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**PUBLIC HEALTH  
EPIDEMIOLOGY & ASSESSMENT**

**Viral Gastroenteritis, including Norovirus Infections  
Questions and Answers**

*Modified from the following Centers for Disease Control and Prevention (CDC) webpages (accessed 12/11/08)*  
<http://www.cdc.gov/ncidod/dvrd/revb/gastro/faq.htm>, <http://www.cdc.gov/ncidod/dvrd/revb/gastro/norovirus-qa.htm>,  
<http://www.cdc.gov/ncidod/dvrd/revb/gastro/norovirus-foodhandlers.htm>.

**What is viral gastroenteritis?**

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

**What causes viral gastroenteritis?**

Many different viruses can cause gastroenteritis, including noroviruses, rotaviruses, adenoviruses, sapoviruses, and astroviruses. Viral gastroenteritis is not caused by bacteria (such as *Salmonella* or *Escherichia coli*) or parasites (such as *Giardia*), or by medications or other medical conditions, although the symptoms may be similar. Some of the viruses causing gastroenteritis are seasonal and occur mainly from October through April. Noroviruses (previously called Norwalk-like viruses) in particular have caused many outbreaks in the community, in institutions, nursing homes and hospitals, cruise ships, and other group settings.

**What are the symptoms of viral gastroenteritis?**

The main symptoms of viral gastroenteritis are watery diarrhea and/or vomiting. Other symptoms include nausea, headache, low grade fever, abdominal cramps ("stomach ache"), muscle aches, and/or tiredness. In general, the symptoms begin 1 to 2 days after infection 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. However persons, such as infants, young children, elderly, and those who cannot care for themselves, may be unable to drink enough fluids to replace what they lose through vomiting or diarrhea, and are at risk for dehydration (severe loss of fluids). Persons with weakened immune symptoms may also get a more serious illness, with more vomiting or diarrhea, and may also be at risk for dehydration. Some persons may need to be hospitalized for treatment of dehydration.

**Is the illness contagious? How are these viruses spread?**

Yes, viral gastroenteritis is contagious. The viruses that cause gastroenteritis are found in the stool (or vomit for some viruses such as norovirus) of infected people. The

viruses are spread through contact with infected persons or items or surfaces that have come into contact with stool (or even small droplets of vomit with some viruses such as norovirus) from an infected person. These contaminated surfaces may remain infectious for days if not disinfected appropriately. Individuals may also become infected by eating foods or drinking liquids contaminated with the virus. Food or beverages can be contaminated by contact with hands or work surfaces that are contaminated with stool or vomit from an infected person, or directly at the source of the food item, such as oysters harvested from waters contaminated with norovirus. Noroviruses in particular are very contagious; at least 50% of foodborne outbreaks of gastroenteritis and many outbreaks in institutions or group settings are thought to be due to noroviruses.

### **How is viral gastroenteritis diagnosed?**

Generally, viral gastroenteritis is diagnosed by a doctor by reviewing the symptoms and examining the patient. Stool testing for viruses is not routinely done, except sometimes for rotavirus. Orange County Public Health may be able to arrange for testing for norovirus if there is an outbreak or cluster of illness. Stool testing may be done by a doctor to rule out other causes of gastroenteritis, such as bacteria or parasites.

### **How is viral gastroenteritis treated?**

The most important part of treating viral gastroenteritis in children and adults is to prevent severe loss of fluids (dehydration). This treatment should begin at home. Your doctor may give you specific instructions about what kinds of fluid to give. Medications, including antibiotics (which have no effect on viruses) and other treatments, should be avoided unless specifically recommended by a doctor.

### **How long after illness can someone return to work or school?**

Viruses causing viral gastroenteritis can be shed in the stool for a couple of weeks after onset of illness, depending on the virus. In general, persons should not return to work or school at least until the diarrhea has stopped. However, exclusion for a longer time period may be recommended depending on the type of virus, the setting, and the affected person's responsibilities, contact with other persons, and hygiene. Persons infected with norovirus should not prepare or handle food for others until at least 3 days after their symptoms resolve. During an outbreak situation, stricter restrictions may be recommended. Strict handwashing and other hygiene practices are especially important for people recovering from gastroenteritis.

### **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 removal and washing of soiled articles of clothing. **Please see the fact sheet on Cleaning and Disinfection for more information.** Handwashing with soap and water is especially important after using the toilet, before eating or handling food or other objects that may have contact with the mouth, when hands are visibly soiled, and after removal of gloves after clean-up of vomit or stool. Raw fruits and vegetables should be washed thoroughly before eating. Oysters should be obtained from reputable sources and fully cooked.