



Prevention of Diarrheal Illness in Childcare Settings

What is diarrheal illness?

Diarrhea is an illness that is defined by watery stools, less-formed stools and increased frequency of stools. Diarrhea can be caused by infectious diseases, changes in diet, and the use of some medications. Infectious causes include viruses, bacteria, and parasites. Some examples of infectious causes of diarrhea include:

- Viruses: rotaviruses, enteric adenoviruses, astroviruses, caliciviruses, hepatitis A, enteroviruses
- Bacteria: *Shigella*, *Salmonella*, *Campylobacter*, *Escherichia coli* O157:H7, *Clostridium difficile*
- Parasites: *Giardia*, *Cryptosporidium*

Who is at risk for diarrhea?

People of all ages are susceptible to the various causes of diarrhea, including the infectious causes. Depending on the infectious agent, complications are more likely to occur in children younger than 5, the elderly or people with compromised immune systems.

What are the symptoms of diarrhea?

The symptoms of diarrhea may include frequent loose or watery stools, abdominal cramps and tenderness, fever, blood in the stool or generally not feeling well. Individuals can be infected but have minimal or no symptoms by still spread the germs to others.

How soon do symptoms appear?

Symptoms may be variable depending on the cause of diarrhea. Disease specific fact sheets can be accessed on the Oklahoma State Department of Health, Acute Disease Service website at <http://ads.health.ok.gov/>.

How are diarrheal illnesses spread?

Bacteria, viruses or parasites are spread in the stools of infected people. People who have diarrhea and do not wash their hands after they use the bathroom, particularly while they have diarrhea, can contaminate food, water, or other objects (toys, surfaces, etc.) which others then put in their mouths. Another way people may get diarrheal illness is from eating or drinking contaminated food or water, which is not common where public water systems are in place. Infected food handlers that do not wash their hands well with soap and water after using the bathroom may contaminate food items. Some bacteria, viruses, or parasites can also be spread through recreational water such as swimming pools, hot tubs, fountains, lakes, rivers, springs or streams that have been contaminated with sewage or feces.

Why are diarrheal illnesses a concern in childcare settings?

Children in diapers and those who are being potty-trained increase the risk of spread of diarrhea. Children in childcare centers are just learning about germs and hand hygiene practices. There are many surfaces and objects in childcare centers that are easily contaminated by infected children or workers. Childcare workers may be infected while changing diapers, by cleaning surfaces soiled with feces or by caring for an infected child if not following careful hand hygiene practices. Individuals in a childcare setting may then transmit germs further by working in multiple areas throughout the center or by performing multiple duties such as diaper changing and food handling.

Should someone with diarrhea work or attend a childcare setting?

Diarrheal infections are easily passed from person to person. Individuals that work in a childcare center should stay home if they are having diarrhea. Children may not attend a childcare setting with diarrhea, but may return 24 hours after diarrhea stops. If a child begins to have diarrhea, they should be safely separated from other children until the parent arrives to take them home.

What can be done to prevent diarrheal illnesses in childcare settings?

- Children with diarrhea should not attend childcare until 24 hours after the diarrhea has stopped. Childcare providers experiencing a diarrheal illness should not work until 24 hours after diarrhea has stopped.
- Use good hand hygiene habits such as washing hands with warm running water and soap for 20 seconds. This is the only way to effectively remove substances from soiled hands. Alcohol-based hand gels may be used on visibly clean hands to reduce the amount of germs present, but cannot remove dirt.
- Good hand washing means:
 - 1) Wet your hands with clean running water and apply soap.
 - 2) Rub your hands together to a lather and scrub all surfaces of your hands.
 - 3) Continue rubbing hands together for 20 seconds (imagine singing the “Happy Birthday” song twice).
 - 4) Rinse hands under running water.
 - 5) Dry hands with paper towels or an air dryer. If possible, use a paper towel to turn off the faucet.
 - 6) For children—observe hand washing or assist when needed. Wash children’s hands when they arrive at the childcare facility, after they use the toilet, after having their diapers changed, and before eating snacks or meals.
 - 7) For adults—Wash hands after using the toilet, after helping a child use the toilet, after diapering a child, after coughing or sneezing, and before preparing or serving food. (NOTE: Where staffing permits, people who change diapers should not prepare or serve food.)
- Soap, sinks with warm running water, paper towels and alcohol-based hand gel should be readily available and located throughout the center. Children should only use alcohol-based products under the supervision of an adult.
- Bleach solutions are recommended for disinfection except when the diarrheal illness is caused by *Cryptosporidium*. Hydrogen peroxide or ammonia solutions work best to kill *Cryptosporidium*.
- Routinely clean soiled surfaces with household cleaners.
- Diaper changing areas, food preparation areas, bathrooms, table-tops, benches, highchairs and other hard surfaces should be disinfected daily or whenever soiled.
- For infants and toddlers, toys that they may put in their mouths should be washed and disinfected between uses by children.
- Diapering and food-handling areas should be in separate areas to prevent cross-contamination. Adequate hand washing facilities should be easily accessible to these areas.
- Diaper-changing areas and children’s play areas should be in separate areas also.