

# MAINE PUBLIC HEALTH ALERT NETWORK SYSTEM

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*Maine Department of Health and Human Services  
Maine Center for Disease Control and Prevention (Maine CDC)  
(Formerly Bureau of Health)  
11 State House Station  
Augusta, Maine 04333-0011  
Phone 1-800-821-5821 / Fax 207-287-7443*

**\*\*ADVISORY – Important Information\*\***

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**TO:** Long Term Care Facilities, Hospitals, Emergency Departments, Infection Control Practitioners, Schools, Day Care Centers, Rural Health Centers

**FROM:** Dora Anne Mills, M.D., M.P.H., Public Health Director

**SUBJECT:** **Outbreaks of Norovirus Gastroenteritis in Maine**

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## **Outbreaks of Norovirus Gastroenteritis in Maine**

**Background:** Since December 1, 2007, the Maine CDC has investigated seven reports of confirmed or suspected norovirus gastroenteritis outbreaks from six counties. Four of these reports have been laboratory-confirmed. Five outbreaks occurred in long term care facilities and two in elementary schools. Noroviruses are the principal cause of viral gastroenteritis in the United States. Circulation of norovirus infections typically increases during the winter months, and outbreaks are currently being reported also in other areas of the nation. The Federal CDC estimates that 23 million cases of acute gastroenteritis per year are due to norovirus infection.

**Clinical Presentation:** Norovirus infections are characterized by the abrupt onset of nonspecific gastrointestinal and constitutional symptoms, which usually include nausea, vomiting, diarrhea, and some stomach cramping. Additionally, some persons have low-grade fever, chills, headache, muscle aches, and malaise. In most people the illness is self-limiting with symptoms lasting for about 1 or 2 days. Dehydration is the most common complication and may require intravenous replacement fluids.

**Transmission:** Norovirus is very highly contagious and is transmitted in stool and vomitus. Exposure can result through direct contact with a person who is ill, by consuming food or liquids that are prepared or handled by an ill person, and through contact with surfaces or objects contaminated by vomitus or stool. The virus can persist on surfaces for prolonged periods at a wide range of temperatures. Noroviruses can also spread via a droplet route from vomitus.

**Diagnosis:** In outbreaks and clusters of illness, particularly in institutional settings, it is recommended that a diagnosis be confirmed through laboratory viral RNA by reverse transcriptase polymerase chain reaction (RT-PCR) testing of stool specimens at the Maine CDC's Health and Environmental Testing Laboratory (HETL). In any outbreak of diarrheal illness, stools should also be tested for bacterial and parasitic pathogens through the routine testing processes available in that setting.

### **Specimen Handling:**

- Stool specimens should be submitted in standard viral transport media such as M4. Collect a pea-sized quantity of formed stool, or less than 0.5m of liquid stool if liquid viral transport media is used.
- If the viral transport medium is not available, submit stool without any transport medium in a standard specimen container, which should be kept cool.
- Consider submitting specimens from 5-10 patients.
- Specimens submitted during a possible outbreak will be tested at no cost to the submitter or patient, though prior authorization is required.
- To report a possible institutional outbreak and to obtain epidemiologic support norovirus stool testing, call 1-800-821-5821.

**Clinical Management:** No specific therapy exists for norovirus gastroenteritis. Symptomatic therapy consists of replacing fluid losses and correcting electrolyte disturbances through oral and intravenous fluid administration.

**Prevention:** In the community, persons with acute gastroenteritis should be told that infection can be easily spread from person to person, and that both stool and vomit are infectious. Particular care should be taken by ill persons who prepare food for others, and with young children in diapers who may have diarrhea. Patients and their close contacts should wash their

hands frequently with soap and water, and should be aware that contagion will likely continue for at least 3 days after recovery from their symptoms.

- A. Food Workers: Food preparers and food handlers with gastroenteritis should not work until at least 2 days after their symptoms resolve. Because the virus continues to be present in the stool for as long as 2 to 3 weeks after the person feels better, strict hand washing after using the bathroom and before handling food items is important to prevent the spread of this virus. Food handlers who were recently sick may be given different duties in the restaurant so that they do not have to handle food.
- B. Health Care Facilities: Transmission of norovirus infection to and from patients and staff members occurs readily, and cases of gastroenteritis should be reported to infection control professionals as soon as possible. Contact Precautions should be used when caring for diapered or incontinent persons, during outbreaks in a facility, and when there is the possibility of splashes that might lead to contamination of clothing. Persons cleaning areas contaminated with vomitus or feces should wear surgical masks. In an outbreak setting, it may be prudent to place patients with suspected norovirus in private rooms or to cohort such patients. Environmental disinfection is important in preventing and controlling outbreaks. Health care facilities may consider limiting admissions and discharges, as well as elective procedures until outbreaks subside or until patients can be appropriately cohorted.
- C. Other Recommendations
  - a. Report suspected outbreaks of diarrheal illness to the 24-hour disease reporting line at Maine CDC 1-800-821-5821.
  - b. Schools and child care facilities should alert parents and request ill children remain at home during the symptomatic period and for at least 48 hours after last symptoms.
  - c. Infected individuals should refrain from food handling, patient care or child care, and recreational water activity, until at least 48 hours after symptoms have resolved.

**For More Information:**

- Contact the Maine CDC at 1-800 821-5821
- General information <http://www.cdc.gov/ncidod/dvrd/revb/gastro/norovirus-qa.htm> and [http://www.maine.gov/dhhs/boh/disease\\_specific\\_information.htm](http://www.maine.gov/dhhs/boh/disease_specific_information.htm)
- Health Care Facilities: [http://www.cdc.gov/ncidod/dhqp/id\\_norovirusFS.html](http://www.cdc.gov/ncidod/dhqp/id_norovirusFS.html)
- Maine Health and Environmental Testing Laboratory <http://www.maine.gov/dhhs/etl/divisions.htm>