



### **What is Norovirus?**

Norovirus is the most common cause of acute gastroenteritis (vomiting and diarrhoea) in humans. The infection occurs mainly during autumn and winter months but cases appear throughout the year.

### **Who gets norovirus?**

Anyone can be affected by norovirus. Because there are different strains of viruses it becomes difficult for individuals to develop long-term immunity. Hence norovirus infection can recur many times in one's lifetime. It is the common cause of diarrhoea and vomiting in outbreaks in community settings such as schools, nurseries, hospitals and others such as cruise ships.

### **What are the symptoms of norovirus?**

Norovirus infection usually presents with stomach cramps and nausea followed by forceful (projectile) vomiting and watery non-bloody diarrhoea. Fever may be present with chills, headache, muscle aches and tiredness. Vomiting is more common in children than adults. The illness is self-limiting.

### **When do symptoms appear?**

Symptoms of norovirus illness usually begin about 12 to 48 hours after being in contact with the virus and normally last 24 to 48 hours.

### **How long is the infectivity?**

Individuals are usually infectious from the moment they begin to feel unwell and may remain infectious for up to two days after the symptoms disappear. However the virus can stay for several weeks in children and those who are immunocompromised even after recovery. Because of this control measures are important to prevent the risk of secondary spread.

### **How do you catch norovirus?**

Norovirus is spread easily in the following ways:

- Hands can become contaminated when using the toilet or changing nappies. The virus can then be passed on to others either directly or indirectly via contaminated items if hands are not washed properly after these activities.
- Norovirus can spread through the air and infect others especially when close to an infected person who is vomiting. This happens by breathing in and swallowing the virus that get into the air from tiny droplets from the vomit or through cleaning up the vomit.
- Norovirus can survive on carpets and other soft furnishings for many days and can infect other people through contact with such items.
- By touching surfaces or objects infected with norovirus and then touching one's mouth or nose.
- Consumption of foods that have been contaminated by infected food handlers. Foods implicated are usually those eaten raw or not cooked after handling e.g. ready to eat foods such as sandwiches, salads, vegetables and fruit.
- Consumption of raw or insufficiently cooked contaminated shellfish, particularly oysters.

### **How will I know if I have norovirus?**

Diagnosis is usually based on the combination of symptoms and the history of the illness. If you are concerned you should talk to your doctor. Laboratory diagnosis of norovirus (testing of stool samples) is not routinely carried out.

### **How can I protect myself from norovirus?**

Good hygiene, particularly hand washing, is very important for preventing norovirus in individual households as well as in community settings and institutions e.g. nursing and residential homes, schools, nurseries, food establishments etc.

The following precautions should be taken routinely:

- Wash hands with liquid soap and warm water and dry thoroughly after visiting the toilet and before preparing or eating food. **Remember alcohol gel is not an appropriate substitute for handwashing.**

- Do not share towels. Used towels should be changed and washed frequently.
- Immediately remove and wash clothing or linens that may be contaminated with the virus on as hot a wash as the garment can tolerate (60°C). Institutions/establishments should follow their local policy on washing.
- Thoroughly clean and disinfect items and equipment that have been contaminated with vomit or diarrhoea with a bleach based product (1 part bleach to 1000 parts water) (follow manufactures instruction when diluting the bleach) Surfaces that are regularly touched such as handles/rails etc. should also be thoroughly cleaned frequently.
- Soiled carpets should be cleaned thoroughly with detergent and hot water. In institutions such as care homes and school, soiled carpets should be steam cleaned.
- Cook all shellfish thoroughly before eating.
- Wash raw vegetables, fruits and salads before eating them.
- Individuals who are infected with norovirus should not prepare food while they still have symptoms until 48 hours after symptoms have stopped.

### **How is norovirus treated?**

Presently, there is no medication that can be used to treat norovirus infection. Antibiotics are only used to treat bacterial infections and do not work on viruses. Those who become dehydrated as a result of severe diarrhoea and vomiting can be given oral rehydration fluids or in severe cases will require intravenous fluid in the hospital.

### **What extra measures can institutions take to control norovirus/gastrointestinal infections?**

- Individuals in care institutions/schools who become ill with norovirus infection should be excluded/isolated from other residents/school mates until 48 hours after symptoms stop.
- Dedicated toilet commode facilities should be provided for those affected in care institutions.
- All staff should pay particular attention to environmental cleaning and paper towels or disposable cloths should be used and discarded immediately.
- Hand washing with liquid soap and water is essentials and should be encouraged at all times. Disposable paper towels should be used for hand drying.

*School and care institutions are advised to refer to the PHE guidelines on prevention and management of outbreaks of diarrhoea and vomiting in schools and care homes for enteric precautions and advice on isolation/exclusion*

### **How long should I stay off from school/work/nursery?**

All individuals who are affected should stay off from work/school/nursery until they are completely free of symptoms for 48 hours.

### **Who should I contact if I think I have norovirus?**

If you think you have norovirus infection and are concerned you should contact either 111 or your GP for advice. You should avoid going to hospital with diarrhoea and vomiting if possible.

### **References:**

1. [www.cdc.gov/incidod/dvrd/revb.gastro/norovirus](http://www.cdc.gov/incidod/dvrd/revb.gastro/norovirus)
2. Hawker et al: 2006, Communicable disease control handbook; Blackwell Publishing
3. Chadwick et al (2000); Management of hospital outbreaks of gastro-enteritis due to small round structured viruses: The hospital infection society
4. Glass et al (2009) Norovirus Gastroenteritis; Review Article: New England Journal of Medicine