

The Facts on Viral Diarrhea

Viral diarrhea is a common illness in all children but may be even more common for children in group settings such as classrooms or schools. Most cases are not severe and cause illness for no longer than one week. Symptoms include vomiting, diarrhea, cramps, and nausea.

This fact sheet is designed to give you some information on viral diarrhea.

Why children in group settings are at greater risk:

- Repeated close personal contact with other children and staff
- Underdeveloped immune systems
- Young children may not be fully toilet trained
- Young children put their hands in their mouth frequently
- Lack knowledge of basic hygiene

How can you be infected with these viruses?

These viruses pass from person to person through the “fecal-oral” route. The virus is passed in stool, and makes its way to another person through contaminated hands, food, objects, or through the air. The virus is then ingested or swallowed by another person, and they in turn become ill. It may only take a few virus particles to cause an infection. People are most likely to spread the virus from the beginning of symptoms to about three days into the illness. After three days, there is not as much virus, but it may be carried for one week or more after symptoms have disappeared. You can be “contagious” even once you are well.

These viruses are capable of surviving on surfaces such as tables, toys, or countertops for long periods of time, and contaminated surfaces may play a role in transmission of disease.

Treatment and prevention

There is no treatment other than fluid replacement to prevent dehydration. Antibiotics are not effective against viruses.

To limit transmission of these viruses:

- Limit exposure to people with diarrhea (if possible)
- Practice proper, thorough and frequent handwashing
- Clean and sanitize surfaces, washrooms and shared objects

Types of Viruses

Rotavirus:

This virus is the most common cause of severe diarrhea in children. By four years of age, most people have been infected with this virus and are immune. Immunity prevents or lessens the severity of symptoms if infection occurs again. One third of parents whose children have rotavirus become ill. Outbreaks due to rotavirus are common in child care centres, or anywhere children gather in groups. The number of outbreaks varies with the season, with the majority occurring in the cooler months.

Adenovirus:

These viruses also cause respiratory and urinary tract infections. Most children get this virus when younger than two years of age. Infections occur throughout the year with no distinct peaks. Illness usually lasts a week, which is longer than other enteric viruses. Diarrhea is more common than vomiting, and respiratory symptoms are sometimes present.

Calicivirus (Norovirus):

Most people get this infection between three months and six years of age, and almost all are affected by age twelve. Most outbreaks occur in groups of children. Vomiting and diarrhea are the most common symptoms, but respiratory symptoms can also occur.

Astrovirus:

Children under seven years of age are usually affected, but adults can have a mild illness. The incubation period is between 24 and 36 hours and the illness lasts 1-4 days. Contaminated water and shellfish have caused outbreaks.

Outbreaks

Outbreaks can generally be defined as an increase in illness above the expected, or “normal” rate. One general guideline that can be used as a rough indicator of an outbreak is a rise in the number of children or staff absent due to vomiting and/or diarrheal illness above what you would usually expect.

These viruses cause outbreaks in groups of people, particularly in institutions like nursing homes, schools, and child care centres because the population is generally more vulnerable and spends lots of time in close contact. The virus spreads quite easily from person to person. The only methods of limiting spread are scrupulous environmental cleaning, thorough and frequent handwashing, and exclusion of ill children and staff. It is therefore important that you keep your child home from school if they have symptoms of vomiting or diarrhea. Reporting your child’s illness to school staff is also important.

Children Should Be Excluded When Ill:

- To try to prevent spread of illness
- To ensure ill child is properly cared for

Children should stay home until they have had no symptoms for 48 hours to reduce the chances of them carrying the virus back to the child care centre.