



# Sarpy/Cass Department of Health & Wellness

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## FACT SHEET

### ***Escherichia coli* O157:H7**

- Cause:** *Escherichia coli serotype O157:H7; a powerful toxin producing bacterium.*
- Symptoms:** Sudden onset of severe bloody diarrhea and abdominal cramps; sometimes the infection causes non-bloody diarrhea or no symptoms. Usually little or no fever is present, and the illness resolves in 5-10 days.
- In some people, particularly children under 5 years of age and the elderly, the infection can also cause a complication called hemolytic uremic syndrome, in which the red blood cells are destroyed and the kidneys fail. About 8% of infections lead to this complication. In the United States, hemolytic uremic syndrome (HUS) is the principal cause of acute kidney failure in children, and most cases of HUS are caused by *E. coli* O157:H7
- Spread:** Major source is ground beef; other sources include consumption of unpasteurized milk and juice, sprouts, lettuce, spinach, salami, and contact with cattle. Waterborne transmission occurs through swimming in contaminated lakes, pools, or drinking inadequately chlorinated water. Organism is easily transmitted from person to person and has been difficult to control in child day-care centers.
- Incubation:** Onset of illness ranges from 2-10 days after exposure, most commonly in the 3-4 day range.
- Precautions:** Wear gloves in handling diapered or incontinent children or adults for the duration of illness.
- Reportable:** By Laboratory, MD office or LHD to the State.
- Diagnosis and Treatment:** Infection with *E. coli* O157:H7 is diagnosed by detecting the bacterium in the stool. All people who suddenly have diarrhea with blood should get their stool tested for *E. coli* O157:H7.
- Most people recover without antibiotics or other specific treatment in 5-10 days. There is no evidence that antibiotics improve the course of disease, and it is thought that treatment with some antibiotics may precipitate kidney complications. Antidiarrheal agents, such as loperamide (Imodium), should also be avoided.
- HUS is a life-threatening condition usually treated in an intensive care unit. Blood transfusions and kidney dialysis are often required. With intensive care, the death rate for HUS is 3%-5%.

**Prevention:**

- Cook all ground beef or hamburger thoroughly. Make sure that the cooked meat is gray or brown throughout (not pink), any juices run clear, and the inside is hot.
- If you are served an undercooked hamburger in a restaurant, send it back for further cooking.
- Consume only pasteurized milk and milk products. Avoid raw milk.
- Make sure that infected people, especially children, wash their hands carefully and frequently with soap to reduce the risk of spreading the infection.
- Drink municipal water that has been treated with adequate levels of chlorine or other effective disinfectants.
- Infected child care workers or attendees should be held out of the child care center until the diarrhea has stopped and two successive stool cultures are negative.