

## Escherichia coli (E. coli O157:H7)

### What is E. coli O157:H7?

E. coli O157:H7 is a strain of the bacterium Escherichia coli (E. coli) that can live in the intestine of cattle, poultry and many other animals, without causing them any harm. If people become infected with E. coli O157:H7 they may develop a serious illness.

Many people get sick from E. coli O157:H7 by eating food and drinking beverages containing the harmful bacteria. Once the bacteria enter the body, it begins to multiply and releases toxins.

### How is E. coli O157:H7 spread?

E. coli O157:H7 bacteria infect the intestine of cattle. When the animals are slaughtered, the bacteria may contaminate the outer surface of the meat. Fruits and vegetables can become contaminated while in the field by improperly composted manure, contaminated water or wildlife.

E. coli O157:H7 infections can also be spread by eating or drinking contaminated food or water.

Once someone becomes infected with E. coli O157:H7, the infection can be passed from person-to-person by hand-to-mouth contact (fecal-oral route).

This is particularly likely among toddlers who are not toilet trained. Family members and playmates of these children are at higher risk of becoming infected. In fact, bacteria can be present in the stools of young children one to two weeks after their symptoms have gone away. Older children rarely carry the organism without symptoms.

### Where is E. coli O157:H7 found?

In most cases E. coli comes from products that may carry the bacteria including:

- undercooked ground beef and hamburgers
- unpasteurized milk and juices
- ham, turkey and roast beef sandwich meats
- raw fruits and vegetables including sprouts
- cheese made from unpasteurized milk
- untreated water
- petting zoos

### What are the symptoms?

Some people infected with E. coli O157:H7 do not get sick at all. Most people develop stomach cramps and diarrhea within two to ten days after eating contaminated food. Some people may have bloody diarrhea. Persons who only have diarrhea usually recover completely.

About five to ten per cent of people who become infected with E. coli O157:H7 or other toxin forming strains of E. coli, develop Hemolytic Uremic Syndrome (HUS). People with HUS may require hospitalization, blood transfusions and/or kidney dialysis. Most people with HUS recover fully, but occasionally HUS can be life threatening. Others experience side effects such as permanent kidney damage.

Pregnant women, young children, those with weakened immune systems and the elderly are at higher risk for complications after E. coli O157:H7 infection.

## How is an E. coli O157:H7 infection diagnosed?

Infection with E. coli O157:H7 is diagnosed by detecting the bacterium in the stool.

## How can I prevent an E. coli O157:H7 infection?

- Hand washing is one of the best ways to prevent the spread of infection. Persons with diarrhea, especially children, must wash their hands carefully with soap and water after bowel movements to reduce the risk of spreading infection.
- Children and the elderly may need assistance with hand washing. If hands are visibly clean and soap and water are not available, use hand sanitizer to kill harmful bacteria that may be present on hands.
- Anyone with a diarrheal illness should avoid swimming in public pools or lakes, sharing baths with others and preparing food for others.
- All ground beef and hamburgers should be thoroughly cooked. Use a digital instant-read meat thermometer to ensure thorough cooking. Ground beef should be cooked until a thermometer inserted into the thickest part of the patty reads at least 71° C (160° F).
- Avoid spreading harmful bacteria in your kitchen. Keep raw meat separate from ready-to-eat foods and wash your hands, counters and utensils with hot soapy water after they touch raw meat. Never place cooked meat on an unwashed plate that held raw meat. Wash meat thermometers in between tests.
- It is safest to drink only pasteurized milk and dairy products.
- Drink juice and cider that is shelf stable, pasteurized, or boiled.
- Wash fruits and vegetables thoroughly, especially those that will not be cooked.
- Drink water that has been treated and is safe for human consumption.
- Look for beach safety information and avoid swallowing lake or pool water while swimming.