



General Recommendations Regarding Diarrhea

What is it?

Diarrhea occurs commonly in young children. Occasionally the complications of diarrhea can be serious and life threatening. Diarrhea causes a loss of water and minerals (electrolytes, like potassium) and can cause dehydration. Children, and particularly infants can become dehydrated much more quickly than adults, so it is important that the fluid be replaced.

Diarrhea is considered the passage of bowel movements or stools that are more frequent, looser and more watery than usual. Stools may also appear a different color, such as green or yellow, have mucus, and in the case of a more severe illness have blood present. Diarrhea may be accompanied by complaints of stomachache, headache, fever or vomiting and is often referred to as gastroenteritis or “stomach flu.” It may last just a couple of days, although most episodes of non-acute diarrhea last from three to six days.

What causes diarrhea?

Diarrhea may result from a number of causes, including infection by a virus (such as enterovirus or rotavirus), bacteria (*E. coli*, *Shigella*, *Salmonella*, *Campylobacter*) or parasites (*Giardia*, amebas); some medications (such as antibiotics); food allergies; and food poisoning. Some children have very sensitive stomachs resulting in nervousness that can lead to diarrhea, and some foods such as cherries or grapes may lead to diarrhea in some children.

The most common cause of severe diarrhea is a result of contracting the rotavirus, an infection of the digestive tract. It affects four out of five children in the United States by age 5. The occurrence of rotavirus increases from November through April, and it is particularly common in child care settings.

How does it spread?

Infectious diarrhea spreads in several ways. It can spread from person-to-person when a child or adult comes into direct contact with virus or bacteria from the stool of an infected individual and then passes the virus to the mouth. This is called fecal-oral transmission. A person also can touch a surface that has been contaminated and then touch his or her mouth. In child care settings, the germs can be on a caregiver or child’s hand, toy, play surface, food and even in the water play table.

A recent study of child care centers showed that the most common form of fecal contamination was by the hands of children and staff. Children in diapers and caregivers who change their

diapers have an increased risk of getting diarrhea. Remembering to clean and sanitize the changing area and following good hand washing guidelines are key to preventing the spread. Gloves do not guarantee protection.

What are the signs and symptoms

Symptoms typically start with abdominal pain followed by loose stool that usually lasts no more than a few days. Other symptoms include fever, loss of appetite, nausea, vomiting, weight loss, and dehydration.

When is it contagious?

The contagious period can vary depending upon the cause of the diarrhea. 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. After exposure, another person may develop diarrhea from one day to weeks later, depending upon the specific infection.

How is it treated?

When a child care provider notices a child has diarrhea, the parent should be notified. If the child has other signs of illness, such as fever or vomiting, or if the diarrhea is frequent and the child is less than 2 years old, the child’s health care provider should be contacted for specific recommendations.

Because diarrhea causes frequent watery stools leading to loss of water and salts from the body, the most important treatment for a young child with diarrhea is to replace fluids. In the more common and milder form, there are no laboratory tests of the stools or antibiotics involved. **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.** Children under 3 years of age with severe diarrhea are even more at risk for becoming dehydrated due to loss of fluids in proportion to their small body size. Hospitalization for oral or intravenous rehydration is the cause of 10 percent of hospitalizations of children in the United States annually.

Child care providers and parents are now being advised to rehydrate children who show early signs of diarrhea in order to avoid potentially serious complications from dehydration. With the first signs of diarrhea, the child should be encouraged to drink small amounts of clear fluids frequently. A health care provider may recommend that an oral electrolyte solution (OES) such as

Pedialyte, Infalyte, or other generic brands be given. Whenever possible, give an oral electrolyte solution rather than juices, sport drinks, Kool-Aid or tea, which are high in sugar and may make the diarrhea worse. Anti-diarrhea medicines should NEVER be given to children unless prescribed by a physician. If the child has an appetite it is advisable to offer a normal diet but provide extra fluids.

Signs of dehydration

1. Inability / refusal to take fluids.
2. Decreased tears when crying, or decreased urination, which may mean a decreased number of wet diapers.
3. Dry, sticky mouth, increased thirst, sunken eyes or sunken soft spot (fontanel) on top of the head.
4. Unusual drowsiness or listlessness.

Exclude children for diarrhea when:

- Stool cannot be contained in a diaper or if causing accidents in toilet trained children
- Frequency of stools is 2 more than normal per day for the child
- Blood or mucous in the stool or stool that is all black or very pale
- Child is dehydrated
- Child not feeling well enough to participate or needs more care than staff can safely provide
- If the onset is abrupt and severe with fever and / or persists, or if the child has been exposed to infectious diarrhea, the child should see a health care provider for further examination and testing.

How you can help limit 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. The use of gloves does not replace the need to wash hands.
2. Staff and children should always wash their hands after using the toilet, after helping a child use the bathroom (assist toddlers and young children in washing their hands), and after diapering a child.
3. Staff and children should always wash hands before and after preparing, serving or eating food.
4. Children should always wash their hands upon arrival to the child care facility and after returning from playing outdoors throughout the day.
5. Disinfect toys, bathrooms and food preparation surfaces daily.
6. Use disposable paper towels for hand washing.
7. Use disposable table liners on changing tables and disinfect tables after each use.

8. 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.
9. If possible, children in diapers should have different caregivers and be in a separate room from those children who are toilet trained.
10. Children should always wear clothes over their diapers.
11. Always use diapers with waterproof outer covers that can contain liquid stool or urine, or plastic pants.
12. All knives, cutting boards and counters used for raw meat, chicken and fish should be washed thoroughly with hot, soapy water after each use and before using with any other food.
13. Never purchase spoiled food. Check dates on labels and store all perishables in refrigerator and serve immediately after preparation.
14. Do not allow children to drink from standing water sources such as wading pools.
15. Children should wash their hands before and after use of a communal water table and no child should drink from the table. Water should be changed daily.

IMPORTANT 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 cases of diarrhea caused by these infections.

Reintroducing foods after a case of diarrhea

Children who have mild diarrhea and are not dehydrated should continue to be fed age-appropriate diets. Most children with mild diarrhea should be able to tolerate formula or dairy products and breastfeeding should continue. If the child seems bloated or gassy after drinking dairy products or formula, then the health care provider should be notified to discuss a temporary change in diet. Fatty foods, or foods high in sugar, such as soft drinks and juices, should be avoided until stools have returned to normal.

References

Aronson, S. and Shope, T. (Eds.) (2009) *Managing Infectious Diseases in Child Care and Schools*, American Academy of Pediatrics.

Caring for Our Children: National Health and Safety Performance Standards: Guidelines for Out-of-Home Child Care Programs. Second Edition, 2002