

***E. COLI* 0157:H7**

What is *E. coli* 0157?

E. coli O157:H7 is one of the hundreds of strains of the bacterium *Escherichia coli*. Most strains are harmless and live in the intestines of healthy humans and animals. However, the O157:H7 strain produces a powerful toxin that can cause severe illness. The bacteria can be found on a small number of cattle farms and can live in the intestines of healthy cattle.

Who gets *E. coli* 0157?

E. coli O157 lives in the intestines of healthy cattle and other animals. *E. coli* O157 can be found in water, food, soil, or on surfaces that have been contaminated with animal or human feces. Family members and playmates of children infected with *E. coli* O157 are at high risk of becoming infected.

People can become infected by:

- Eating contaminated food, such as undercooked hamburger and raw produce items, such as sprouts and lettuce.
- Drinking unpasteurized milk, juice, or cider.
- Swallowing recreational water contaminated with *E. coli* O157 (Recreational water includes lakes, streams, rivers, springs, ponds, swimming pools, hot tubs, Jacuzzis, and water park fountains).
- Contact with farm animals or pets.
- Touching contaminated surfaces or objects and then touching the mouth or putting a contaminated object into the mouth.
- Not washing hands after using the bathroom or changing diapers and then eating.

How is *E. coli* 0157 spread?

Infection with *E. coli* O157:H7 can be acquired by eating contaminated food or water and by contact with fecal material from infected persons or animals. Foods associated with *E. coli* O157:H7 infections are raw or undercooked beef (especially ground beef) and unpasteurized (raw) milk. Person-to-person spread of the bacteria is possible and has occurred in family settings, in daycare centers, and in nursing homes.

What are the symptoms of *E. coli* 0157?

Symptoms of *E. coli* 0157 infection include abdominal cramps and severe diarrhea that is often bloody. However, most people infected with *E. coli* 0157 do not have a fever or vomiting. Symptoms usually begin two to five days after exposure to the bacteria. Sometimes, infected people have no symptoms but can still pass the bacteria to others.

Office of Infectious Disease Epidemiology
24/7 Emergency Contact Number: 1-888-295-5156

Revised: 02/2023

Page 1 of 2

In some people, especially in children under 5 years old and the elderly, *E. coli* O157 infections can cause a complication called Hemolytic Uremic Syndrome (HUS). About 2% to 7% of *E. coli* O157 infections lead to HUS.

How soon do symptoms appear?

Symptoms last five to 10 days. People with mild symptoms usually recover on their own without treatment. Antibiotics are not helpful for treating *E. coli* O157 infections and may even increase the likelihood of developing HUS. Antidiarrheal agents should not be used.

Should an infected person be excluded from work or school?

Since the organism is passed in the feces, infected persons with diarrhea and those who are unable to control their bowel habits (particularly children in day care centers and individuals in nursing homes) should be excluded until they have two negative stool specimens.

What is the treatment for *E. coli* O157?

Treatment with antibiotics has not been shown to be effective. Antibiotic treatment does not alter the severity or duration of diarrhea or shorten the time that someone has *E. coli* O157:H7 in their stool. More importantly, antibiotic treatment does not reduce the risk of developing complications of *E. coli* O157:H7 infection and may, in fact, increase the risk of developing HUS. It is important to prevent and treat dehydration. HUS may require hospitalizations for transfusions and kidney dialysis.

What can a person or community do to prevent the spread of *E. coli* O157?

- Avoid drinking unpasteurized (raw) milk or unpasteurized milk products.
- Avoid drinking unpasteurized fruit juices (e.g., apple juice or apple cider).
- Always carefully wash your hands with plenty of soap and water after bowel movements, and before and after food preparation. Parents should teach proper handwashing habits to their children.
- Wash hands following contact with cattle and cattle fecal material, including manure used for farming or domestic gardening practices.

Resources

Centers for Disease Control and Prevention:

<https://www.cdc.gov/ecoli/>

https://www.cdc.gov/healthywater/drinking/private/wells/disease/e_coli.html

Office of Infectious Disease Epidemiology
24/7 Emergency Contact Number: 1-888-295-5156

Revised: 02/2023

Page 2 of 2