visual signs** and symptoms to check:

- ___ Face and head (cuts, bruises, sore spots)
- ___ Eyes, ears, nose (redness, discharge, swelling, pain)
- ___ Hair (clean; check for lice or ringworm)
- ___ Arms and legs (cuts, bruises, burns, sores or wounds, pain)
- ___ Hands (sores, wounds, burns, unusual scars)
- ___ Feet (limping, pain, wounds, burns)
- ___ Skin (rashes, irritation, insect bites)
- ___ General appearance (body, hair and clothing clean; energy level; extreme hunger)
- ___ Obvious signs of illness (droopy appearance; listless; upset stomach)
- ___ "Hidden" areas (check for obvious signs of physical or sexual abuse during first bathroom break - bruising, pain during urination or bowel movement, bleeding)
- ___ Other _____

The tactile (**touch**) health check involves gently rubbing your hand on the child's back, shoulder, or head as you greet him or her. This is one way to observe signs of possible illness or injury on areas of the body which are covered by clothing or hair.

- ___ General feeling of warmth, indicating possible fever
- ___ Possible bruising or soreness; the child may flinch or pull away from your touch

Verbal communication as you greet each child may provide clues to possible illness or injury. Talk to child and ask questions such as:

- Did you get a good night's sleep?
- If an injury or apparent sore is observed, ask the child "How did you get hurt?"

Also communicate with the parent:

- Did child sleep normally?
- Is child eating and drinking normally? When was the last time child ate or drank?
- How did child seem to feel and act at home?
- Have any unusual events taken place?
- Have bowel movements and urine been normal? When was the last time child used toilet or diaper was changed?

Note (in writing) any evidence of illness or injury since child was last at child care. Discuss any concerns with parent and **keep a written record** of observation, date and time, and the discussion.

If a possible communicable disease is discovered during the Daily Health Check, the parent may be asked to take the child home.

Recommendations for Exclusion

Mild illness is common among children. Most children will not need to be excluded from their usual source of care for mild illnesses. Examples of **illnesses and conditions that do not require exclusion** include the following:

Symptoms	Management
Common cold	Use good hand hygiene at all times. Teach children to cover sneezes and coughs. Ventilate the facility with fresh outdoor air and maintain temperature and humidity.
Diarrhea (unless stool cannot be contained in diaper or if child is toilet trained and having accidents)	Use good hand hygiene at all times. Ensure children's immunizations are up to date. Use proper methods to cook and store food. Exclude for specific types of symptoms only. Use universal precautions with all children.
Rash without fever and without behavior change	Use good hand hygiene at all times. Exclude for specific types of symptoms only. Use universal precautions with all children.
Parvovirus B 19 infection (Fifth Disease)	Use good hand hygiene at all times. Exclude for specific types of symptoms only. Use universal precautions with all children.
Cytomegalovirus (CMV) infection	Use good hand hygiene at all times. Exclude for specific types of symptoms only. Use universal precautions with all children.
Chronic hepatitis B (HBV)	Use good hand hygiene at all times. Ensure all children's immunizations are up to date. Use universal precautions with all children. Do not permit the sharing of pacifiers or toothbrushes. Exclude for specific types of symptoms only.
Conjunctivitis without fever and without behavioral change (Pinkeye)	Use good hand hygiene at all times. Most children with pinkeye will get better after 5 or 6 days without antibiotics. Use universal precautions with all children. Exclude for specific types of symptoms only.
Human immunodeficiency virus (HIV)	Use good hand hygiene at all times. Use universal precautions with all children. Exclude for specific types of symptoms only.
Known methicillin-resistant Staphylococcus aureus (MRSA)	Use good hand hygiene at all times. Use universal precautions with all children. Avoid sharing personal items. Cover open or draining sores or wounds. Exclude for specific types of symptoms only.
Thrush (white spots or patches in the mouth)	Use good hand hygiene at all times. Do not permit sharing of toothbrushes or pacifiers.

The amount of illness decreases after a child's first full year of attendance. Germs in early childhood programs are the same as those found in community outbreaks. The majority of infections are mild, self-limited, and require no treatment. Children attending early education or child care programs have fewer infections during their kindergarten year of school.

(Adapted from: Aronson, S. S., T. R. Shope, eds. 2013. Managing infectious diseases in child care and schools: A quick reference guide, 59-65. 3rd ed. Elk Grove Village, IL: American Academy of Pediatrics.)

Preparing for managing illness

Caregivers should:

- a. Encourage all families to have a backup plan for child care in the event of short or long term exclusion.
- b. Review the inclusion and exclusion policies with families before enrollment. Clarify that the program staff, (not the families), will make the final decision about whether children who are ill may stay based on the program's inclusion and exclusion criteria and their ability to care for the child without compromising the care of other children in the program.
- c. Develop procedures for handling children's illnesses, including care plans and inclusion and exclusion policies. Consider asking a health professional (such as a public health nurse) to help you.
- d. Request a health care provider's note to readmit a child if needed to determine whether the child is a health risk to others, or if the health care provider's guidance is needed about any special care the child requires.
- e. Rely on the family's description of the child's behavior to determine whether the child is well enough to return, unless the child's status is unclear from the family's report.

Key criteria for exclusion of children who are ill:

When a child becomes ill but does not require immediate medical help, a determination must be made regarding whether the child can remain in care, or should be sent home and temporarily "excluded" from child care. Most illnesses do not require exclusion. The caregiver should determine if the illness:

- a. Prevents the child from participating comfortably in activities
- b. Results in a need for care that is greater than the staff can provide without compromising the health and safety of other children
- c. Poses a risk of spread of harmful diseases to others

If any of the above criteria are met, the child should be excluded, regardless of the type of illness. The child should be removed from direct contact with other children and should be cared for in an area where the toys, equipment, and surfaces will not be used by other children or adults until after the ill child leaves and after the surfaces and toys have been cleaned and disinfected. The child will be cared for by a staff member known to the child until the parent arrives to take the child home.

When a child requires exclusion the caregiver will:

- a. Provide care for the child in a place where the child will be comfortable and supervised by someone who knows the child well and who will continue to observe the child for new or worsening symptoms.
- b. Document all signs and symptoms of illness including time and circumstances when symptoms appeared, temperature (if taken), and any changes in the child's condition. A potentially contagious child should be separated from other children by at least three feet. Each facility should have a predetermined physical location(s) where an ill child(ren) could be placed until care can be transferred to a parent or family member.
- c. Contact the family and ask that someone pick the child up as soon as possible once it is determined the child needs to be excluded.
- d. Discuss the signs and symptoms of illness with the parent who is assuming care. Review guidelines for returning to child care. If necessary, provide the family with written notes that may be given to the health care provider. The communication should include onset time of symptoms, observations about the child, vital signs and times (e.g., temperature 101.5°F at 10:30 AM) and any actions taken and the time actions were taken (e.g., one children's acetaminophen given at 11:00 AM). The nature and severity of symptoms and or requirements of the local or state health department will determine the necessity of medical consultation. Telephone advice, electronic transmissions of instructions are acceptable without an office visit.
- e. Follow the advice of the child's health care provider.

Contact the local health department if there is a question of a reportable (harmful) infectious disease in a child or staff member in the program. If there are conflicting opinions from different medical professionals about the management of a child with a reportable infectious disease, the health department has the legal authority to make a final determination.

- Document actions in the child's file with date, time, symptoms, and actions taken (and by whom); sign and date the document.
- In collaboration with the local health department, notify the parents of contacts to the child or staff member with presumed or confirmed reportable infectious disease.

The caregiver or the director at the early childhood program makes the final decision about whether a child meets or does not meet the exclusion criteria for participation and the child's need for care relative to the staff's ability to provide care.

Reportable conditions: The current list of infectious diseases designated as notifiable in the United States at the national level by the Centers for Disease Control and Prevention (CDC) are listed at

http://www.cdc.gov/osels/ph_surveillance/.

Resources

1. Aronson, S. S., T. R. Shope, eds. 2013. *Managing infectious diseases in child care and schools: A quick reference guide*. 3rd ed. Elk Grove Village, IL: American Academy of Pediatrics.
2. Pickering, L. K., C. J. Baker, D. W. Kimberlin, S. S. Long, eds. 2009. *Red book: 2009 report of the Committee on Infectious Diseases*. 28th ed. Elk Grove Village, IL: American Academy of Pediatrics.

Caring for Sick Children

When children get sick after the daily health check

Young children enrolled in child care have a high incidence of illness such as upper respiratory tract infections, including ear infections and other temporary conditions such as rash, diarrhea and asthma that may not allow them to participate in the usual activities. Most child care settings will need to provide at least temporary care for ill children. If a child becomes ill during the day after the daily health check, providers can help manage the illness and keep the child comfortable until a designated adult arrives.

1. Monitor children for:
 - a. Participation in activities.
 - b. Need for additional care.
2. If participation decreases or need for care increases, then check for other symptoms.
3. If other symptoms are present:
 - a. Make a decision about exclusion.
 - b. Notify parent or designated family member.
 - c. Care for the child until parent or family member arrives.

Basic issues for decision making:

- Set policies and know when to be flexible.
- Prepare families for inevitable illnesses ahead of time.
- Review the inclusion and exclusion criteria in the program's written policies with families upon enrollment.
 1. Make clear to family members that designated program staff members (not families) make the decision about whether children who are ill may stay.
 2. Such decisions are based on inclusion and exclusion criteria and the staff member's ability to care for the child who is ill without compromising the care of other children in the program.
- Develop procedures for handling children's illnesses, including care plans.
- Only ask for a health care provider's note to readmit a child if the health care provider's advice is needed to determine whether the child is a health risk to others or to provide information about special care the child requires.

When you consider whether to keep a mildly ill child at your child care setting ask these questions:

- Do you have sufficient staff (including volunteers) to change the program for a child who needs some modifications such as quiet activities, staying inside or extra liquids?
- Are staff willing and able to care for a sick child (wiping a runny nose, checking a fever, providing extra loving care) without neglecting the care of other children in the group?
- Is there a small space where the mildly ill child can rest if needed?
- Are parents able or willing to pay extra for sick care if other resources are not available, so that you can hire extra staff as needed?
- Have parents made arrangements prior to illness for pick up and care of ill children if they are not available?

Temperature tips

While you can tell if the child is warmer than usual by feeling his or her forehead, only a thermometer can tell if there is a fever. Even if the child feels warmer than usual, you do not need to check the temperature unless he or she has other signs of illness.

Always use a digital thermometer to check the child's temperature. Mercury thermometers should not be used. Temperature readings may be affected by how the temperature is measured and other factors.

Devices to measure body temperatures include thermometers intended for use in the mouth or armpit, and more recently developed devices that measure the temperature in the ear canal or the skin that overlies an artery next to the outside corner of the eye. The following 3 types of digital thermometers are listed below. While other methods for taking the temperature are available, such as pacifier thermometers or fever strips, they are not recommended at this time.

Type*	How it works	Where to take the temperature	Age	Notes
Digital multiuse thermometer 	Reads body temperature when the sensor located on the tip of the thermometer touches that part of the body. Can be used orally, or axillary.	Oral (in the mouth) Axillary (under the arm)	4 to 5 years and older Birth to 3 years Least reliable, technique, but useful for screening at any age	Label thermometer "oral" or "axillary". Don't use the same thermometer in both places. Taking an axillary temperature is less reliable. However, this method may be used in schools and child care centers to check (screen) a child's temperature when a child has other signs of illness. the temperature is used as a general guide.

Temporal artery



Reads the infrared heat waves released by the temporal artery, which runs across the forehead just below the skin.

On the side of the forehead

3 months and older
Before 3 months, better as a screening device than armpit temperatures

May be reliable in newborns and infants younger than 3 months according to new research.

Tympanic



Reads the infrared heat waves released by the eardrum.

In the ear

6 months and older

- 1. Not reliable for babies younger than 6 months.
- 2. When used in older children it needs to be placed correctly in your child's ear canal to be accurate.
- 3. Too much earwax can cause the reading to be incorrect.

Resources

1. <http://www.healthychildren.org/English/health-issues/conditions/fever/Pages/How-to-Take-a-Childs-Temperature.aspx> - How to Take a Child's Temperature
2. Aronson, S. S., T. R. Shope, eds. 2013. *Managing infectious diseases in child care and schools: A quick reference guide*. 3rd ed. Elk Grove Village, IL: American Academy of Pediatrics.
3. Health and Safety in the Child Care Setting: Prevention of Infectious Disease. A Curriculum for the Training of Child Care Providers – Module 1, Second Edition. Developed by The California Child Care Health Program 1322 Webster Street, Suite 402 Oakland, CA 94612-3218. June 1998.
4. Good Health Handbook: A Guide for Those Caring for Children, Oklahoma State Department of Health, Maternal and Child Health Service, 2011.

Medication Administration

Administration and storage of medication in child care

If you care for children, it is likely that you will care for a child with an acute or chronic health condition that requires giving medication. It is important to develop plans to assure that medications are given safely and stored correctly, and to seek advice when needed. All staff who work with children should have training on medication storage and administration practices as found through the American Academy of Pediatrics *Healthy Futures: Improving Health Outcomes for Young Children, Medication Administration in Early Education and Child Care Settings*. <http://www.healthychildcare.org/ParticipantsManual.html>

Medication should be given at home whenever possible, but there will be times when it must be given to the child while attending the child care program. Guidelines for each child care provider in Oklahoma must reflect current state regulations. Medications are given in child care to:

- Maintain the health of the child.
- Allow a child who is not acutely ill to attend the program.
- Comply with state and national laws, regulations, and best practice.

There are **three categories** of medications that are given to children in the child care setting:

Typical and routine medications	Medications for regular treatment of a chronic health condition	Emergency medications
Acetaminophen Ibuprofen Antibiotics	Asthma inhalers Insulin for children diagnosed with diabetes Medication for children diagnosed with seizures	Epinephrine auto injector for management of life threatening allergies Glucagon for management of severe low blood sugar Diastat for management of severe seizure

There are **three basic types** of medication:

Prescription	Over the counter	Non-traditional (alternative medicines)
Can only be prescribed by a health care provider such a M.D., D.O. Nurse Practitioner or Physician Assistant Is dispensed by a licensed pharmacist	Can be purchased without a prescription and includes vitamins, acetaminophen, antihistamines, mild cortisone cream, or ibuprofen Many do not have dosing information for children under the age of 24 months	Herbal (made from plants or plant parts) Homeopathic (made from plants, minerals, or animals) These are purchased as over the counter medications without specific written orders from a health care provider.

All medications must be given according to the prescription or product label directions. Permission and instructions must be provided by the parent for each medication. Instructions should not conflict with the label directions and should be filed in the child's record.

The child care provider must have a plan in place to record administration of medication and to inform the parent of daily medication administration. When the medication is no longer needed, all remaining medication is returned to the parent.

Resources

American Academy of Pediatrics, Healthy Child Care American: Medication Administration in Early Education and Child care Settings, 2013. <http://www.healthychildcare.org/ParticipantsManual.html>

Key points for medication administration

- **ALWAYS WASH YOUR HANDS BEFORE ADMINISTERING ANY TYPE OF MEDICATION!**
- Medication must be provided by the parent in the original container and clearly labeled with the child's name and directions.
- Medication is accompanied with written dated permission from the parent, giving the exact dosage and times to be administered.
- It is helpful to assign one person to give all medications to avoid omissions and duplications. The person who administers the medication should record the time given, initial or sign, and have the form readily accessible to parents.
- Make sure all medication brought to the child care facility has a label with the child's name, the date, and the name of the medication.
- Medication should only be administered to the child for whom it is intended.
- All medications are stored separately from food and kept in a safe place out of children's reach.
- Medication is either returned to the parent or disposed of properly when it is out-of-date or the child has withdrawn from the facility.

Safeguards to prevent errors

- Consult with the parent, pharmacist or health care provider if uncertain about the next dose.
- Assign a staff member to administer medications at the right time.
- If a medication is crucial and was left at home, ask the parent to return home and get medication before the child is admitted for the day.
- Establish a system to ensure that medications are returned each day for the family to use at home. (Some pharmacies will divide the prescription into two containers – one for home and one for child care or school.)
- Develop a system to alert staff members that a child has medication.
- Use measuring devices such as medicine caps or oral syringes for liquid medications, rather than household utensils.
- If a medication error is made, notify the parent immediately and consider seeking advice from the child's pharmacist or health care provider. Also fill out a Medication Incident Report.

Remember the Five R's

1. **Right child** – check the name on the medication label to be sure the name on the label is the name of the child receiving the medication.
2. **Right medication** – read the label when receiving the medication and read it again when measuring out the medication for the child.
3. **Right dose** – read instructions for amount of dosage, and measure with an accurate measuring device.
4. **Right route (*mouth, nose, ears, airway, etc.*)** – read label and instructions to verify the route. For example; ointments and drops can go in the nose, ears, or eyes.
5. **Right time** – read instructions for time of administration of medication. Check with parent to see when the last dose was given to be sure when the next dose is due.

Always check:

- **Parental Permission** - must be in writing and filed in child's record.
- **Medication Label** – must have the child's name, dosing instructions, special instructions.
- **Parent Notification** – use standard form to notify parents of medication given.
- **Allergies and Reactions** – check before giving medication if the child has allergies and watch for reactions afterward.

Contact the child's parent if:

- The child vomits the medicine.
- You are unable to get the child to take the medicine, or are unable to administer the medication.

The parent will probably need to contact the child's health care provider.

Remember that when you administer medication, you are accepting responsibility for knowing the appropriate actions to take if a major adverse reaction occurs. It is a good policy to require parents to administer the first dose of a new medication at home so they will be aware of the child's reaction.

Bedbugs

What are bedbugs?

Bedbugs are small, oval-shaped, wingless, brownish, flattened insects that feed on human blood by biting through the skin. They get their name because they like to live and feed in beds, mainly at night.

What are signs or symptoms?

- Itchy insect bites that often occur in a row, on areas of skin that are exposed during the nights.
- Bites often have a red dot where the bite occurred in the middle of a raised red bump.
- Bites typically occur on face, neck, arms, and hands.
- Look for specks of blood, rusty spots from crushed bugs, or dung spots the size of a pen point on bedsheets and mattresses.
- Look for reddish/brown live bugs, about 1/8 of an inch, in crevices or seams of bedding.

Are they contagious – how are they spread?

- Bedbugs do not reproduce on humans like scabies or lice. They bite humans at night, and hide in cracks or crevices on mattresses, cushions, or bed frames during the day.
- Children or staff may bring bedbugs to school in book bags, backpacks and clothes.
- Bedbugs do not spread on people – they are not a sign that people are dirty. They feed on people and may hide in their belongings or clothing and that is a way they may spread to others in a group care setting.

How do you control them in a group setting?

- Avoid overreacting. One bedbug is not an infestation. It is not necessary to send a child home.
- Educate staff members and families about bedbugs.
- Reduce clutter and limit items that travel back and forth between homes and the facility.
- Seal cracks. Clean up any bedbug debris with detergent and water.
- Provide enough space between coat hooks so each child's belongings do not touch those of another child.
- Empty and clean cubbies, lockers, and child storage areas at least once every season.
- Extermination involves vacuuming and one of the following approaches:
 - Application of the least toxic products (preferably bio-based).
 - Heat the living area to 122 degrees for about 90 minutes.
 - Freeze infested articles, or (if necessary) use synthetic chemical insecticides.
- Launder bedding and clothing (hot water and hot drying cycle for 30 – 60 minutes).
- Vacuum with special attention to cracks and crevices in furniture, equipment, walls, and floors. Dispose of the vacuum cleaner filter and bags in a tightly sealed plastic bag.

Campylobacter

What is it?

Campylobacter infection is a contagious disease caused by bacteria. The intestinal infection usually causes diarrhea.

What are the signs or symptoms?

- Major symptom is diarrhea
- Stomach cramps
- Fever
- Nausea and vomiting
- Generally “not feeling well”

The bacteria can be identified through a stool culture.

How long does it take from exposure to development of Campylobacter?

Symptoms usually start two to five days after infection.

When is it contagious?

Campylobacter infections should be considered contagious from a few days to several weeks, after being infected.

How is it spread?

Eating food or drinking water, contaminated by the feces (stool) of infected people or animals (fecal-oral), spreads the bacteria. Hand washing before and after food preparation limits this kind of spread.

What should be done?

- Isolate the child if there is diarrhea with illness, fever, or vomiting, or if the stool is not contained in the diaper, or is causing toileting accidents.
- Notify the parents to pick up the child.

When can the child be re-admitted?

The child can be readmitted upon approval from health care provider or the local health department.

What can be done to prevent the spread of Campylobacter?

- Wash hands properly with soap, after each diaper change and bathroom use.
- Clean all diaper changing surfaces with soap and water, then disinfect with a U.S. Environmental Protection Agency (EPA) registered disinfectant, such as a bleach solution.
- Teach children to wash hands.
- Always refrigerate meat products.
- Carefully wash hands before and after preparing foods.

Who should be notified?

Notify the local health department. They will provide you with further information.

Chickenpox

What is it?

Chickenpox is a contagious disease caused by the Varicella-Zoster virus.

What are the signs or symptoms?

The four stages of the rash are:

- A red bump
- A clear blister appears on top of the bump
- The clear blister becomes a pustule (its content becomes gray)
- The pustule dries into a crust

They appear in crops, over a period of up to four days. Several stages may be present at the same time. The child may have bumps, blisters, and pustules up to four days. They may leave permanent scars, especially if the blisters get infected by bacteria. Fever can be anywhere from none to very high, and may appear a few days before the rash.

How long does it take, from exposure to development of the disease?

Two to three weeks.

When is it contagious?

From five days before the rash appears until six days after the appearance of the first crop of blisters, or until the spots are all dried and crusted, whichever is longer.

How is it spread?

The virus is spread by droplets from the nose, mouth or throat, usually expelled by a cough or sneeze. It can also be spread by direct contact, such as eating, drinking, or sharing personal items, or from the fluid from the blisters of an infected child (respiratory and direct contact spread). The scabs are *not* contagious.

What should be done?

- Isolate the child from the other children.
- Notify the parents to pick up the child.
- Wash articles soiled by discharge from the nose, throat, and blisters.

- Watch closely for early symptoms in others for up to three weeks.

When can the child be re-admitted?

The child can be readmitted six days after the appearance of the first crop of blisters, or when all blisters are scabbed over and dry.

What can be done to prevent the spread of Chickenpox?

- *Make sure all children have received the Varicella vaccine between 12 and 15 months.*
- Anyone coughing or sneezing should cover his or her nose and mouth.
- Do not allow eating or drinking after others.
- Careful hand washing may help prevent the spread.

Common Cold (Upper Respiratory Infections)

What is it?

The common cold is a mild infection of the upper respiratory tract (nose, throat, ears, and eyes) which is caused by over 100 different types of viruses. The most common of these is the rhinovirus (nose virus).

What are the signs or symptoms?

Runny or stuffy nose, sneezing, coughing, watery eyes, mild sore throat, and sometimes chills and fever.

How long does it take from exposure to development of a cold?

Between 12 and 72 hours.

When is it contagious?

For about two days before symptoms begin and during the first five days of illness.

How is it spread?

Colds are spread by coughing and sneezing and by contact with contaminated hands, tissues, and other articles soiled by nose and throat discharge (respiratory and direct contact spread).

What should be done?

- No specific treatment is available. Nothing can shorten the duration of a cold.
- Ibuprofen or Acetaminophen-containing medications should be used only if the child has a fever, sore throat, or muscle aches, and you have written parental permission.
- **Do not give Aspirin.** Aspirin appears to increase the risk of Reye's syndrome; a serious disorder characterized by sleepiness and vomiting that can lead to coma and death.

Should people with this illness be excluded?

There is no need to exclude these children and staff if they feel well enough to attend and do not require more care and attention than the program can provide.

What should be done to prevent the spread of the common cold?

- Make sure all children and staff use good hand washing practices.
- Wipe noses with clean tissues, dispose of them properly and wash your hands.
- Don't share food, cups, bottles, or toothbrushes.
- Don't kiss children on the mouth.
- Teach children to cough into their elbow and away from people.
- Open windows and maximize outdoor play.
- Keep the environment clean.
- Limit physical contact between young infants and infected children.

Who should be notified?

Because the common cold is very common and is not considered dangerous, it is not necessary to notify all parents of every exposure.

Conjunctivitis (Pink Eye)

What is it?

Conjunctivitis or pink eye is a common, mild eye infection or irritation. It can be caused by germs (infectious conjunctivitis) and often occurs with a cold or ear infection. Allergies, chemicals or irritants can also cause it.

What are the signs or symptoms?

- It involves one or both eyes and usually lasts three to five days.
- The white parts of the eyes become pink and the eyes produce lots of tears and discharge.
- Eyes can be itchy, sore, and sensitive to light.
- In the morning the discharge may make the eyelids stick together. Bacteria usually cause thick yellow or green pus.

How long from exposure until the disease develops?

One to three days.

When is it contagious?

As long as discharge is present, the child should be considered contagious.

How is it spread?

It is spread by direct contact. Children often pass the infection by rubbing their eyes then touching someone or something. Conjunctivitis can also be spread when staff wash, dry, or wipe a child's face and then use the same washcloth on another child's face.

Exclude from group setting?

No, unless:

- The child meets other exclusion criteria, such as fever or behavior change.
- The child is unable to participate and the caregiver cannot care for the child without compromising the health and safety of the other children.

What should be done?

- Notify parents if child develops a fever and is unwilling to participate in activities. Encourage a visit to the child's health care provider.
- Practice frequent hand washing, especially when wiping a child's face or eyes.
- If the disease is determined to be bacterial in origin, the other parents should be notified that pink eye has occurred and encourage them to watch closely for signs of the illness in their children.

When can the child be re-admitted?

- When exclusion criteria are resolved and the child is able to participate in activities.
- For bacterial conjunctivitis – 24 hours after antibiotic treatment has begun.

What can be done to prevent the spread of pink eye?

- Encourage the child not to rub his or her eyes.

- Keep children's eyes wiped free of discharge and always wash your hands after wiping a child's eyes.
- Use disposable tissues and towels.
- Teach children to wash their hands after wiping their eyes.

Cradle Cap (Seborrhea)

What is it?

- Cradle Cap is an oily, yellow scaling or crusting on the scalp.
- It is common in babies and is easily treated.
- It most often affects the scalp, but can also occur on the forehead, eyebrows, and the creases behind the ears.
- Cradle cap is not part of any illness and does not imply that a baby is not well cared for.

What causes cradle cap?

Cradle cap is the normal buildup of sticky skin oils, scales, and sloughed skin cells.

How is cradle cap treated?

Home treatment is usually all that is needed.

- An hour before shampooing, rub baby's scalp with baby oil, mineral oil, or petroleum jelly to help lift the crusts and loosen scales.
- When ready to shampoo, first wet the scalp, and then gently scrub the scalp with a soft-bristle brush (a soft toothbrush works well) for a few minutes to remove the scales. You can also try gently removing the scales with a fine-tooth comb.

Then wash the scalp with baby shampoo, rinse well, and gently towel dry.

When is it time to contact a health care provider?

If the above measures do not work, talk to a health professional before using a dandruff shampoo, such as *Selsun Blue*, *Head and Shoulders*, or *Sebulex*. If these products get in your baby's eyes, they can cause irritation. The health care provider may prescribe other medications.

Cradle cap is not harmful to baby and usually goes away by baby's first birthday.

Cytomegalovirus (CMV)

What is it?

Cytomegalovirus (CMV) is a common virus that infects most people at some time during their lives but rarely causes illness.

What are the signs or symptoms?

Most children and adults who are infected with CMV do not become ill. Those who do may have fever, swollen glands, and feel tired. Immuno-compromised people (such as AIDS patients or those receiving cancer treatments) may have a more serious illness such as pneumonia.

How long does it take from exposure to development of the disease?

CMV may remain in the body throughout the person's lifetime. The virus may be found in the urine or saliva of infected people who may or may not be ill. The person is contagious as long as the virus is shed.

How is it spread?

CMV is spread from person to person by direct contact. It can be found in the urine, saliva, breast milk, blood, semen, and possibly in other body fluids. The virus can spread from an infected mother to her fetus or newborn baby. Children aged one to three years shed CMV in highest rates.

What is the treatment for CMV infections?

There is usually no treatment for CMV infections.

Should an infected person be excluded from school or work?

There is no reason to exclude a child from care because the program probably has other children and also staff who have CMV.

What precautions should pregnant women take?

Pregnant women should carefully wash their hands after handling wet diapers or having contact with urine or saliva. CMV can cause problems for pregnant women. If a woman gets CMV for the first time, while pregnant, the risk of disease in the fetus is greater. Young women who may be or may become pregnant should ask their health care provider about CMV. It is recommended that pregnant staff members not work in classrooms with young children still in diapers.

What can be done to prevent the spread of CMV?

- Good hand washing is the best way to prevent infection with CMV.
- Disinfect toys and surfaces in toddler and infant rooms daily or more frequently, if needed.

Diarrhea

What is it?

Diarrhea is an illness in which someone develops more watery and frequent stools than is typical for that person. Diarrhea can be caused by changes in diet, an allergy to certain foods, food poisoning, emotional upset, or the use of some medications. Sometimes diarrhea is a contagious disease caused by a virus, bacteria, or parasite.

What are the signs or symptoms?

- Frequent loose or watery stools
- Abdominal cramps and tenderness
- Fever
- Generally not feeling well
- Blood in stool

Following are some of the organisms known to cause diarrhea:

• Rota-Virus • Norwalk Virus • Hepatitis A Virus • Salmonella • Giardia	• Shigella • Campylobacter • Clostridium Difficile • E-coli
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How long does it take from exposure to development of disease?

After exposure, another person may develop diarrhea from one day to weeks later, depending on the specific infection.

When is it contagious?

Most infectious diarrhea caused by a virus is contagious one to two days before the start of symptoms and may continue to be contagious for a few days after the diarrhea has ended. Diarrhea should always be considered contagious until a health care provider determines that it is not.

How is it spread?

- Diarrhea is spread by the fecal-oral route. Fecal-oral means the germs in one person's bowel movement wind up in another person's mouth, usually by way of unwashed hands.
- Water or food contaminated by human or animal feces.
- Contact with raw or undercooked poultry.
- Contact with animals in the child's environment or during trips to sites with animals.

Exclude from group settings if:

- Stool is not contained in the diaper, or diarrhea is causing accidents for children who don't wear diapers.
- Stool frequency exceeds two or more above normal for that child.
- Stool is all black, or there is blood or mucus in stool.

What should be done?

- Notify the parent of the child.
- The most important treatment for a young child with diarrhea is to replace fluids.
- With the first signs of diarrhea, the child should be encouraged to drink small amounts of clear fluids frequently.
- If the child has other signs of illness, such as fever or vomiting, or the diarrhea is frequent and the child is less than two years old, have the parent contact the child's health care provider for specific recommendations.
- If the child has an appetite it is advisable to offer a normal diet but provide extra fluids.
- **If the onset is abrupt and the diarrhea is severe with evidence of blood or high fever, an immediate visit to the child's health care provider is necessary.**

When can the child be re-admitted?

- Once stool frequency has reduced to fewer than two stools above normal for that child, even if the stools remain loose.
- Once diapered children have their stool contained by the diaper and when toileting children do not have toileting accidents.
- Once child is well-hydrated.
- When the child is able to participate and staff members determine they can care for the child without compromising their ability to care for the health and safety of the other children in the group.

What can be done to prevent the spread of diarrhea?

1. Hand washing is the most important line of defense for both caregivers and children in preventing the spread of diarrhea. Staff and children wash their hands:
 - Upon arrival at the child care facility.
 - After returning from playing outdoors.
 - After using the toilet or helping a child use the bathroom.
 - After each diaper change.
 - Before and after preparing, serving, or eating food.
2. Disinfect toys, bathrooms and food preparation surfaces daily.
3. Use disposable paper towels for hand washing.
4. Use disposable table liners on changing tables and wash and disinfect tables after each use.

Who should be notified?

- Notify parents of children who have been in direct contact with a child who has diarrhea. Parents should contact their child's health care provider if their child develops diarrhea.
- Notify the local health department if two or more children in one child care facility have diarrhea within a 48-hour period.
- Also notify the local health department if you learn that a child in your care has diarrhea due to *Shigella*, *Campylobacter*, *Salmonella*, *Giardia*, *Cryptosporidium*, or *E coli*. A health care provider or public health official must clear the child for readmission in these cases.

Diphtheria

What is it?

Diphtheria is a serious bacterial disease which is spread person to person by infected secretions. Diphtheria causes inflammation of the throat, nose and tonsils, and a high fever. It can interfere with swallowing and cause blockage of the airway, making it impossible to breathe. It frequently causes heart and nerve problems.

In the 1920's, diphtheria was a major cause of illness and death for children in the U.S. Although it is rare in the U.S. today, it appears that the diphtheria bacteria continue to pass among people. Diphtheria is common in other parts of the world. With the increase in international travel, diphtheria and other infectious diseases are only a plane ride away.

What are the signs or symptoms?

- The symptoms of diphtheria vary depending on what part of the body is infected.
- The most common infection occurs in the throat and tonsils causing symptoms from a slight fever, chills, and sore throat to a severe feeling of general illness.
- Other symptoms which might occur include hoarseness, barking cough, runny nose, scaly rash, and open skin sores.

When is it contagious?

Usually an infected person is able to spread diphtheria for two to four weeks after symptoms develop. The rare chronic carrier (a person with continual infection) may be infectious for six months or longer.

How is it spread?

Diphtheria is spread through the air from the mouth, throat, or nose of an infected person through coughing or sneezing. Rarely, diphtheria is spread by contact with articles soiled with discharges from skin sores of an infected person.

What should be done?

- Antibiotics and antitoxin are used to treat diphtheria.
- The patient may also need help in breathing.
- Often the patient should be isolated.
- People who live in the same household as a person with diphtheria and people who have close, habitual contact with a diphtheria patient should receive treatment.

When can the person be re-admitted?

The person can return to the program after being treated, with permission from a health care provider.

What can be done to stop the spread of Diphtheria?

The best way to **stop the spread of diphtheria** is to **immunize**:

- A child needs 4 doses of DTaP (diphtheria, tetanus, pertussis) vaccine by two years old.
- A child should receive a DTaP booster sometime between four and six years old.
- A child should receive a Tdap booster sometime between 11 to 12 years old.

- Td (tetanus and diphtheria) is recommended for all adults every 10 years.
- One dose of Tdap should be substituted for one dose of Td for adults.

Who should be notified?

Notify your local health department if someone in your program has this disease. They will provide you with further information.

Ear Infection (Otitis Media)

What is an ear infection?

Infection of **the middle ear**, or *otitis media*, is an infection of the part of the ear behind the eardrum.

- It is usually a complication of an upper respiratory infection, such as a cold.
- It can be acute (new), chronic (persistent), or serious (associated with fluid that does not contain germs).
- Otitis media is more common in young children because the tube that connects the middle ear to the nasal passages is very short and straight, making it easy for bacteria in the mouth and nasal passages to reach the inner ear.
- Most ear infections are caused by bacteria.

What are the signs or symptoms?

- Pain inside the ear or when moving the earlobe
- Repeated tugging at the ear
- Irritability or fussiness
- Crying
- Poor feeding
- Disturbed sleep
- Fever
- May have ear drainage

Who gets it and how?

- Middle ear infections are common in children between the ages of one month and six years, and most common under age three.
- Some children develop ear infections a few days after a cold starts.
- Conditions that increase a child's risk of ear infections are:
 1. Frequent colds
 2. Bottle propping
 3. Exposure to smoke
 4. Attendance in a child care program.

Effects of ear infections

- If an ear infection does not clear up quickly, or does not respond to treatment, a temporary hearing loss can occur.
- A hearing loss for only two or three months may impair a child's language and learning.
- A ruptured eardrum or other serious complications can also occur.
- The age of birth to three years is a very important period of development.
- A child that has many ear infections may hear muffled speech.
- This may affect his ability to repeat sounds and words in order to learn normal speech and may delay language development.

Other signs

- A child frequently doesn't look up when someone enters the room.
- The child doesn't hear you call, but a nearby friend does.

Exclude from group setting?

Since ear infections themselves are not contagious, there is no reason to exclude a child with one from your program unless they have a high fever or cannot participate in activities because of pain.

How to prevent ear infections

- Prevent the spread of colds and other upper respiratory infections which may lead to otitis media.
- Breastfeeding reduces the number of ear infections so remember to support your breastfeeding moms.
- Make sure all children and staff use good hand washing practices.
- Don't allow children to share food, utensils, or toothbrushes.
- Wash toys regularly, especially the ones that young children put in their mouths.
- Do not bottle-feed infants lying on their backs. Keep infants upright or inclined while feeding. The liquid can back up into the Eustachian tube, creating a breeding ground for bacteria.
- Provide a smoke-free environment.

Be alert for any sign of hearing or speech problems that may develop. Refer the child to his or her health care provider.

Ebola

What is it?

Ebola is a serious illness caused by infection with the Ebola virus. It is a severe, often fatal disease in humans and non-human primates (such as monkeys, gorillas, and chimpanzees).

What are the signs or symptoms?

- Fever
- Severe headache
- Muscle pain
- Vomiting
- Diarrhea
- Stomach pain
- Unexplained bruising or bleeding

How long does it take from exposure to development of the illness?

Symptoms may appear anywhere from 2 to 21 days after exposure, although 8 to 10 days is most common.

How is Ebola Spread?

Ebola virus is spread through direct contact with the blood or body fluids (including but not limited to feces, saliva, sweat, urine, vomit, breast milk, and semen) of a person who is sick with Ebola. The virus in blood and body fluids can enter another person's body through broken skin or unprotected mucous membranes in, for example, the eyes, nose, or mouth.

- Ebola virus is not spread through air or by water, or by any food grown or approved for consumption in the United States.
- You cannot be infected by someone who has been exposed to Ebola but does not have symptoms.

Who is at Risk?

Health workers and the family and friends in close contact with Ebola patients are at highest risk because they may come in contact with the blood or body fluids of sick patients while caring for them.

Children are at greater risk from seasonal influenza (flu) than they are from the Ebola virus.

What Can Child Care Providers Do to Help?

Prevention: Child care providers should continue to use good infection control practices. The same steps that prevent the spread of many other diseases help to prevent Ebola transmission:

- Wash hands often with soap and water for 20 seconds.
- Avoid touching eyes, nose and mouth with unwashed hands. Avoid close contact such as kissing, hugging, and sharing cups or eating utensils with people who are sick.

- Proper cleaning of equipment, toys, and surfaces such as countertops, doorknobs, sinks, and toilets help to prevent the spread of illnesses.
- Child care providers should separate soiled bedding from cribs, mats, cradles, or cots from other used laundry to avoid contamination. Soiled bedding should be washed separately using regular “hot” or “cold” washing cycles and regular drying cycles.
- Child care providers should wear gloves in cases where they may come into contact with blood or body fluids (e.g., treating a scrape or changing a diaper), and these gloves should be removed and disposed of properly to avoid contact. After removing gloves, staff should wash their hands again.
- Child care providers should follow their standard protocols for dealing with sick children. Children with a fever, vomiting, or diarrhea should remain home until they no longer have symptoms.
- Providers can also help by sharing prevention information with the families they serve.
- **Support Child Care Staff:** In the unlikely case that center-based staff had contact with an Ebola patient, these employees may be asked by public health authorities to stay at home for 21 days. Providers should review their staffing plans to ensure adequate coverage, if needed. In the unlikely case that home-based providers have had contact with an Ebola patient and are asked by public health authorities to remain at home, they should refrain from caring for children during this period.

Reduce Stigma: Stigma can occur when people link a disease with a certain group of people, even though not everyone in that group is at risk for the disease. Children and families are not a threat simply because they have connections to West Africa. Remember – Ebola is caused by a virus – not a person – and the virus is difficult to transmit.

Child care providers that serve families with ties to West Africa can be helpful as a source of support and community connection. All people who have traveled to an affected country or may have had exposure to an Ebola patient should be undergoing monitoring with support of their local public health department. Providers can support families undergoing monitoring and encourage them to call the local health department if they begin showing any symptoms, such as an elevated fever.

In the unlikely case that a child or staff member is asked by public health authorities to remain at home, providers should stress that if individuals do not develop Ebola symptoms during the 21-day monitoring period they do not have Ebola and pose no risk when they return afterwards.

Reduce Children’s Fears: Even young children may be exposed to media reports or overhear adults discussing Ebola. These steps may help child care staff support children who are coping with Ebola-related fears

- Be cautious about discussing Ebola where children may overhear. Limit children’s exposure to media reports on the disease.
- If children have questions, make time to listen to their concerns and answer their questions.
- Be honest. Answer questions based on the facts.

- Speak in a calm tone of voice. Use reassuring words and remind children their parents, providers, and other adults in their life are working together to keep them safe and healthy.
- Keep all explanations age-appropriate.
- Be clear about the differences between images they may have seen of West African countries and the situation in the United States.
- Reinforce hand washing and other disease prevention steps that children can take themselves. Good hygiene steps are not only beneficial for children's health, they also help children feel empowered and able to make a difference.

Support is Available for Providers and Parents, Too

Child care providers and parents may feel stress or worry associated with Ebola, especially if there are cases identified in their communities. Immediate, confidential, and free crisis counseling is available to people concerned about Ebola virus reports through the [Disaster Distress Helpline](#) (1-800-985-5990 and TTY for Deaf individuals: 1-800-846-8517). [Tips on Coping with Stress during Infectious Disease Outbreaks](#) are also available online.

This information is from the Office of Human Services Emergency Preparedness and Response at the Administration for Children and Families, U.S. Department of Health and Human Services.

***E. coli* (*Escherechia coli*), Toxin-producing**

Also called Shiga toxin-producing *E. coli* (STEC), *E. coli* O157:H7, *E. coli* O111, etc.

What is it? Many forms of *E. coli* are harmless and part of normal intestinal bacteria. Some types, called STEC, can cause mild to severe disease. It can even affect the kidneys and other organs.

What are the signs or symptoms? The symptoms are mild to severe diarrhea, which may be watery or bloody.

How is it spread? *E. coli* is in the stool (feces) of animals and people who are ill. Animals that can carry it without having symptoms include certain farm animals (cows, sheep, goats or deer).

How long does it take from exposure until the disease develops? The time ranges from 2 to 10 days, usually 3 to 4 days.

When is it contagious? It can be spread in the feces until up to three weeks after diarrhea starts in children (usually one week in adults). It is very easily spread within households, in child care settings, and in group living facilities.

What should be done? When a child has diarrhea, remove him or her from contact with others and call the parents to take the child home when:

- Stool is not contained in the diaper, or diarrhea is causing accidents for children who don't wear diapers.
- Stool frequency exceeds two or more above normal for that child.
- Stool is all black, or there is blood or mucus in stool.

If diarrhea persists, the child should be taken to see a healthcare provider.

How is it treated? There is not a specific medication to treat *E. coli* infections, but fluids and other supportive care will help the person recover.

When can the child be re-admitted? When a laboratory confirms one of the STEC types of *E. coli* in a patient, the health department is notified. The health department then works with the parent to determine when it is safe for the child to return. The child should be free of diarrhea for at least 24 hours, plus have two lab tests that are negative for STEC before returning to the child care setting.

What can be done to prevent the spread of *E. coli*?

- Focus on thorough hand hygiene at appropriate times for children and employees.
- Supervise children in hand washing after using the bathroom and before meals.
- Eliminate access to shared water play areas.
- Follow safe food handling practices.
- Clean and disinfect diaper-changing surfaces after each use.

Who should be notified? Certain types of *E. coli*, specifically the ones causing STEC will be reported to the health department, and an investigation will take place. If you have a question about a child's illness, contact the Acute Disease Service Epi-on-call at 405-271-4060 to discuss the situation and determine any recommendations.

Fever

What is fever?

A fever is an elevation of the normal body temperature. Fever is most commonly the body's natural response to an infection caused by virus or bacteria.

It is generally accepted that a temperature of **100.4 degrees F or more in a young infant** or **101 degrees F in older infants and children** is *a fever* no matter what method you use to take it.

Factors that can cause a mild elevation in body temperature

- Exercise – including active play and exertion
- Time of day (late afternoon)
- Teething
- Environmental temperature caused by –
 - A hot room
 - A hot day
 - Child bundled up excessively

These factors do not represent a true fever.

Other signs of fever

- The skin appears flushed.
- Fatigue – child is tired and listless.
- Child is irritable.
- Child has a decreased appetite.
- A child's forehead or abdomen may feel quite warm, but taking the temperature is the only way to know for sure if there is a fever.

The Do's and Don'ts for a child who has a fever

- **DON'T** use ice packs or alcohol rubs. These can bring the fever down too quickly and cause problems. These methods are also very uncomfortable for a child.
- **DO** use lukewarm water to cool him or her down if the child is uncomfortable. Offer cool fluids, popsicles or slushies made with crushed ice and clear 100 percent juice.
- **DON'T** give aspirin to children under the age of 12 years unless prescribed by a health care provider. Aspirin in children is associated with a sometimes deadly disease called Reye's syndrome.
- **DO** give Tylenol or Motrin if you have a medication administration policy, written parental permission, and written instructions from the health care provider. These medications generally help bring the fever down within 20 to 40 minutes.
- **DON'T** bundle children up in blankets or heavy clothing.
- **DO** allow children to cool down more easily with light clothing and covers.

When should a child with a fever be excluded from child care or sent home?

- If fever is noted in an infant younger than two months.
- If fever is associated with behavior change or other signs of illness.
- If the child is unable to participate and staff members determine they cannot care for the child without compromising their ability to care for the health and safety of the other children in the group.

What can be done to prevent the spread of the fever?

- Make sure all children and staff use good hand washing practices.
- Teach children to wash their hands after blowing their nose or coughing.
- Keep the environment clean.
- Do not allow sharing of mouthed toys, bottles, cups or pacifiers.
- Clean and disinfect toys and hard surfaces frequently. Mouthed toys should be cleaned and sanitized after each use, or removed until cleaning takes place.
- Open windows and maximize outdoor play.

Fifth Disease

What is it?

Fifth Disease is a contagious disease spread by a virus and it's also known as "Slapped Cheek." It is usually a mild rash illness of children. There is some risk to unborn babies, so if a pregnant woman is exposed to Fifth Disease she should consult her health care provider.

What are the signs or symptoms?

- A red rash that generally appears on the face giving a "slapped face" appearance.
- A low-grade fever.
- Rash may spread to the rest of the body.

How long does it take from exposure to development of Fifth Disease?

One to two weeks, but it may be that the first symptom will be the rash in two to three weeks.

When is it contagious?

People with Fifth Disease can spread the illness during the week before the rash appears. By the time the rash is seen, the virus can no longer be spread to others.

How is it spread?

The virus is spread by contact with airborne droplets produced by coughing or sneezing. These droplets may be inhaled by someone or touched by another person who then takes the droplets into their mouth.

What should be done?

There is no treatment and this is usually a mild illness. Treatment may be given to relieve some symptoms such as itching or fever.

When can the child be re-admitted?

The child does not need to be excluded, because by the time the rash appears, it is no longer contagious.

What can be done to prevent the spread of Fifth Disease?

- Make sure all children and staff use good hand washing practices.
- Keep the environment clean.
- Do not allow sharing of mouthed toys, bottles, cups or pacifiers.
- Clean and disinfect toys and hard surfaces frequently. Mouthed toys should be cleaned and sanitized after each use, or removed until cleaning takes place.
- Make sure the facility is well ventilated. Open windows and maximize outdoor play.

Who should be notified?

Notify parents of the child, as well as other parents and staff members. Pregnant women and parents of children who have a weakened immune system may want to consult their health care provider.

Flu (Influenza)

What is it?

The flu is a contagious disease caused by a group of respiratory viruses called influenza viruses. The flu mainly affects the respiratory tract (nose, throat, and lungs).

What are the signs or symptoms?

Symptoms of the flu include:

- Sudden onset of fever
- Headache
- Chills
- Muscle aches and pains
- Sore throat
- Nasal congestion
- Cough
- Decreased energy
- Abdominal pain
- Croup, bronchiolitis, or pneumonia

How long does it take from exposure until the disease develops?

Usually one to five days after exposure.

When is it contagious?

It can be spread from the day before symptoms begin, to four days afterwards.

How is it spread?

- It is spread when someone with the flu coughs, sneezes, or does anything that releases the nose and throat secretions outside their body.
- This can directly spread from one person to another, or someone can touch a surface or object that has been coughed on, and infect themselves by touching their eyes, noses or mouths.

What should be done?

When a child develops these symptoms, remove him/her from contact with others and call the parents to take the child home. If the symptoms continue at home, the child may need to be taken to see a health care provider.

How is it treated?

In certain circumstances, antivirals (NOT ANTIBIOTICS, which only treat bacteria) are prescribed by a health care provider.

When can the child be re-admitted?

The child can return when the fever has gone away for 24 hours without the use of any fever-reducing medication, and the other symptoms have improved enough that the child can participate in the usual activities.

What can be done to prevent the spread of flu?

These actions are all important in preventing the spread of flu:

- Encourage **annual flu vaccination of children and employees**, which prevents the flu in most cases. Even if the flu still happens, it is usually a much milder illness.
- Focus on thorough hand hygiene at appropriate times for children and employees.
- Teach children and employees to “Cover Your Cough” using a tissue (followed immediately by hand hygiene) or by covering their coughs or sneezes with their sleeves.
- People with flu symptoms should stay home until the fever has gone away for 24 hours without the use of any fever-reducing medication, and the other symptoms have improved enough to return to general activities.

Who should be notified?

The flu in just one person is not reportable to the state health department, but if even a small a group of people (children and/or adults) have the flu or symptoms of the flu near the same time, contact the Acute Disease Service Epi-on-call at 405-271-4060 to discuss the situation and determine any recommendations.

Comments: Flu can spread quickly in child care centers. During flu season, watch for symptoms of flu and call the health department as soon as you notice any increase in flu associated with your program.

Giardiasis

What is it?

Giardiasis is a chronic diarrhea illness caused by a parasite (*Giardia lamblia*). It is diagnosed by examining the stool for the parasites.

What are the signs or symptoms?

Some infected people have no symptoms. These people are called carriers. People who feel sick may experience some or all of the following:

- Foul-smelling greasy diarrhea
- Gas and bloating
- Abdominal cramping
- Nausea and vomiting
- Weight loss and weakness.

Bloody stools are not usually seen with *Giardia* infections. Animals such as beavers, cats, dogs, and cattle are infected the same way as humans.

How long does it take from exposure to development of Giardiasis?

After exposure, it usually takes one to two weeks to develop the illness.

When is it contagious?

As long as the organism is present in the stool. In most cases the germs will be completely gone in four to six weeks.

How is it spread?

- *Giardia* is spread from person to person when a person touches the stool or an object which has been contaminated by the stool of an infected person, and then ingests the germs.
- Infection is often spread by not properly washing hands after bowel movements, after changing diapers or before preparing foods.
- *Giardia* may also be transmitted through contaminated water, such as in water play tables.
- Outbreaks have also been linked to portable wading pools and contaminated water supplies.
- Drinking water from lakes, streams, or ponds that are contaminated by infected animals and humans can cause infection.

When should people with Giardiasis be excluded?

Exclude if there is diarrhea with illness, fever, or vomiting. After diarrhea resolves the person may return to child care.

How is it treated?

Most health care providers agree that persons with *Giardia* who are ill and/or have diarrhea should be treated with medication.

What can be done to prevent the spread of Giardiasis?

- Exclude any child or adult with acute diarrhea.
- Make sure that all children and adults practice good hand washing techniques.
- In a large child care facility, the person preparing food should not change diapers.
- In a small child care facility, the child care provider should carefully wash hands after changing diapers and before handling foods.
- If possible, keep diapered children apart from toilet trained children.
- Wash and disinfect toys that can be put in a child's mouth after each child's use.
- Use diapers that can contain liquid stool or urine.
- Make sure that diapers have waterproof outer covers or use plastic pants.
- Children should wear clothes over diapers.
- Wash children's hands before they use water play tables.

Who should be notified?

Notify the local health department. They will provide you with further information.

***Haemophilus Influenzae* Type b (HIB)**

What is it?

Hib is a type of bacteria that can cause infections of the ears, eyes, sinuses, epiglottis (the flap that covers the windpipe), skin, lungs, blood, joints, and coverings of the brain, and is a major cause of meningitis and permanent brain damage. These are very serious, ***sometimes fatal***, illnesses in susceptible children. Children in group settings are at higher risk of catching this illness.

What are the signs or symptoms?

Depending on the site of the infection, ***early symptoms*** may include:

- Sore throat
- Earache
- Fever
- Coughing
- Difficulty breathing
- Joint pain
- Skin lesions
- Headache

Symptoms that may appear suddenly:

- High fever
- Irritability
- Intense headache
- Nausea or vomiting
- Stiff neck

How long does it take from exposure to development of the disease?

Two to four days.

When is it contagious?

A person with Hib is contagious from the week previous to onset of symptoms until within 24 to 48 hours after starting effective antibiotic treatment.

How is it spread?

Hib can be spread from one person to another by coughing or sneezing, or by contact with mucus or fluids from the nose and throat of a person with Hib.

What should be done?

- Exclude children and staff that are ill with the disease until the local health department recommends they return.
- Exclude all children and staff exposed until preventive treatment has been given, if indicated and prescribed by a health care provider.
- **Hib infection is a vaccine-preventable disease.** Children should receive the vaccine according to the most recent immunization recommendations.

When can the child or staff member be re-admitted?

The child or staff member may return after being cleared by a health care provider.

What can be done to prevent the spread of Hib?

- To prevent disease make sure the children in your care (beginning from two months up to five years of age) are vaccinated.
- It is important to carefully observe those who are exposed, but who have not been vaccinated or completely immunized. Exposed children who develop an illness with fever need to be examined by a health care provider.
- All contacts should receive prophylaxis (preventive treatment), including those who have received the Hib vaccine.
- Make sure all children and staff use good hand washing practices.
- Keep the environment clean.
- Do not allow sharing of mouthed toys, bottles, cups or pacifiers.
- Clean and disinfect toys and hard surfaces frequently. Mouthed toys should be cleaned and sanitized after each use, or removed until cleaning takes place.

Who should be notified?

Notify the local health department. They will provide you with further information.

Hand, Foot, and Mouth Disease

What is it?

Hand, foot, and mouth disease (HFMD) is a viral infection caused by Coxsackie virus.

What are the signs or symptoms?

- Tiny blisters in the mouth and on the fingers, palms of hands, buttocks, and soles of feet that last a little longer than a week.
- Poor appetite – blisters in the mouth and throat make it difficult to eat or drink.
- May see common cold signs or symptoms with fever, sore throat, runny nose, and cough.
- Vomiting and diarrhea can occur but are less frequent.

How long does it take from exposure to development of disease?

Three to six days

When is it contagious?

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

How is it spread?

- Respiratory route: contact with large droplets that form when a child talks, coughs, or sneezes.
- Direct contact with respiratory secretions from objects contaminated by children who carry the virus.
- Fecal-oral route: contact with feces of children who are infected.

What should be done? Should children with this illness be excluded?

- Children with HFMD usually don't need treatment and will get better on their own within a week.
- There is no reason to exclude children with HFMD if they feel well enough to attend and do not require more care and attention than the program can provide.

What should be done to prevent the spread of HFMD?

- Follow strict hand washing and personal hygiene procedures.
- Always wash hands, especially after using the bathroom, diapering or assisting children in the bathroom, and before eating or handling food.
- Wash and disinfect all articles contaminated with stool or mucus.

Who should be notified if an outbreak of HFMD occurs in the child care setting?

- Notify parents and staff members.
- Make sure all children and adults use good hand washing technique.

Head Lice (Pediculosis)

What are head lice?

- Lice are parasites that live on the surface of the human body. An infestation of lice is called “pediculosis”.
- Head lice are wingless, crawling insects which live on the human scalp. They cannot reproduce without the warmth of the human head, nor can they survive without the blood provided by the scalp.
- Head lice are not a sign of poor hygiene, and ***they do not carry disease***.
- Head lice should not be confused with body lice or crab lice.
- Head lice are found only on humans – not on dogs, cats, or other pets.

What are the signs or symptoms?

- Excessive scratching of the head
- A tickling feeling or sensation of something in the hair
- Irritability and sleeplessness
- Sores on the head caused by scratching

How long does it take from exposure to infestation?

One to two weeks.

When are they contagious?

As long as there are live lice and eggs.

How to look for head lice:

- Lice eggs, called ***nits***, are found by close examination of the hair. Nits look like white or dark ovals, and are most noticeable on the back of the neck and around the ears at the base of the hair shaft.
- Nits attached firmly within ¼ inch of the base of the hair shaft suggests a person could be infected.
- Actual lice may be seen crawling on the scalp. Lice are about the size of a sesame seed. They can crawl, but they cannot jump or fly.
- In severe cases of infestation, head lice may also infest eyebrows and eyelashes.

How are lice spread?

Head lice are spread through direct and indirect contact with infested objects or people:

- Head to head contact (very common in children as they play closely);
- Sharing combs, brushes, and hair accessories;
- Sharing hats and head coverings – such as in the “dramatic play” area;
- Storing children’s coats and jackets in a small area where they touch;
- Sharing bedding or providing a comfortable area with pillows where children might rest their heads.

When should children be excluded from care and when can children be re-admitted?

- When head lice are discovered on children it is not necessary to send them home immediately or exclude them from child care or school.
- Contact the parents of the child to inform them their child has head lice and let them know they will have to treat their child and the child's environment that evening.
- At the end of the day provide the parents with educational materials on proper treatment and nit removal.

Treat the person

- People with head lice and nits are treated with medication and manual removal.
- Read and follow the instructions on ALL products and treatments (over the counter OR prescription).
- It is important to remove as many lice and nits as possible. Careful combing of hair in small sections at a time with a fine tooth comb (one will come with the treatment) helps.

Treat the environment

- Machine wash on the hot cycle (130 degrees or hotter) all bed linens, clothing, and towels that have been in contact with the infested person within the last three days. Also wash the soft toys and stuffed animals that the child plays with and cuddles.
- Use a hot dryer setting for at least 20 minutes to dry clothes, linens, towels, soft toys, and stuffed animals after washing.
- Non-washable items can be vacuumed or dry-cleaned.
- If there are items which cannot be washed, vacuumed or dry-cleaned, these items can be "bagged" and sealed in plastic garbage bags for a period of two weeks. "Bagging" objects that can't be washed, dry-cleaned or vacuumed should be done with care and under parental supervision. Lice and nits cannot survive off the human body for this length of time without a blood meal.
- Vacuum carpet, upholstered furniture, mattresses, box springs, and car seats.
- All of the person's brushes, combs, and hair accessories (headbands, barrettes, and ponytail holders) must be treated as well.

The following methods are suggested:

Soak items in a mild bleach solution, rubbing alcohol, or Lysol for one hour, or
Scrub items with soap and hot (130 degree) water. Rinse well.

What can be done to prevent the spread of head lice?

- Make head checks part of the daily health check. The earlier lice are found, the easier they are to treat and keep from spreading further.
- Head lice are treated with medication and manual removal. Thorough combing with a nit comb is important.
- Provide space for children's coats, sweaters, hats, and other personal belongings to be stored separately.
- Teach children the importance of not share clothing, hats, hairbrushes, or combs with other children.

Treatment precautions

- ***Only use licensed and approved products for treatment of head lice.*** Home remedies such as mayonnaise, Vaseline, and tea tree oil are not consistently proven to be effective for the treatment of head lice. Tea tree oils can be irritating to the skin and are toxic to the liver in high doses.
- The treatment times of over-the-counter lice shampoos and rinses must not be extended beyond the package insert recommendations.
- The over-the-counter and prescription shampoos and rinses should not be applied too frequently.
- ***Gasoline, kerosene, or any other petroleum-based products*** which could be flammable **must not be used** for head lice treatment or nit removal.
- ***Products containing insecticides*** that are not labeled for use on humans **must not be used** for head lice treatment or nit removal.

Headaches

What is a headache?

Headaches are thought to be caused by changes in chemicals, nerves, or blood vessels in the area. These changes send pain messages to the brain and bring on an aching in the head.

Headache triggers

In general, children get the same types of headaches as adults. Headaches can also be hereditary, so if a parent gets them, their children might too.

Some of the potential headache triggers include:

- Too little sleep or sudden changes in sleep patterns
- Extreme hunger or thirst
- Certain medications
- Being under a lot of stress
- Having a minor head injury
- Using the computer or watching TV for a long time
- Eye strain, including sun glare
- Smelling strong odors
- Taking a long trip in a car or bus
- Listening to really loud music
- Clenching or grinding teeth
- Tooth infections or abscesses
- Noisy, hot, stuffy environments
- Consuming certain foods or food additives (chocolate, caffeine, cheese, nuts, fried foods, aspartame, MSG)
- Changes in the weather
- Hormonal changes during a girl's menstrual cycle
- Physical exertion

In some cases, headaches are caused by certain infections, such as:

- Ear infections
- Viral infections, like the flu or common cold
- Strep throat
- Sinus infections
- Lyme disease

Two common types of headaches are tension headaches and migraines.

Fairly common in kids, tension-type headaches can cause:

- A pressing tightness in the muscles of the head, radiating down the neck.
- Constant dull ache on both sides of the forehead.
- Pain that doesn't get worse with physical activity.
- A headache that's not accompanied by nausea or vomiting.

Tension headaches are characterized by a contraction of the muscles at the back of the head. Young children may withdraw from regular play and want to sleep more. Tension-type headaches can last from 30 minutes to several hours.

Migraines can cause:

- Throbbing, stabbing, or pounding pain on one or both sides of the front part of the head.
- Pain that worsens with exertion.
- Nausea.
- Vomiting.
- Abdominal pain.
- Dizziness.
- Extreme sensitivity to light, noise, and smells.
- Seeing spots or halos.

Migraine pain is caused by chemicals produced in the brain that alter blood vessels in the brain. The head pain typically lasts for several hours or even overnight. Some people with migraines get **auras**, a warning that a migraine is on the way. Common auras include blurred vision, seeing spots, flashing lights or smelling a certain odor.

What should be done?

Inform the child's parents of any headache symptoms. Keep written notes of other symptoms that accompany the headaches, as well as what the child was doing at the onset and anything he or she ate or drank.

Suggest that the parents call the child's health care provider if the child's headaches:

- Occur once a month or more.
- Don't go away easily.
- Are particularly painful.

Notify parents to pick up child and contact the child's health care provider if the child has any of these symptoms in addition to the headache:

- Decreased level of alertness
- Vomiting
- Headache when the child wakes up, or one that is so painful it wakes the child up
- Headache following a head injury or loss of consciousness
- Headache with seizure
- Visual changes
- Tingling sensations
- Weakness
- Clumsiness or difficulty walking or standing
- Difficulty speaking
- Neck pain or stiffness
- Unable to participate in everyday activities
- Fever or other signs of infection
- Change in personality
- Very thirsty – drinking a lot and/or urinating a lot

Should a child with a headache be sent home?

There is no reason to exclude the child if he or she feels well enough to attend and does not require more care and attention than the program can provide. If the headache becomes so severe that the child does not feel well enough to participate in activities, it would be best to contact the parents.

How headaches are diagnosed

- A physical examination is done, as well as taking a thorough medical history.
- More involved and invasive procedures such as CT scan, MRI scan, lumbar puncture, would be performed only if a serious condition was suspected.

Treatment for headaches

Treatment for a child's headaches will depend on what the doctor determines is the likely cause. Most everyday headaches can be cared for at home with little medical intervention.

To help ease a child's pain, have him or her:

- Lie down in a cool, dark, quiet room.
- Put a cool, moist cloth across the forehead or eyes.
- Relax.
- Breathe easily and deeply.

Make sure the child has had something to eat and drink.

Children with migraines may just want to sleep and may feel better when they wake up. A big part of treating migraines is avoiding the triggers that may have caused them. The child's health care provider may have asked the parent to keep a diary of all food and drink taken in that day, as well as what activities the child was participating in.

The parents of a child with headaches may want you to give the child an over-the-counter pain reliever such as acetaminophen or ibuprofen. Make sure they have filled out and signed the Medication Administration form.

Hepatitis A

What is it?

Hepatitis A is an infection of the liver caused by the Hepatitis A virus.

What are the signs or symptoms?

Symptoms may include:

- Mild fever
- Loss of appetite
- Fatigue
- Nausea and vomiting
- Stomach pain
- Dark urine
- Discoloration of eyes and skin (jaundice)

Young children often have no symptoms or very mild symptoms. Adults and older children are more likely to have typical symptoms of the disease.

How long does it take from exposure to development of infection?

It can take from two to six weeks.

When is it contagious?

It is contagious from two weeks before symptoms appear to one week or more after onset of yellow discoloration. Some people spread the disease without being noticeably sick. Most children under three years of age have no symptoms when they have Hepatitis A.

Who gets it and how?

- Anyone who has not had a Hepatitis A immunization can get this infection, which spreads quickly in groups of children who are not yet toilet-trained and who cannot wash their own hands well.
- Hepatitis A is spread through the fecal-oral route. This means the disease is spread by putting something in the mouth that has been contaminated with the stool of an infected person. It can also be spread when a person eats food or drinks beverages which have been handled by a person infected with Hepatitis A.
- Poor hygiene practices among staff with diaper-changing responsibilities and also those who prepare food can contribute to the spread of Hepatitis A.

What should be done?

There is no treatment that cures Hepatitis A. However, because the incubation period is so long, in cases of possible outbreaks – the illness can be prevented by giving persons in the program and households a protective shot of immune globulin within two weeks of their exposure to the virus.

When should people be excluded and when can they return?

If a child or adult in your child care program is diagnosed with Hepatitis A:

- Exclude the person from child care until one week after the onset of symptoms.
- Immediately notify your local health department and they will provide you with further information.

What can be done to prevent the spread of Hepatitis A?

- Strictly enforce hand washing and universal precautions.
- Make sure all parents and child care personnel notify the program if any person in their household is diagnosed with Hepatitis A.
- ***A vaccine is available to prevent Hepatitis A***, and is recommended for child care providers and for all children at age one year. There are two doses and they should be given at least six months apart.
- When outbreaks occur in child care settings, gamma globulin may be administered to unimmunized children, providers, and families of child care attendees to limit the transmission of Hepatitis A.

Who should be notified?

Notify the local health department. They will provide you with further information.

Hepatitis B

What is it?

Hepatitis B is a viral infection of the liver caused by the Hepatitis B virus. The virus is found primarily in the blood of an infected person and occasionally in other body fluids. It is more common in adults than in children.

What are the signs or symptoms?

Symptoms include:

- Abdominal discomfort
- Loss of appetite
- Nausea
- Fever
- Tiredness
- Joint pain
- Dark urine
- Yellow skin or eyes (jaundice)

Only about 10% of children who become infected with Hepatitis B virus show any symptoms.

How long does it take from exposure to development of the disease?

Usually 45 to 180 days, average 60-90 days.

When is it contagious?

- A person can spread the virus as long as it remains in their blood.
- Hepatitis B is usually contagious from about one month before until one month after the start of jaundice.
- Some people carry and transmit the virus for life.

How is it spread?

Hepatitis B is most often spread from person to person through contact with infected blood, semen, or vaginal secretions. Spreading can occur when infected blood or saliva enters through a cut or scraped area on the skin, or mucous membranes (like the lining of the mouth). Infected mothers can transmit it to a newborn during birth.

When should people with this illness be excluded?

- A staff person with this illness should stay home until she or he feels well, and fever and jaundice are gone.
- A child or staff person with chronic hepatitis B infection who has open sores that cannot be covered should not attend child care until the sores are healed. Hepatitis B is usually contagious from about one month before until one month after the start of jaundice.
- You do not have to exclude a child who is a carrier of the Hepatitis B virus as long as she or he does not have uncontrolled biting or oozing skin lesions that cannot be covered.

What can be done to prevent the spread of Hepatitis B?

- ***Hepatitis B is vaccine-preventable.*** All infants should be vaccinated with three doses of Hepatitis B vaccine during the first 18 months of life. Children not previously vaccinated should receive three doses of vaccine by the age of 11 or 12 years. Child care providers should discuss with their doctor whether it is appropriate for them to receive hepatitis B vaccine.

To reduce the spread of hepatitis B:

- Assure that all children in your program are immunized. Verify if staff members have been immunized.
- Follow universal precautions and make sure all children and adults use proper hand washing practices.
- Protect staff and children by following special procedures for cleaning and handling of all body fluids.
- Wear disposable gloves to create a barrier when caring for open sores, wounds, cleaning up vomit that may have blood in it, and when changing a soiled diaper with bloody stools. Wash hands well after properly disposing of your gloves.
- Clean up all blood spills and diaper changing surfaces with soap and water, then disinfect with an EPA registered disinfectant, such as a bleach solution.
- Place disposable items contaminated blood or body fluids in sealed plastic bags in covered containers.
- Store clothing or other personal items stained with blood or discharges separately in a sealed plastic bag to be sent home with the child for appropriate cleaning. Ask parents to wash and then bleach these items.
- Do not allow sharing of personal items which may become contaminated with blood or bodily fluids such as toothbrushes, food, or any object that may be mouthed; and discourage aggressive behavior (biting, scratching) at the facility.

Who should be notified?

Notify the local health department. They will provide you with further information.

Hepatitis C

What is it?

Hepatitis C is a viral infection of the liver caused by the Hepatitis C virus (HCV).

What are the signs or symptoms?

Children usually don't show any signs or symptoms. Adults often suffer from:

- Tiredness
- Loss of appetite
- Nausea
- Abdominal pain
- Fever
- Yellow skin or eyes (jaundice)
- Dark brown urine or pale-colored stools

Who gets it and how?

- The viruses that cause Hepatitis C are spread through blood (exposure to blood and blood products from HCV infected persons) or other body fluids.
- It is also spread by infected mothers to newborn infants through blood exposure at birth.

When should people with this illness be excluded?

- You do not have to exclude a child who is a carrier of the Hepatitis C virus as long as he or she does not have uncontrolled biting or oozing skin lesions that cannot be covered.
- A staff person with this illness should stay home until he or she feels well, and fever and jaundice are gone.

What can be done to prevent the spread of Hepatitis C?

- Follow universal precautions and make sure all children and adults use proper hand washing practices.
- Protect staff and children by following special procedures for cleaning and handling of all body fluids.
- Wear disposable gloves to create a barrier when caring for open sores, wounds, cleaning up vomit that may have blood in it, and when changing a soiled diaper with bloody stools. Wash hands well after properly disposing of your gloves.
- Clean up all blood spills and diaper changing surfaces with soap and water, then disinfect with an EPA registered disinfectant, such as a bleach solution.
- Place disposable items contaminated blood or body fluids in sealed plastic bags in covered containers.

- Store clothing or other personal items stained with blood or discharges separately in a sealed plastic bag to be sent home with the child for appropriate cleaning. Ask parents to wash and then bleach these items.
- Do not allow sharing of personal items which may become contaminated with blood or bodily fluids such as toothbrushes, food, or any object that may be mouthed; and discourage aggressive behavior (biting, scratching) at the facility.

Who should be notified?

Notify the local health department. They will provide you with further information.

Herpes Simplex

What is it?

Herpes Simplex is a virus that can cause a variety of infections in different age groups. In early childhood, herpes simplex most commonly causes blister-like sores in the mouth and around the lips, and on skin that is in contact with the mouth, such as a finger or thumb that is sucked.

What are the signs or symptoms?

- Fever
- Irritability
- Runny nose
- Tender swollen lymph nodes
- Painful, small fluid-filled blisters in the mouth, on the gums and lips
- Blisters may weep clear fluid and bleed and are slow to crust over
- Often there are no signs or symptoms

How long does it take from exposure to development of infection?

It can take from two days to two weeks.

When is it contagious?

During the first infection:

- People shed the virus for at least a week.
- Some continue to shed the virus for several weeks after symptoms appear.

After the first infection:

- The virus may be reactivated from time to time producing cold sores.
- People with cold sores shed the largest amount of virus for 3 to 4 days after symptoms appear.
- Virus shedding occurs at lowest levels in infected people who have no symptoms.

How is it spread?

- Direct contact through kissing and contact with open sores.
- Contact with saliva (when children share mouthed toys).

What should be done?

- Notify parents to watch for symptoms.
- Take extra precautions to control transmission of infected secretions.

Should people with this illness be excluded?

- Only exclude a child with open blisters or mouth sores if the child is a biter, drools uncontrollably, or mouths toys that other children may put in their mouths.
- Exclude staff with open, oozing sores that cannot be covered.
- ***Do not exclude*** children or staff with skin blisters that can be covered.
- Children and staff that are excluded may return when blisters are crusted over.

What can be done to prevent the spread of Herpes Simplex?

- Make sure all children and adults use good hand washing practices.
- Wash and sanitize mouthed toys, bottle nipples, and utensils that have come in contact with saliva or have been touched by children who are drooling.
- Do not allow children to share toys that can be put in their mouths, as the virus may be present even when sores and symptoms are not noticeable.
- Do not kiss the child or allow the child to kiss others where direct contact with the sore may occur.
- Use gloves if applying medicated ointment to the sores.

Who should be notified?

Notify families whose children may have been exposed to watch for symptoms.

Human Papillomavirus (HPV)

What is it?

HPV is a common family of viruses that causes infection of the skin or mucous membranes and is spread through sexual contact. There are over 100 different types of HPV viruses and different types affect different areas of the body.

What are the signs or symptoms?

- Warts or bumps in the genital area. They can be flat or raised, small or large, smooth or bumpy like cauliflower.
- Warts in the throat or mouth.
- Abnormal cells on the cervix, vulva, penis, mouth and throat, sometimes leading to cancer.

HPV is the cause of almost all cervical cancers in women and has been linked to the rise of oral health cancers in young people.

How is it spread?

The virus is spread by direct sexual contact, even when there are no signs of warts.

How long does it take from exposure until the disease develops?

It can take anywhere from a few months to over a year to develop signs of HPV after having contact.

When is it contagious?

HPV can be spread when someone is carrying the virus, whether warts are present or not. It also can be spread even after warts have been treated and are no longer seen.

What should be done?

- Inform parents about the HPV vaccine and recommend it for their boys and girls 11 – 12 years old.
- Inform and educate staff members about HPV and urge staff members to get the vaccine if they are under the age limit (men through age 21, women through age 26).
- A health care provider can diagnose and treat HPV.

How is it treated?

There is no treatment for the virus itself, but the warts may be treated with prescribed creams or ointments that are applied in the health care provider's office or at home. Other treatments include removal of the warts with a laser or surgery.

What can be done to prevent the spread of HPV?

- ***The HPV vaccine is recommended for all boys and girls ages 11 or 12.***
- HPV vaccines are given in three shots over six months. It is important to get all three doses.
- Catch-up vaccines can be given for males through age 21 and females through age 26.
- For more information about who should receive the vaccine, see www.immunize.org.

- It is always important to avoid direct unprotected contact with warts. People can spread HPV even when they don't have warts, so it is recommended that sexually active people use latex condoms correctly every time they have sex.
- Women between 21 and 65 years of age should be routinely screened for cervical cancer.

Measles

What is it?

Measles is a highly contagious and acute viral disease caused by the measles virus.

What are the signs or symptoms?

- Fever, cough, runny nose, and red, watery eyes.
- Small red spots in the mouth.
- Appearance of a rash at the hairline spreading downward over the body.
- May have diarrhea or ear infection.
- Complications may be serious and result in pneumonia, brain inflammation, convulsions, deafness, permanent disability or death.
- Measles can cause miscarriage or premature delivery in pregnant women who have never had the disease and become infected.

How long does it take from exposure to development of the disease?

Incubation period: 8 to 12 days from exposure to onset of signs and symptoms.

When is it contagious?

It is contagious from one to two days before the first symptoms appear (four days before the rash) until four days after the appearance of the rash.

How is it spread?

- **Respiratory route:** contact with large droplets that form when a child talks, coughs, or sneezes. These droplets can land on or be rubbed into the eyes, nose, or mouth.
- **Airborne route:** breathing small particles containing virus floating in the air. These particles travel along air currents and can infect children in another room.

What should be done?

- Isolate the child.
- Notify the child's parent to pick up the child, and ask them to contact the child's health care provider.

When can the child be re-admitted?

A person with measles should stay home until four days after the rash appears and until feeling well enough to participate in regular daily activities again.

What can be done to prevent the spread of measles?

- **Measles is vaccine preventable.** Measles vaccine is usually administered as part of the MMR vaccine (measles, mumps, and rubella). Immunization of all children at 12 – 15 months, with a booster at ages four to six years, is required by state immunization laws for school and child care.
- Staff who have never had measles or been immunized for it should consult their health care provider.
- Adults born after 1957 may need a measles booster.

- Keep the ill child away from the child care program and away from pregnant women, infants and people with immune problems.
- Make sure all children and staff use good hand washing practices.
- Keep the environment clean.
- Clean and disinfect toys and hard surfaces frequently.
- Review immunization records to ensure that children are up to date with recommended immunizations.

Who should be notified?

Notify the local health department. They will provide you with further information.

Meningitis

What is it?

Meningitis means swelling of the spinal cord and the covering of the brain. Meningitis is usually caused by a virus or bacteria, but can also be caused by a fungus or parasite.

What are the signs or symptoms?

Symptoms can include:

- Fever
- Rash
- Headache
- Stiff neck
- Nausea and vomiting
- Fatigue

Infants may be irritable, very drowsy, very fussy, or refuse to eat.

How long does it take from exposure to development of the disease?

- Viral meningitis can start about three to seven days after being exposed.
- Bacterial meningitis can vary, but usually from one to ten days.

When is it contagious?

- Viruses can be spread to others from about three days after someone is infected until about 10 days after they become sick.
- Bacteria can be spread to others from about 7 days before symptoms start until the ill person has been on antibiotics for at least 24 hours.

How is it spread? Different forms of meningitis are spread in different ways.

- Viral meningitis is more common, and is spread through direct or indirect contact with feces of an ill person, usually by unclean hands.
- Bacterial meningitis is spread through direct or indirect contact with fluids from the nose or mouth of an ill person, usually by having close contact that includes coughing, kissing, or sharing items such as drinking or eating utensils.

What should be done? When a child develops these symptoms, remove him or her from contact with others and call the parents so take the child home. If the symptoms persist, the child should be taken to see a health care provider.

How is it treated?

- Viral meningitis is treated with rest and fluids; antibiotics will not help someone recover from viral meningitis.
- Bacterial meningitis must be treated with appropriate antibiotics, prescribed by a health care provider.

When can the child be re-admitted?

For viral meningitis, when the symptoms are gone, when the treatment is completed, and when the child is able to participate in daily activities.

What can be done to prevent the spread of meningitis?

- Focus on thorough hand hygiene at appropriate times for children and employees.
- Teach children and employees to “Cover Your Cough” using a tissue (followed immediately by hand hygiene) or by covering their coughs or sneezes with their sleeves.
- Clean surfaces and items such as toys every day, and when saliva or nose and throat fluids are on them. In settings such as child care centers, wash objects with soap and warm water, removing visible soil, dirt and contamination before using a bleach solution:
 - For hard surfaces such as diaper-changing areas and bathrooms, use the bleach solution recommended for **disinfecting** based on the *New Bleach Solution Guidelines* in the Appendix.
 - For other objects such as toys and eating utensils, use the bleach solution recommended for **sanitizing** based on the *New Bleach Solution Guidelines* in the Appendix.
- Assure that all children (and staff) are appropriately immunized, especially with **the Hib vaccine**.

Who should be notified? Most types of meningitis are not reportable to the health department. Two types of bacterial meningitis are reported to the health department by hospitals and laboratories. If you have a question about a child in care or an employee who was told they have meningitis, please feel free to call the OSDH Acute Disease Service Epi-on-call at 405-271-4060.

Comments:

There are only two types of bacterial meningitis (*Neisseria meningitidis* and *Haemophilus influenza* type b) for which other exposed child care attendees and employees may be recommended to receive antibiotics. The health department will notify you if this happens. The routine **childhood vaccines** protect children from most common causes of meningitis such as *Haemophilus influenzae* type b (Hib) and *Streptococcus pneumoniae*. Meningococcal vaccines are also recommended for children and some adults. For more information on these vaccines, call your health care provider or the local health department.

Molluscum Contagiosum

What is it?

Molluscum contagiosum is a virus that causes small bumps on the surface of the skin.

What are the signs or symptoms?

Molluscum appear as separate, round bumps or lesions that are:

- Usually yellow, pink or flesh-colored
- Smooth, firm and dome-shaped
- Flat or slightly indented at the top
- Sometimes itchy, but not painful

They can occur in clusters and are frequently seen on the face, neck, trunk, arms, and hands.

How is it spread?

- Through direct contact with the affected area on another person.
- It is also spread by using items such as towels, which were used by someone else with Molluscum contagiosum.
- A person can also spread infection to themselves by touching the bumps, then scratching other parts of the body.

How long does it take from exposure until the disease develops?

It can take between one week and six months before symptoms appear.

When is it contagious?

Probably as long as the bumps are present.

How is it treated?

These usually heal without treatment, but in some situations may be removed by medical freezing, drainage, lasers or medications.

When can the child be re-admitted?

Excluding the child is not recommended.

What can be done to prevent the spread of molluscum contagiosum?

- Avoid direct contact with the skin bumps.
- Do not share towels, washcloths or clothing.
- Explain, model, and direct frequent hand hygiene.
- Covering the lesions is usually not necessary unless a child is picking or scratching them.
- Applying ice packs to itchy areas can help reduce the urge to scratch.

Mononucleosis

What is it?

Mononucleosis is a mildly contagious viral infection caused by the Epstein-Barr virus (EBV). It is commonly known as *mono*.

What are the signs or symptoms?

Symptoms can include:

- Fever
- Sore throat, sometimes white patches on throat
- Fatigue
- Loss of appetite
- Swollen lymph nodes
- Enlarged liver and spleen
- Occasional skin rash

How long does it take from exposure to development of the disease?

It's estimated to be 30 to 50 days.

When is it contagious?

Experts think people with mono are most contagious from the time they first get infected and then for the next 18 months. The EBV stays in the body for life. The virus can show up in a person's saliva from time to time, and there's a chance that person may be contagious during these times. Some people have the virus in their bodies and never have any symptoms, but it is still possible to pass it to others.

How is it spread?

- Person-to-person contact
- Kissing on the mouth
- Sharing objects contaminated with saliva (toys, toothbrushes, cups, bottles)
- May be spread by blood transfusion

Should children with this illness be excluded from group settings?

No, unless

- The child is unable to participate and staff members determine they cannot care for the child without compromising their ability to care for the health and safety of the other children in the group.
- The child meets other exclusion criteria, such as fever with behavior change.

General exclusion of those with mononucleosis is not practical.

When can children be re-admitted to group settings?

- When exclusion criteria are resolved, the child is able to participate, and staff members determine they can care for the child without compromising their ability to care for the other children in the group.
- School-age children should avoid contact sports if they have an enlarged spleen, until their health care provider clears them.

What can be done to prevent the spread of mononucleosis?

- Practice proper hand washing techniques.
- Teach children to use tissues, or cover mouth and nose when coughing or sneezing.
- Ensure that all children have their own toothbrushes, cups and eating utensils.
- Disinfect toys and surfaces in infant or toddler rooms daily and after use; especially chew toys.
- Avoid kissing children on the mouth.

Mumps

What is it?

Mumps is an infection caused by the mumps virus that can result in swelling with tenderness of the salivary glands (the cheek and jaw area).

What are the signs or symptoms?

Symptoms can include:

- Swollen glands in front of and below the ear or under the jaw
- Fever
- Headache
- General aches and muscle pains
- Earache
- Adolescent boys may have painful swelling of the testicles
- Adolescent girls may have painful swelling of the ovaries

Complications include meningitis, deafness (usually permanent), glomerulonephritis (kidney), and inflammation of joints. Mumps infection during the first three months of pregnancy may be linked to miscarriage.

How long does it take from exposure to development of the disease?

16 to 18 days

When is it contagious?

From six days before symptoms to nine days after the swelling begins.

How is it spread?

- Respiratory route: contact with droplets that form when a person talks, coughs, or sneezes. These droplets can land on or be rubbed into the eyes, nose or mouth.
- Contact with the respiratory secretions from objects contaminated by people who carry the mumps virus.

What should be done?

- Isolate the child.
- Notify parents to pick up the child and consult with their health care provider.
- If symptoms occur in a staff member they must leave the facility and contact their health care provider. They cannot return until five days after the onset of swelling.
- During outbreaks exclude exposed children who have not been immunized until they become immunized, or until the health department determines it is safe for them to return.

When can the child be re-admitted?

- Five days after onset of swelling
- When the child is feeling well enough to participate in regular daily activities.

What can be done to prevent the spread of mumps?

- Prevention of mumps is possible through an ***injection of vaccine*** between 12 and 15 months with a booster at four to six years.
- Ensure up-to-date immunizations of children, staff members, volunteers, and family members according to current recommendations.
- Make sure all children and adults use good hand washing practices.
- Wash and sanitize mouthed toys, bottle nipples, and utensils that have come in contact with saliva or have been touched by children who are drooling.

Who should be notified?

Notify the local health department. They will provide you with further information.

Norovirus

What is it?

Noroviruses are viruses that cause intestinal illnesses.

What are the signs or symptoms?

- Diarrhea
- Vomiting
- Stomach cramps
- Sometimes people with norovirus have a headache, muscle aches, or feel very tired.

People with norovirus usually recover in less than three days.

How long does it take from exposure until the disease develops?

Symptoms usually begin about 24 – 48 hours after exposure, but can happen as soon as 12 hours after exposure.

When is it contagious?

- It is most likely to be spread while a person has symptoms, especially diarrhea and vomiting.
- After symptoms are gone, people can still spread the virus for at least three more days.
- Norovirus can also stay on unclean objects and surfaces and still infect people after days or weeks.

How is it spread?

- Norovirus is in the stool (feces) of people who are ill. Norovirus is very easily spread from person to person, and outbreaks are fairly common in group settings.
- It is spread by unclean hands or surfaces.
- Poor hand washing after using the bathroom spreads norovirus.
- Norovirus can stay on unclean objects and surfaces and infect people after days or weeks.

What should be done?

- When a child has vomiting (2 or more times in a 24 hour period) or diarrhea (3 or more loose stools in a 24 hour period), they should be separated from others until a parent or designated adult can pick them up.
- Employees with these symptoms should go home.
- If a child or employee has been in the child care center or school while vomiting or having diarrhea, clean and disinfect any surfaces or objects that may have been contaminated.
- **Cleaning up vomit or diarrhea may release the germs into the air**, and they can be inhaled.
- **Wear disposable gloves and face masks** if cleaning large amounts of vomit or diarrhea.
- Clean up vomit and diarrhea promptly and carefully so that the germs are not released into the air. A good way to do this is to **cover the area with paper towels to absorb the body fluids**. Next carefully finish cleaning the area before using disinfectant.

- Immediately remove clothing or other personal items which have vomit or diarrhea on them and seal in a plastic bag to be sent home with the child for appropriate cleaning.
- Ask parents to wash with an approved detergent in hot water $\geq 160^{\circ}$ F for ≥ 25 minutes. Dry in a hot dryer if fabric allows.
- For sheets and other non-disposable items that belong to the facility, handle as little as possible, without shaking or spreading the germs. Wash with an approved detergent in hot water $\geq 160^{\circ}$ F for ≥ 25 minutes. Dry in a hot dryer if fabric allows.
- If laundry is not done at your facility, immediately place dirty clothes or linens in a plastic bag, then seal or tie the bag.

How is it treated?

People usually recover on their own, but need to drink plenty of fluids, and treat the symptoms with over-the-counter medicines. It is NOT recommended to take an antidiarrheal medicine, which will cause the body to retain the virus instead of flushing it out. Antibiotics will not help with norovirus illness because antibiotics do not work on viruses.

When can the child be re-admitted? Any child or employee with symptoms of norovirus infection should be sent home and must not return until they are no longer symptomatic for 72 hours without taking antidiarrheal medicine.

What can be done to prevent the spread of norovirus?

- Cleaning hands often is important in stopping the spread of norovirus. Hands should be washed vigorously with soap and water for at least 20 seconds:
 - Before eating or feeding children.
 - Before food preparation.
 - Before serving food.
 - After changing diapers, assisting with toileting or using the toilet.
 - After cleaning up vomit or diarrhea.
 - After handling dirty clothes or linen.
- Adults should supervise children washing their hands after using the toilet and before eating.
- Each sink should be supplied with an adequate amount of soap and paper towels.
- Always clean a surface or object well before disinfecting. Leave the disinfecting solution on the cleaned surfaces or objects for 10-20 minutes, and then rinse with water. Use one of these options for disinfection:
 - A commercial disinfectant that says on the label that it kills noroviruses, or
 - A diluted bleach solution, mixed daily, using regular unscented household bleach.See *New Bleach Solution Guidelines* in the Appendix.
- Areas to focus cleaning and disinfection (besides play areas) are frequently touched places such as doorknobs, faucets, sinks, toilets, bathroom surfaces, phones, counters (especially where food is prepared), chairs, tables and light switches.

Who should be notified? If more than one child or staff member becomes ill with symptoms of norovirus in a short period of time, contact the Acute Disease Service at 405-271-4060, and ask to speak with the Epi-on call. They will assist you in making sure you are doing everything you can to stop the spread of norovirus in your facility.

Pinworms

What are they?

Pinworms are small, white, threadlike worms that live in the large intestine. The female worms (resembling short, white threads less than half an inch long) come out through the anus at night and lay their microscopic eggs around the opening.

What are the signs or symptoms?

- Itchy bottom.
- The child may be irritable and experience restlessness while sleeping.
- Anal irritation due to scratching.
- Sometimes thread-like worms are visible in child's bowel movement, but more often they are seen on the skin at the anus.

How long does it take from exposure to development of the infestation?

It can take one to two months or longer from the time of ingesting the pinworm egg until an adult worm migrates to the anal area.

When are they contagious?

Pinworms are contagious as long as the female worms are discharging eggs to the skin around the anus.

How are they spread?

- Fecal-oral route, which means the germs of one person's bowel movement wind up in another person's mouth, usually by way of unwashed hands.
- By sharing toys, bedding, clothing, toilet seats, or baths. The eggs are light and float in the air. Pinworm eggs remain infective for two to three weeks in indoor environments.

How are they treated?

- Several oral prescription medications are available for treatment of pinworms.
- The health care provider will often treat the whole family if one person in the house is infected, and will repeat the treatment two weeks later.

When should people with pinworms be excluded?

Children and adults should be excluded ONLY until treatment has begun (initial dose).

What can be done to limit the spread of pinworms?

- Practice good hand-hygiene technique at all times.
- Keep the child's fingernails short.
- Treatment with oral medication once or repeated in two weeks may be necessary
- Each child's clothing should be stored separately in plastic bags and sent home for laundering.

Who should be notified?

- Notify the parents of the infected child.
- Notify other parents and staff to watch for signs and symptoms.

Pneumonia

What is it?

Pneumonia is an inflammation of the lungs, most often caused by a viral infection, less commonly by a bacterial infection. It is often secondary to an infection that starts in the nose and throat area and then spreads to the lungs.

What are the signs or symptoms?

Some signs and symptoms of pneumonia are:

- Fast difficult breathing
- Cough
- Fever
- Muscle aches
- Loss of appetite
- Lethargy

How long does it take from exposure to development of pneumonia?

Pneumonia is caused by a variety of types of germs, so the time it takes to develop will vary.

When is it contagious?

The contagious period depends on the germ that is causing the pneumonia.

How is it spread?

- Pneumonia does not spread, but the germ that is causing the pneumonia can spread.
- Most of the germs that cause pneumonia spread by direct or close contact with mouth and nose secretions and touching contaminated objects.

How do you control it?

- Make sure all children and staff use good hand washing practices.
- Wipe noses with clean tissues, dispose of them properly and wash your hands.
- Don't share food, cups, bottles, or toothbrushes.
- Teach children to cough into their elbow and away from people.
- Sanitize surfaces that are touched by hands frequently, such as toys, tables, and doorknobs.

Should children with pneumonia be excluded?

No, unless

- The child is unable to participate and staff members determine they cannot care for the child without compromising their ability to care for the health and safety of the other children in the group.
- The child meets other exclusion criteria, such as fever with behavior change, rapid or distressed breathing, or persistent severe cough.

Respiratory Syncytial Virus (RSV)

What is it?

Respiratory Syncytial Virus or RSV is a viral infection of the respiratory system. It is the most common cause of acute respiratory diseases (such as bronchiolitis and pneumonia) in infants and young children.

What are the signs or symptoms?

- Runny nose, congestion, and cough for most children.
- Very young infants can also experience:
 - Irritability
 - Poor feeding
 - Lethargy
 - Cyanosis (turn blue with cough or brief periods of no breathing).
- Respiratory problems include:
 - Bronchiolitis (wheezing from narrowed airways in lungs)
 - Pneumonia
 - Wheezing and asthma attack in children who already have asthma.
- Children with weakened immune systems, prematurity, or heart or lung problems have greater difficulty when ill with this infection.

In the early stages of RSV, symptoms are similar to the common cold: runny nose, sore throat, and low-grade fever. In most cases, the illness will not pass this point and resolve on its own in a few days. If the virus spreads to the lungs, the child develops a cough, chest congestion, and an expiratory (breathing out) wheeze. If infection progresses, a more persistent cough and shortness of breath are possible.

How long does it take from exposure until the disease develops?

Usually from four to six days, but may range from two to eight days.

When is it contagious?

Usually three to eight days.

How is it spread?

- RSV is highly contagious and spreads easily from person to person by direct contact with nose and mouth secretions.
- The virus can live on surfaces, toys, and hands and infected children shed the virus before symptoms appear.
- Droplets from a cough or sneeze may also spread the infection.

What should be done?

- Isolate the child only if other symptoms such as fever are present.
- Stress careful hand washing and appropriate hygiene with staff and children.
- Notify parents to pick up child immediately if he or she is having difficulty breathing and encourage medical supervision.

What can be done to prevent the spread of RSV?

- Practice frequent hand washing, especially when wiping a child's runny nose.
- Teach children to wash their hands after blowing their nose or coughing.
- Practice proper disposal of tissues.
- Clean and disinfect toys and hard surfaces frequently. Mouthed toys should be cleaned and sanitized after each use, or removed until cleaning takes place.
- Do not allow sharing of mouthed toys, bottles, cups or pacifiers.
- When possible, limit the time that children with high-risk conditions spend in child-care centers during the RSV season. Children at high risk for severe RSV disease should talk with their healthcare provider to see if a preventive medication (palivizumab) should be used as a preventive measure during RSV season.
- Children with RSV should stay home when having a fever or cough.

Who should be notified?

Other parents may be notified so they can be alert to symptoms in their own children. Very young children, infants, or those who have a compromised health status may be at risk for developing severe infection and complications.

Ringworm

What is it?

Ringworm is a fungal infection that may affect the body, feet, or scalp.

What are the signs or symptoms?

Skin

- Ringworm appears as a flat, growing, ring-shaped rash.
- The edges of the circle are usually reddish and may be raised, scaly and itchy.
- Another type of ringworm fungus can cause the skin to become lighter in flat patches, especially on the trunk and face.

Scalp

- Infection begins as a small bump and spreads outward, leaving scaly patches of temporary hair loss.
- Patchy areas of dandruff-like scaling with or without hair loss.
- Redness and scaling of scalp with broken hairs or patches of hair loss.

Feet

- The skin between the toes scales and cracks.
- Blisters may be seen.
- On the nails, a chronic infection can cause thickening, discoloration and fragility.

How long does it take from exposure to development of ringworm?

It takes from 10 to 14 days.

When is it contagious?

A person with ringworm of the skin is infectious as long as the fungus remains present in the skin lesion. The fungus is no longer present when the lesion starts to shrink.

How is it spread?

- Ringworm is spread by direct contact with a person or animal infected with the fungus.
- It can also be spread indirectly through contact with articles (such as combs or clothing), or with surfaces which have been contaminated with the fungus.

What should be done?

- Isolate the child.
- Call the child's parents.
- Recommend a visit to the child's health care provider.
- Practice good hygiene to keep ringworm from spreading.

When can the child be re-admitted?

- After prescription treatment and release by a health care provider.
- Once treatment has begun, there is usually no need to exclude the child, although you may need to cover areas infected with light gauze dressing.

Who should be notified? Call the parents of the infected child.

Roseola

What is it?

Roseola is a viral infection causing fever or rash in infants and children that primarily occurs between six and twenty-four months.

What are the signs or symptoms?

- High fever (greater than 103 F) that lasts for three to five days
- The high fever can cause febrile seizures
- Runny nose
- Eyelid swelling
- Irritability and tiredness
- When the fever breaks a red, raised rash appears over the neck, chest and body and typically lasts from one to three days
- Some children will have no symptoms at all

How long does it take from exposure until the disease develops?

It can take nine to ten days.

When is it contagious?

After infection, the virus is present in the saliva on and off for the rest of a person's life.

How is it spread?

Through sneezing, coughing, direct contact, such as eating or drinking after an infected child or handling personal items of the child.

What should be done?

- Isolate from other children until parents arrive.
- A child with fever and rash should be excluded from child care until seen by a health care provider.

When can the child be re-admitted?

After the fever breaks, a child may return to care while the rash is still present, provided the child feels well and is able to participate in all activities.

What can be done to prevent Roseola?

Make sure all children and staff use good hand washing practices; especially after wiping or blowing noses, after contact with any nose, throat or eye secretions, and before touching food.

Rotavirus

What is it?

- A virus that causes diarrhea and vomiting.
- Before the vaccine was released in 2007, it was the single most common cause of diarrhea in children younger than two years.
- The disease occurs more frequently in cooler months.
- Nearly all children have been infected by the time they reach three years of age.
- Children can get infected more than once because the virus has many types.

What are the signs or symptoms?

- Non-bloody diarrhea
- Nausea
- Vomiting
- Stomach pain
- Dehydration in severe cases

How long does it take from exposure until the disease develops?

Symptoms usually begin about 24 – 72 hours after exposure.

When is it contagious?

It is most likely to be spread while a person has symptoms, especially diarrhea and vomiting. After symptoms are gone, people can still spread the virus for at least three more days.

How is it spread?

- Fecal-oral route: the virus is spread in the stool (feces) of people who are ill.
- It is spread by unclean hands, objects such as toys or surfaces, food and water.
- Rotavirus can stay on uncleaned objects and surfaces and still infect people after several days.
- People can spread the virus both before and after they become sick with diarrhea. They can also pass rotavirus to family members and other people with whom they have close contact.

What should be done?

Exclude from group settings if:

- Stool is not contained in the diaper for diapered children.
- Diarrhea is causing accidents for toilet trained children.
- Stool frequency exceeds two or more above normal for that child.
- Stool is all black, or there is blood or mucus in stool.
- The child meets other exclusion criteria, such as fever with behavior change.

Exclude any child or employee who has diarrhea along with illness, fever, or vomiting.

How is it treated?

- There is no treatment or cure. Antibiotic drugs will NOT help because antibiotics fight against bacteria not viruses.
- It is important to prevent dehydration by drinking plenty of fluids. If a child becomes severely dehydrated, he may need to receive intravenous (IV) fluids in a health care setting.

When can the child be re-admitted?

- Once diapered children have their stool contained by the diaper, and when toilet trained children do not have toileting accidents.
- When the child is well enough to participate in group activities.

What can be done to prevent the spread of Rotavirus?

- ***Rotavirus is a vaccine preventable disease.*** Follow the most recent immunization recommendations.
- Practice good hand washing.
- Clean and sanitize objects and surfaces regularly.
- Exclude children from care when symptoms require it.

Roundworm Infection (Toxocariasis)

What is it?

Toxocariasis is an infection transmitted from animals to humans caused by the parasitic roundworms commonly found in the intestine of dogs and cats.

Who is at risk for *toxocariasis* or roundworm infection?

Anyone can become infected with *Toxocara*. However, some people are at higher risk of infection, including:

- Children
- People who accidentally eat dirt
- Dog or cat owners

How serious is infection with *Toxocara*?

- In most cases, *Toxocara* infections are not serious, and many people, especially adults infected by a small number of larvae (immature worms), may not notice any symptoms.
- The most severe cases are rare, but are more likely to occur in young children, who often play in dirt, or eat dirt contaminated by dog or cat feces.

What are the signs or symptoms?

- Many people do not have symptoms and do not ever get sick.
- Some people (usually children) get sick from the infection and may have:
 - Fever along with damage to organs in their body, problems breathing, or stomach pain.
 - Eye disease that causes vision problems, eye pain, or eye redness.

How is the roundworm infection spread?

- Dogs and cats infected with *Toxocara* shed *Toxocara* eggs in their feces.
- People become infected by accidentally swallowing dirt that has been contaminated with dog or cat feces that contain *Toxocara* eggs.
- Although it is rare, people can become infected from eating undercooked meat containing *Toxocara* larvae.
- The disease is not spread by person-to-person contact.

What should be done?

If you think a child may have roundworm infection, notify the parents and encourage them to take the child to their health care provider for an exam.

What can be done to prevent Roundworms?

- Use good hand washing practices – especially after playing outside or with animals.
- Supervise children closely outdoors and teach not to eat dirt.
- Dispose of dog and cat feces promptly and wash your hands after handling pet waste.
- Cover sandboxes and restrict animal access to play areas.
- Take your pets to the veterinarian to prevent infection with *Toxocara*. Your veterinarian can recommend a testing and treatment plan for de-worming.

Rubella (German Measles)

What is it?

Rubella, also called German measles or three-day measles, is a childhood disease caused by the rubella virus.

What are the signs or symptoms?

- Mild fever
- Swollen lymph glands behind the ears
- Red or pink rash appearing first on the face, then spreading down over the body
- Many experience joint aches or pain

How long does it take from exposure to development of the disease?

Two to three weeks.

When is it contagious?

- Seven days before rash appears.
- 14 days after rash appears.
- Children are most contagious three to four days before and until seven days after.

How is it spread?

It is spread by saliva and respiratory discharges from the nose and mouth, through the air, or on hands and surfaces.

What should be done?

- Isolate the child.
- Contact the parents to take the child home.

When can the child be re-admitted?

- Seven days after the onset of the rash.
- When the child is able to participate in daily activities.

What can be done to prevent the spread of Rubella?

- All *children should be fully immunized against rubella* following the recommended schedule.
- Make sure all children and staff use good hand washing practices.
- All female staff in the childbearing years should have a blood test for sensitivity to rubella.
- Keep all pregnant women, infants and unimmunized individuals away from a person ill with rubella.
- Follow universal precautions.
- Carefully observe other children, staff, or family members for symptoms.

Who should be notified?

Notify the local health department, they will provide you with further information.

Salmonella

What is it?

It is an intestinal infection caused by *Salmonella* bacteria and is a common cause of diarrheal illness in the United States.

What are the signs and symptoms?

- Diarrhea
- Fever
- Abdominal pain
- Nausea and vomiting
- Sometimes blood or mucus in stool

How long does it take from exposure to development of disease?

It takes about 12 to 36 hours, though the earliest symptoms may start within six hours.

When is it contagious?

A person is able to infect others once they start having diarrhea.

How is it spread?

- Ingestion of contaminated food, water, meats, eggs, and unpasteurized milk.
- Fecal-oral route: contact with feces of infected children and animals.
- Animals such as birds, turtles and lizards often carry salmonella.

Should the child be excluded from group setting?

The child should be excluded from group care when:

- The diarrhea is not contained in the diaper for diapered children.
- Diarrhea is causing “accidents” for toilet-trained children.
- Stool frequency exceeds two or more stools above normal for that child.
- There is blood or mucus in the stool.
- The stool is all black.
- Dry mouth, no tears, or no urine output in eight hours.
- Child is unable to participate in daily activities.

When can the child be re-admitted?

The child should not return to care until 24 hours after diarrhea has stopped (without anti-diarrhea medication) and the child is able to participate in daily activities.

What can be done to prevent the spread of Salmonella?

- Use good hand hygiene at all times. Make sure children and staff wash their hands after handling animals and cleaning cages or pens.
- No reptiles or amphibians (turtles, snakes, lizards, iguanas, frogs, toads, and newts), in child care facilities or schools.
- Limit the serving of snacks and treats prepared outside the facility and served for special occasions to those from commercial sources.

- Do not serve children raw or undercooked eggs.
- Poultry and meat should be stored in a refrigerator and well-cooked, not pink in the middle.
- Children should not eat or drink raw or unpasteurized fruit juice or dairy products.
- Use proper sanitation methods for food processing, preparation, and service.

Who should be notified?

- Notify all parents and staff there is a case of salmonella.
- Notify the local health department. They will provide you with further information.

Scabies

What is it?

Scabies is a skin infection caused by a tiny bug called a mite. The mite burrows into the skin, causing a rash.

What are the signs or symptoms?

- Rash with severe itching (increased at night).
- Itchy red bumps or blisters found on fingers, toes, wrists, elbows, armpits, waistline, thighs, abdomen, genital area and lower buttocks.
- In infants and young toddlers the rash may look different and can also occur on the face or scalp.

How long does it take after exposure before symptoms appear?

- Four to six weeks for those who have never been infected.
- One to four days for those who have been previously infected.

When is it contagious?

It is contagious until the mites and eggs are destroyed by treatment. The mites can survive only three days off the body and cannot jump or fly.

How is it spread?

Direct skin-to-skin contact and contact with contaminated clothing, towels, and bed linens is the usual way scabies is spread.

What should be done?

- Isolate the child.
- Notify the parents and request they take their child to a health care provider for treatment.
- Check other children for unrecognized cases.
- Notify parents of children who may have had direct contact with the infected person.

When can the child be re-admitted?

The child should not return to group care until diagnosed and treated for 24 hours. Household members should be checked and treated at the same time if necessary.

What can be done to prevent the spread of scabies?

- Proper and frequent hand washing.
- Look for signs of scabies in the morning health check and refer suspected cases.
- Do not share hats and jackets.
- Keep personal clothes and bedding separate.
- Launder bedding and clothes used in the 48 hours prior to treatment. Wash in a machine and dry in a hot dryer.
- Store difficult to wash items (such as stuffed toys and pillows) in tightly closed plastic bags for four days before using again.
- Vacuum carpets, upholstered furniture, and car seats.

Shigella

What is it?

Shigella is a bacterial infection of the large intestine.

What are the signs or symptoms?

- Loose, watery stools with blood or mucus
- Fever
- Headache
- Nausea and vomiting
- Abdominal pain
- Convulsions

How long does it take after exposure before symptoms appear?

Illness generally begins one to four days after exposure.

When is it contagious?

Although symptoms usually disappear without treatment after four to seven days, bacteria may still be passed through the stool for up to four weeks.

How is it spread?

- It is spread through the fecal-oral route: contact with stool of children who are ill.
- It is spread when diarrheal stools get on hands or objects and then onto other children's hands and mouths.
- It can also be spread through stool-contaminated food, drink, or water.

What should be done?

- Exclude child from group setting if stool is not contained in the diaper for diapered children, or diarrhea is causing "accidents" for toilet-trained children.
- When Shigella is identified, the child should not return to group care until completion of five days of antibiotics or two successive stool cultures are negative.

How is it treated?

- Plenty of fluids to prevent dehydration.
- Prescription antibiotics may be used during outbreaks, for severe illnesses or to protect people at high risk of complications.

What can be done to prevent the spread of Shigella?

- Practice proper hand washing techniques.
- Make sure procedures for cleaning and disinfecting toys are being followed, and that toys are cleaned and disinfected between uses by children who are likely to put them in their mouths.
- Eliminate access to shared water play areas during a known outbreak.

Who should be notified?

Notify your local health department if someone in your program has this disease. They will provide you with further information.

Prompt intervention may help prevent the spread of Shigella to others.

Shingles (Herpes Zoster)

What is it?

Shingles is a painful rash illness which appears as crops of small blisters. It is caused by the varicella zoster virus, the same virus that causes chickenpox. After a person has had chickenpox, the virus may reappear later as Shingles.

What are the signs or symptoms?

- Before the rash develops, itching, tingling, and pain may occur.
- The rash begins with raised reddish bumps which become blisters.
- It usually appears on one side of the body.
- The blisters crust over and fall off after 7 to 10 days.
- Some people continue to have pain even after the rash is gone.

How long does it take from exposure to development of the disease?

- The virus can remain inactive in the body for many years after the original chickenpox infection.
- Exposure to shingles can cause chickenpox in a person who has not had chickenpox or the varicella vaccine.

When is it contagious?

The blisters of a person with shingles are contagious until they have dried and crusted.

How is it spread?

- Shingles cannot be passed from one person to another.
- The virus that causes shingles can cause chickenpox in someone who has never had chickenpox through touching the rash.
- A person with shingles can spread the virus when the rash is in the blister-phase.

What can be done to prevent the spread of the virus?

- Use good hand washing practices at all times.
- Avoid touching the rash area and cover the rash if participating or teaching in a group setting.
- There is now a *shingles vaccine* recommended for people 60 years of age and older.

Skin Infections including Staphylococcus (“Staph”), Impetigo and MRSA (Methicillin-resistant *Staphylococcus aureus*)

What are they?

Skin infections are usually caused by bacteria such as *Staphylococcus* (also known as “staph”). They are usually mild. Rarely the bacteria can cause more serious illness. Therefore it is very important for skin infections that are not improving to be examined by a health care provider.

What are the signs or symptoms?

- Skin infections usually start as a “break” in the skin which becomes red and tender.
- The area may be swollen, and there may be pus present.
- A skin infection may also look like a rash.

How are they spread?

Skin infections are spread from person to person by **direct contact** with someone’s skin infection. Touching objects or surfaces that have had drainage from someone’s skin infection can also spread infection. This is known as **indirect contact**.

What should be done?

- Keep skin infections completely covered with a bandage such as Band-Aid®.
- If the bandage becomes soaked or loose, remove it and throw it away in a trash can, wash your hands, then place a clean bandage over the infection.
- If the infection cannot be covered by a bandage, or if the child or worker will not leave the bandage on, then they need to be excluded from the child care setting until the infection has healed or can be kept covered.

How is it treated?

Most skin infections will heal by keeping the area clean and covered with a bandage. Antibiotics are rarely needed. If a skin infection does not improve, or if it spreads, ask the parent to take the child to see his health care provider.

When can the child be re-admitted?

A child with a skin infection can attend child care if the infected area can be completely covered by a bandage, and if the child is cooperative in leaving the bandage in place.

What can be done to prevent skin infections?

When you first notice a break in your skin, wash it with soap and running water, and then put a clean, dry bandage over it. Change the bandage if it becomes wet, dirty or loose. Keeping your skin clean and free from contamination will help to prevent skin infections.

What can be done to prevent spreading skin infections to others?

You can prevent spreading skin infections to others by following these steps:

1. Keep any skin infections covered at all times with clean, dry bandages, especially if pus or drainage is present. Keep wound drainage from getting on others, or on objects or surfaces.

2. Wash your hands often, especially after touching the area of infected skin, and before touching anything else.
3. Advise your family and others to wash their hands more often, especially if they touched the affected area or any items that had contact with it.
4. Wear disposable latex or vinyl gloves if you are caring for a skin infection other than your own. Always remove and dispose of gloves immediately and wash your hands with soap and water.
5. Do not share personal items such as towels, washcloths, razors, clothing, or uniforms that may have had contact with pus or drainage.
6. Wash soiled bed linens and clothes with hot water (at least 160° F), laundry detergent and (when possible) bleach. Using the hottest setting on your clothes dryer (commercial dryers are hottest) instead of air-drying will help kill bacteria.
7. Put all bandages or items with any pus or drainage (including blood and nasal discharge) immediately into the trash.
8. Clean all possible contaminated surfaces with a commercial disinfectant or with the bleach water solution recommended for disinfecting based on the new *Bleach Solution Guidelines* in the Appendices. This solution must be mixed fresh daily to be effective.

Strep Throat and Scarlet Fever

What are they?

A variety of infections, including strep throat, scarlet fever and impetigo are caused by Group A Streptococci bacteria.

What are the signs or symptoms?

Signs of strep throat:

- Very red and painful throat
- Fever
- Tender and swollen lymph nodes in neck
- Headache
- Stomachache
- Decreased appetite

Scarlet fever is a type of streptococcal infection characterized by a skin rash.

- Fine red bumps that feel like sandpaper
- Rash appears on the neck, chest, armpit and groin area and may only last a few hours
- Flushed cheeks
- Paleness around the mouth
- A red tongue that resembles the surface of a strawberry

How long does it take from exposure before symptoms appear?

Two to five days.

When is it contagious?

Strep throat is probably contagious before symptoms appear and continues to be infectious until treated for 24 hours.

How is it spread?

- The Group A Streptococci are transmitted from one person to another through direct contact with the respiratory discharges of infected persons.
- Contact with the respiratory secretions from or objects contaminated by people who carry strep bacteria.
- Close contact helps the spread of the infection.

What should be done?

1. Isolate the child from the other children.
2. Contact the parents to pick up the child and consult with the child's health care provider.

When can the child be readmitted?

If the health care provider diagnoses strep throat, the child may return 24 hours after antibiotics have been started.

What can be done to prevent the spread of Strep?

- Make sure all children and adults use careful hand washing practices.
- Teach children to cough and sneeze into their elbow, wipe noses with clean tissues, throw the tissue into the wastebasket, and wash hands.
- Do not allow food to be shared.
- Do not kiss children on the mouth.
- Open windows indoors and maximize outdoor play.
- Parents who become aware that their child has strep throat or scarlet fever should inform caregivers.

Styes and Eyelid Conditions

What is it?

A sty is a mild infection in the eyelid at the base of the eyelashes or near the edge of the eyelid.

What are the signs or symptoms?

- A red bump on or near the edge of the eyelid that is similar to a pimple
- Eyelid pain
- Eyelid swelling
- Tearing

Styes typically don't cause vision problems.

When is it contagious and how is it spread?

- Styes may drain pus that contains bacteria. This could be contagious to others, but the drainage period is usually brief.
- Styes are contagious, but everyone has the sty causing bacteria in their body. At any age we have the potential to develop a sty without outside contamination.

What should be done?

- Never "pop" a sty.
- Most styes heal on their own within a few days.
- To encourage healing and provide comfort apply warm compresses to eye for 10 minutes three or four times a day.

Other eyelid conditions:

- **Chalazia:** often mistaken for a sty, a chalazion (kah-LAY-zee-on) is an enlarged, blocked oil gland in the eyelid. A chalazion mimics a sty for the first few days, then turns into a painless hard, round bump later on.
 - Most chalazia develop farther from the eyelid edge than styes.
The same treatment used for a sty speeds the healing of a chalazion, though the bump may linger for one to several months.
 - If the chalazion remains after several months, an eye doctor may drain it or inject a steroid to facilitate healing.
- **Milia:** also called "milk spots" or "oil seeds," milia are tiny white cysts, usually appearing on the outer skin layer (epidermis) of the eyelid and around the eyes and nose.
 - They occur when dead skin cells don't slough off normally and are trapped at the base of a sweat gland or hair follicle, forming a raised "pinhead" bump that looks similar to a whitehead.
 - Milia are most common in newborns, but adults also can be affected. In babies, milia tend to clear up on their own over a week or two, but most adults will require medical treatment.
 - The preferred method of removing a bothersome milial cyst is by a simple surgical excision (no stitch is needed) by your dermatologist.

- **Xanthelasma:** A subtype of xanthoma (zan-THOE-mah), this skin condition is characterized by yellowish bumps (plaques) under the skin, occurring on or around the eyelids.
 - Xanthelasma (zan-thah-LAZ-mah) generally appear as disc-like lesions with a flat surface and well-defined borders, ranging in size from several millimeters up to three inches in severe cases.
 - They are usually non-symptomatic, but can be surgically removed by your doctor for cosmetic purposes.
 - They are caused by a build-up of certain fats, namely cholesterol, under the surface of the skin and often are attributed to elevated lipid levels in the blood stream such as high cholesterol.
 - The growth is non-cancerous, but elevated blood lipids could increase your risk of cardiovascular disease and should be investigated further by your doctor.

See the *All About Vision* website for further information. <http://www.allaboutvision.com>

Thrush

What is it?

Thrush is a yeast-like fungus infection.

What are the signs or symptoms?

- White lesions on inner cheeks and tongue, and sometimes on the roof of the mouth, gums and tonsils.
- Slightly raised lesions with a cottage cheese-like appearance.
- Redness or soreness that may be severe enough to cause difficulty eating or swallowing.
- Slight bleeding if the lesions are rubbed or scraped.
- Cracking and redness at the corners of the mouth.

Infants and breast feeding mothers

- In addition the distinctive white mouth lesions, infants may have trouble feeding or be fussy and irritable.
- The infants can pass the infection to their mothers during breast feeding.
- The infection may then pass back and forth between the mother's breasts and the baby's mouth.

When is it contagious?

As long as the white lesions are present.

How is it spread?

- Person to person contact.
- Babies sharing the same bottles, cups, and eating utensils.
- From breastfeeding mothers to their babies and back to the mothers.

What should be done?

- Notify the child's parent about possible thrush.
- Ask parent to seek medical attention for the child.

When can the child be re-admitted?

The infected child does not need to be excluded.

What can be done to prevent the spread of Thrush?

- Closely supervise the use of pacifiers and bottles.
- Use good hand washing practices at all times.
- Use disposable eating utensils for the infected child.
- Wash and sanitize all toys mouthed by children.

Tuberculosis (TB)

What is it?

Tuberculosis (TB) is an infectious disease caused by bacteria, which usually affects the lungs. However, other parts of the body can also be affected.

What are the signs or symptoms?

General symptoms may include:

- Feeling weak or sick
- Weight loss
- Fever
- Night sweats
- Cough
- Chest pain

Most children initially infected with the bacteria do not have signs or symptoms.

- Two to ten weeks after initial infection, they will react to a tuberculin skin test.
- If an infected child does develop signs or symptoms of TB, it most often occurs one to six months after the initial infection and may include:
 - Chronic cough
 - Weight loss
 - Fever
 - Growth delay
 - Night sweats
 - Chills

How long does it take from exposure to development of the disease?

The risk of disease after infection is highest in the first two years, but the bacteria can be carried in the body for many years before active disease develops.

When is it contagious?

- Individuals with infection but without active disease are not contagious – they are referred to as latent TB infection.
- Adults and some adolescents who have active TB spread the bacteria by coughing and contaminating the environment.
- The disease will remain active in someone who has developed symptoms of TB until the person is treated.

How is it spread?

- Airborne route: breathing small particles containing these bacteria in the air, as a result of someone with active TB coughing or sneezing.
- Infection of children is nearly always the result of close contact with an adult who has active TB.
- Generally, infants and children with active TB disease are not contagious because when they cough they do not create enough force to expel large numbers of TB germs into the air.

What should be done and how do you prevent the spread of TB?

- Make sure all children and adults use good hand washing practices.
- Teach children and staff to cough and sneeze into their elbow, wipe noses with clean tissues, throw the tissue into the wastebasket, and wash hands.
- Provide adequate ventilation.
- Tuberculin skin testing of children and staff may be necessary if there has been an exposure to TB.
- Exclude children and adults with active TB infection and ensure they receive prescribed medication from their health care provider.

When can the child with active TB be re-admitted?

- After prescribe medication has been started.
- When the child is approved to return by local health officials and is considered noninfectious to others.
- When the child is able to participate in daily activities.

Who should be notified?

Notify the state or local health department. They will provide you with further information.

Urinary Tract Infection

What is it?

A urinary tract infection is an infection of one or more parts of the urinary system – the kidneys, the tubes that join the kidneys to the bladder (ureters), the bladder, and the tube that leads from the bladder to the outside (the urethra).

What are the signs or symptoms?

- Pain, burning, stinging sensation when urinating.
- Increased urge to urinate or frequent urination (though a very small amount of urine may actually be produced).
- Fever.
- Wetting problems in children that are toilet trained.
- Low back pain or abdominal pain in the area of the bladder (below the navel).
- Foul-smelling urine that may look cloudy or contain blood.

Signs and symptoms in infants and toddlers (children still in diapers) may be very general – they may seem irritable and have a poor appetite. Sometimes the only symptom is a fever that doesn't go away.

When is it contagious?

Urinary tract infections are not contagious.

How is it spread?

- Infection usually occurs from bacteria from feces on the skin that enter the urethra, particularly in girls.
- Urinary infection is more common in children with constipation and who do not fully empty their bladders when voiding.
- Less commonly, it is caused by bacteria from the bloodstream entering the kidneys.
- Urinary tract infection is not passed from one person to another.

What should be done?

- Keep track of the child's trips to the bathroom and symptoms.
- Notify the parents if the symptoms are a concern and recommend they contact the child's health care provider.
- Urinary tract infections are treated with antibiotics.
- There is no reason to exclude a child with a urinary tract infection unless the child meets other exclusion criteria or is unable to participate in daily activities.

What can be done to prevent the spread of urinary tract infections?

- For infants and toddlers – change diapers frequently and clean up correctly.
- Teach children good hygiene, and to wipe from front to back.
- Children should be taught not to “hold it in” when they have to go because urine that remains in the bladder gives bacteria a good place to grow.
- Encourage the child to drink plenty of fluids (water).
- Girls should avoid bubble baths and strong soaps that might cause irritation.

Vomiting

What is it?

Vomiting is the forcible emptying of the stomach contents through the mouth.

What are the signs or symptoms?

- Children with vomiting from an infection often have diarrhea and sometimes fever.
- Prolonged or severe vomiting can result in children becoming dehydrated, which means their bodies lose nutrients and water, leading to further illnesses.

When is it contagious?

If the vomiting is associated with an infection, the contagious period depends on the type of germ causing the infection.

How is it spread?

Direct contact with vomit can result in the spread of certain infections.

What should be done?

- Use good hand washing practices at all times.
- Clean and disinfect surfaces that have been contaminated with body fluids.
- Exclude children if:
 - Vomited more than two times in 24 hours.
 - There is vomiting and fever.
 - Vomit appears green or bloody.
 - There is no urine output in eight hours.
 - There is a history of a recent head injury.
 - The child looks or acts very ill.

When can the child be re-admitted?

- When the vomiting has stopped for at least 24 hours.
- When the child is able to participate in daily activities.

Warts

What are warts? Warts are skin growths caused by a virus called human papilloma virus. There are many different types of human papilloma viruses. Some cause warts on the hands, some on the feet and some in the genital areas.

What are the signs or symptoms?

- Warts may appear as a single bump or a series of bumps on the skin.
- They may have a “cauliflower” appearance.
- Warts are generally painless unless they are irritated.

Who is at risk for warts? People of all ages can get warts.

How long does it take from exposure until warts develop? It can take weeks or months before a wart appears after the skin is infected.

When is it contagious? This is not known. It might be as long as a person has warts.

How are warts spread?

- Warts are spread by direct contact with someone who has warts.
- Some warts, such as warts on the bottoms of the feet (called plantar warts), can be caused by contact with contaminated surfaces such as public shower floors.

How is a person diagnosed? It depends on the type of warts a person has. Refer the parent to their health care provider if needed.

What is the treatment? Warts may not always need to be treated, but if so, the treatments can vary. Warts can be removed by freezing, chemical or surgical means if needed.

Should children or others be excluded from day care, school, work or other activities if they have warts?

Exclusion is not necessary since warts are not likely to cause serious health problems.

What can be done to prevent the spread of warts?

Good and frequent hand washing, along with keeping surfaces and objects cleaned and disinfected are important to prevent the spread of warts.

Whooping Cough (Pertussis)

What is it?

Whooping cough is a serious respiratory infection caused by bacteria that is highly contagious. It gets its name from the whooping sound the child makes when trying to inhale after a coughing spell.

What are the signs or symptoms?

- Begins with cold-like symptoms – runny nose and cough.
- Coughing may progress to severe coughing, which may cause
 - Vomiting
 - Loss of breath, difficulty catching breath
 - Cyanosis (blueness).
- Whooping sound when inhaling after a period of coughing.
- Coughing persists for weeks to months.
- Usually no fever or very minimal.
- Symptoms are more severe in infants younger than one year.
- Infants may develop complications that require hospitalization, such as:
 - Pneumonia
 - Ear infections
 - Swelling of the brain.

How long does it take from exposure to development of the disease?

Five to 21 days.

When is it contagious?

From the beginning of symptoms until two weeks after the cough begins, depending on age, immunization status, previous episodes of infection, and antibiotic treatment.

How is it spread?

Respiratory route: it is spread through the air after an infected person coughs or sneezes, and other people breathe in infected droplets.

What should be done?

- Isolate the child with symptoms from other children until parents arrive.
- Recommend parents take the child to the health care provider and ask them to let you know what they find out.
- Watch for symptoms in other children.
- Exclude infected persons from the program.

When can infected children and staff return to the program?

- After five days of appropriate antibiotic treatment, or after three weeks from the beginning of the cough if antibiotics are not used.
- When the child is well enough to participate in group activities.

What can be done to prevent the spread of Whooping Cough?

- ***Whooping Cough is a vaccine-preventable disease*** – require up-to-date immunizations for all children in your care.
- Use good hand washing practices at all times.
- Teach children and staff to “Cover Your Cough” using a tissue (followed immediately by hand hygiene) or by covering their coughs or sneezes with their sleeves.
- Monitor all children and staff for coughs. Anyone developing a persistent cough should be referred to their health care provider.

Who should be notified?

Notify your local health department if someone in your program has this disease. They will provide you with further information.