

E-coli O157:H7 and Hemolytic Uremic Syndrome (HUS)

Frequently Asked Questions

QUESTION: What is Escherichia coli O157:H7?

ANSWER: E. coli O157:H7 is one of hundreds types of the bacterium Escherichia coli. Although most bacteria are harmless, this bacterium produces a toxin and can cause severe illness.

Where does E. coli O157:H7 live?

A: The bacteria can be found in livestock. Meat can become contaminated during the slaughter and handling process. Transmission to humans can come from animal feces, or environmental sources such as contaminated hay or feed.

How is E. coli O157:H7 spread?

A: Eating meat, especially ground beef that is not well done or cooked to 160 degrees Fahrenheit can cause infection. Livestock can have E. coli O157:H7 and show no signs of illness. Contaminated meat can look and smell normal.

Among other known sources of infection are petting zoo's and animal exhibits that allow contact with animals, consuming improperly prepared sprouts, lettuce, salami, unpasteurized milk and juice, and swimming in or drinking contaminated water. Pets and livestock or humans suffering from diarrhea may contaminate water.

Through improper hygiene, bacteria in human feces of infected people can be passed from one person to another. Proper hand washing is the most effective method of avoiding this source of infection.

What illness does E. coli O157:H7 cause?

A: An E. coli O157:H7 infection often causes 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 goes away in 5 to 10 days.

In some people, particularly children younger than 5 and the elderly, the infection can cause a complication called hemolytic uremic syndrome (HUS), in which the red blood cells are destroyed and the kidneys fail. About 8 percent of infections lead to this complication.

What are the long-term consequences of infection?

A: People who have only diarrhea usually recover completely.

About one-third of people with HUS have abnormal kidney function years later, and a few require long-term dialysis. An additional 8 percent of people with HUS have lifelong complications, such as high blood pressure, seizures or paralysis.

What can be done to prevent the infection?

A: Personal hygiene, especially careful and consistent hand washing practices is a simple and very effective method of infection prevention.

Wash your hands carefully after contact with domestic animals or livestock. Parents should control the amount of contact children have at petting zoos and supervise their child's clean up during and after contact. Parents may want to consider a change of clothes and shoes in case these items become contaminated by animal manure.

Make sure that people with diarrhea, especially children, wash their hands carefully with soap after bowel movements and that people wash hands after changing soiled diapers. Anyone with a diarrheal illness should avoid swimming in public pools or lakes, sharing baths with others and preparing food for others.

Cook ground beef until a meat thermometer reads at least 160 degrees Fahrenheit. Avoid eating ground-beef patties that are still pink in the middle.

Keep raw meat separate from ready-to-eat foods to avoid cross contamination. Wash your hands, counters and utensils with hot soapy water after they touch raw meat.

What should I do if I think I am infected?

A: If you have had diarrhea of varying intensity, including bloody diarrhea and you recently attended a fair or festival in Florida please contact your health care provider or your county health department.

If you are caring for someone who is suspected of being infected with E.coli O157:H7 please contact your health care professional or the county health department to discuss proper hygiene procedures.

What is PFGE Testing?

A: PFGE testing is a laboratory test that provides a unique "fingerprint" of bacteria and can be compared to other bacteria fingerprints to see if they are identical or not.

How is PFGE testing useful to tracking the source of an infection?

A: Currently there are cases of E coli O157:H7 that our PFGE testing has shown to have identical fingerprints. This information indicates that several cases acquired this infection from the same source.

Because the PFGE fingerprints are identical, we know we have to look for a common source of infection that was present at all locations.

At this time, the common link seems to be a petting zoo, but the investigation is still on going.