



E. coli O157:H7 infection and hemolytic uremic syndrome (HUS)

Reportable to local or state health department.

Consult the health department before posting or distributing the Parent/Guardian fact sheet.

School health and childcare provider information

Cause

E. coli O157:H7 bacteria.

Symptoms

Watery or severe bloody diarrhea, stomach cramps, and low-grade fever. Symptoms usually last 5 to 7 days. Some infected persons may have mild symptoms or may have no symptoms.

In some instances, infection with *E. coli* O157:H7 may result in widespread breakdown of red blood cells leading to Hemolytic Uremic Syndrome (HUS). HUS affects the kidneys and the ability of blood to clot; it is more common in children under 5 years old and the elderly.

Spread

E. coli bacteria leave the body through the stool of an infected person and enter another person when hands, food, or objects (such as toys) contaminated with stool are placed in the mouth. Spread can occur when people do not wash their hands after using the toilet or changing diapers.

Cattle are also a source of these bacteria and people can be infected with *E. coli* O157:H7 through eating contaminated beef, eating fresh produce contaminated by cattle feces, or through contact with cattle or the farm environment.

Incubation

It takes from 1 to 10 days, usually about 3 to 4 days, from the time a person is exposed until symptoms develop.

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Contagious period

As long as *E. coli* O157:H7 bacteria are present in the stool (even in the absence of symptoms), a person can pass the bacteria to other people. In many children, the bacteria can be found in the stool for 2 to 3 weeks after symptom onset. In a small number of children, the bacteria may be present in stool for 2 to 3 months after symptoms have stopped.

Exclusion

Childcare

Until **24 hours after** diarrhea has resolved and two stool cultures obtained at least 24 hours apart have tested negative for *E. coli* O157:H7.

School

None, unless the child is not feeling well and/or have diarrhea and need to use the bathroom frequently. Exclusion may be necessary during outbreaks.

Anyone with *E. coli* O157:H7 should not go in lakes, pools, splash pads, water parks, or hot tubs until 2 weeks after diarrhea has stopped.

Staff with *E. coli* O157:H7 may be restricted from working in food service. Call your local health department to see if these restrictions apply.

Diagnosis

Recommend parents/guardians call their health care provider if their child has symptoms of *E. coli* O157:H7 or HUS. There is a lab test to detect *E. coli* O157:H7 in the stool. A health care provider needs to diagnose HUS.

Treatment

Diarrhea caused by *E. coli* O157:H7 usually goes away after a few days without any treatment. Antibiotics and drugs to stop diarrhea are usually not recommended because they may increase the risk of HUS. Treatment of HUS usually requires hospitalization and often dialysis (artificial kidney) and blood or platelet transfusions.

Prevention/Control

- Wash hands thoroughly with soap and warm running water after using the toilet and changing diapers. Wash hands before preparing or eating food. **Thorough handwashing is the best way to prevent the spread of communicable diseases.** Staff should closely monitor handwashing of all children after they have used the bathroom or have been diapered.
- Avoid having contact with cattle, particularly calves, at petting zoos or farms. Wash hands thoroughly with soap and warm running water after handling pets or other animals.
- Clean and disinfect diapering area and potty chairs after each use. Clean and disinfect bathroom toilets, sinks, and toys at least daily and when soiled (see Section 2).

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- Avoid swallowing water when in lakes, pools, splash pads, water parks, or hot tubs.
- Food safety
 - Thoroughly cook all foods that come from animals.
 - Make sure meat is cooked throughout (no longer pink) and any juices run clear.
 - Store all uncooked meat separately on a shelf lower than any other foods in the refrigerator.
 - Do not drink unpasteurized milk or unpasteurized juices.
 - Wash and disinfect all cutting boards, countertops, knives, utensils, and dishes that were used for raw meat or poultry before using with already cooked foods and with uncooked foods, such as fruits or vegetables.
 - Always wash hands, cutting boards, countertops, utensils, and dishes between uncooked and cooked foods.
 - Do not let children serve or prepare food for others in the childcare or school setting.
 - Minimize self-service food items in the school cafeteria and classroom (e.g., salad bars, trays of fruit, trays of desserts, etc.)

For more information, call Hennepin County HSPHD-Epidemiology at (612) 543-5230 or call your local health department.

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