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National Center for Immunization and Respiratory Diseases

Division of Viral Diseases

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Viral Gastroenteritis

What is viral gastroenteritis?

Gastroenteritis means inflammation of the stomach and small and large intestines. Viral gastroenteritis is an infection caused by a variety of viruses that results in vomiting or diarrhea. It is often called the "stomach flu," although it is not caused by the influenza viruses.

What causes viral gastroenteritis?

Many different viruses can cause gastroenteritis, including [rotaviruses](#); [noroviruses](#); [adenoviruses](#), types 40 and 41; [sapoviruses](#); and [astroviruses](#). Viral gastroenteritis is not caused by bacteria (such as *Salmonella* species or *Escherichia coli*), or parasites (such as *Giardia lamblia*), or by medications, or other medical conditions, although the symptoms may be similar. Your doctor can determine if the diarrhea is caused by a virus or by something else.

What are the symptoms of viral gastroenteritis?

The main symptoms of viral gastroenteritis are watery diarrhea and vomiting. The affected person may also have headache, fever, and abdominal cramps ("stomach ache"). In general, the symptoms begin 1 to 2 days following infection with a virus that causes gastroenteritis and may last for 1 to 10 days, depending on which virus causes the illness.

Is viral gastroenteritis a serious illness?

For most people, it is not. People who get viral gastroenteritis almost always recover completely without any long-term problems. Gastroenteritis is a serious illness, however, for persons who are unable to drink enough fluids to replace what they lose through vomiting or diarrhea. Infants, young children, and persons who are unable to care for themselves, such as the disabled or elderly, are at risk for dehydration from loss of fluids. Immune compromised persons are at risk for dehydration because they may get a more serious illness, with greater vomiting or diarrhea. They may need to be hospitalized for treatment to correct or

Rotavirus Vaccine Announcement

- ▶ [Prevention of Rotavirus Gastroenteritis Among Infants and Children Recommendations of the Advisory Committee on Immunization Practices \(ACIP\)](#)
 (February 6, 2009)

prevent dehydration.

Is the illness contagious? How are these viruses spread?

Yes, viral gastroenteritis is contagious. The viruses that cause gastroenteritis are spread through close contact with infected persons. Individuals may also become infected by eating or drinking contaminated foods or beverages.

How does food get contaminated by gastroenteritis viruses?

Food may be contaminated by food preparers or handlers who have viral gastroenteritis, especially if they do not wash their hands regularly after using the bathroom. Shellfish may be contaminated by sewage, and persons who eat raw or undercooked shellfish harvested from contaminated waters may get diarrhea. Drinking water can also be contaminated by sewage and be a source of spread of these viruses.

Where and when does viral gastroenteritis occur?

Viral gastroenteritis affects people in all parts of the world. Each virus has its own seasonal activity. For example, in the United States, rotavirus and astrovirus infections occur during the cooler months of the year (October to April), whereas adenovirus infections occur throughout the year. Norovirus infections occur year round but tend to increase in cooler months. Norovirus outbreaks can occur in institutional settings, such as schools, child care facilities, and nursing homes, and can occur in other group settings, such as banquet halls, cruise ships, dormitories, and campgrounds.

Who gets viral gastroenteritis?

Anyone can get it. Viral gastroenteritis occurs in people of all ages and backgrounds. However, some viruses tend to cause diarrheal disease primarily among people in specific age groups. Rotavirus infections are the most common cause of diarrhea in infants and young children under 5 years old. Adenoviruses and astroviruses cause diarrhea mostly in young children, but older children and adults can also be affected. Noroviruses infect persons of all ages, including older children and adults.

How is viral gastroenteritis diagnosed?

Generally, viral gastroenteritis is diagnosed by a physician on the basis of the symptoms and medical examination of the patient. Rotavirus infection can be

diagnosed by laboratory testing of a stool specimen. Tests to detect other viruses that cause gastroenteritis are not in routine use, but the viral gastroenteritis unit at CDC can assist with special analysis based on public health need.

How is viral gastroenteritis treated?

The most important of treating viral gastroenteritis in children and adults is to prevent severe loss of fluids (dehydration). This treatment should begin at home. Your physician may give you specific instructions about what kinds of fluid to give. CDC recommends that families with infants and young children keep a supply of oral rehydration solution (ORS) at home at all times and use the solution when diarrhea first occurs in the child. ORS is available at pharmacies without a prescription. Follow the written directions on the ORS package, and use clean or boiled water. Medications, including antibiotics (which have no effect on viruses) and other treatments, should be avoided unless specifically recommended by a physician.

Can viral gastroenteritis be prevented?

Persons can reduce their chance of getting infected by frequent handwashing, prompt disinfection of contaminated surfaces with household chlorine bleach-based cleaners, and prompt washing of soiled articles of clothing. If food or water is thought to be contaminated, it should be avoided. Rotavirus gastroenteritis can also be prevented by vaccines.

Is there a vaccine for viral gastroenteritis?

Currently there are two licensed rotavirus vaccines available that protect against severe diarrhea from rotavirus infection in infants and young children. These vaccines are given to children in their first year of life with other childhood vaccines.

For more information on viruses that cause viral gastroenteritis, see:

- [Rotavirus](#)
- [Norovirus](#)
- [Adenoviruses](#)

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