

Escherichia coli (E. coli) O157

Frequently Asked Questions about *E. Coli*

What is *E. Coli*?

E. Coli are bacteria that normally live in the intestines and are mostly harmless and necessary. But, there are some that can make you sick and cause diarrhea (watery bowel movements) and/or urinary tract infections, respiratory illness and pneumonia, and other illnesses. *E. coli* produces a powerful toxin that can cause severe illness.

How common are *E. Coli* infections?

No one knows for sure but the best estimate is 100,000 infections occur in the United States each year.

How do people get *E. coli*?

Most illness has been due to eating undercooked ground beef. Other cases have been traced to drinking unpasteurized (raw) apple juice/cider, raw milk, eating produce contaminated by animal feces, and recreational exposure in contaminated water. Person-to-person contact in families and childcare centers due inadequate hand washing can cause further transmission.

What are the symptoms of *E. coli*?

Infections can be very mild, and even have no symptoms, or very severe, and sometimes fatal. *E. coli* usually causes diarrhea, often bloody, and often with vomiting or severe stomach cramps. If fever occurs it is usually very mild. Symptoms can last two to ten days.

What are the complications of *E. Coli* infection?

In some persons, mostly young children, the infection can also cause kidney failure. About 8% of reported infections lead to this problem. It can be a life-threatening condition.

How is *E. coli* diagnosed?

E. coli infection is diagnosed by testing a bowel movement (stool [poop] culture).

How is an *E. coli* treated?

There are many different treatments that are used depending on the individual symptoms. There is no one treatment that is effective against *E. coli*. Some antibiotics may increase the risk of problems. Anti-diarrheal agents, such as loperamide (Imodium®), should be avoided. Some patients become dehydrated and may need an IV. Complications are usually treated in an intensive care unit.

How is *E. coli* spread?

E. coli is spread by eating undercooked meat (usually hamburger), drinking unpasteurized (raw) milk or juice, swallowing polluted water (drinking water, pool water, rivers, lakes), or eating hard-to-clean raw vegetables (like sprouts or lettuce) contaminated with the bacteria. It can also be spread from an infected person to others if hands are not washed well after using the toilet.

Are infected persons contagious?

Bacteria in bowel movements of infected persons can be passed from one person to another if hand washing is poor. This is most common among toddlers who are not potty-trained. After a person gets over the illness, they can continue to shed (get rid of) the bacteria through their bowel movements for

several more weeks or even months. Some people who shed these bacteria may not have had any symptoms of illness, so hand washing is always important even when someone is not sick.

Where does *E. coli* come from?

The bacteria are common in herds of healthy cattle and have been found in deer, sheep, goats, and other animals. Meat or milk infected with animal waste can lead to disease, unless the bacteria are killed by cooking. Meat can become contaminated while being butchered. The bacteria may also be passed from the animal's waste to a nearby water source.

Ways to avoid getting *E. coli* infections:

- Cook all meat thoroughly. Because ground beef can turn brown before disease-causing bacteria are killed, use a digital instant-read meat thermometer. Ground beef should be cooked until a thermometer reads at least 160°F. Be sure to insert the thermometer into several different parts of the patty, including the thickest part. If you do not use a thermometer, do not eat ground beef patties that are still pink in the middle. If you get an undercooked hamburger or other ground beef product in a restaurant, send it back for more cooking. Make sure you get a new bun and a clean plate, too.
- Treat game meat (for example, venison [deer]) with the same care used for store-bought meat.
- Keep harmful bacteria out of your kitchen. Keep raw meat separate from ready-to-eat foods. Wash hands, counters, and utensils with hot soapy water after they touch raw meat. Never put cooked meat on an unwashed plate or surface that had raw meat on it. If you use a meat thermometer, wash it between testing each meat item you are cooking.
- Wash fruits and vegetables thoroughly, especially those that will not be cooked.
- Drink only pasteurized milk, juice, and cider. Juice sold at room temperature (juice in cardboard boxes, vacuum-sealed juice in glass containers, for example) has been pasteurized but it is not shown on the label most of the time. Concentrated juices are also heated enough to kill bacteria.
- Raw sprouts can carry *E. coli* and therefore should be avoided. Alfalfa, clover, and other kinds of uncooked sprouts are well-recognized potential sources for this and similar bacteria.
- Don't drink water from rivers or streams, unless it has been treated.
- Avoid swallowing lake or pool water while swimming. Don't let small children go into public swimming areas.

To reduce the risk of spreading infection, wash your hands carefully with soap and water after:

- changing diapers
- using the toilet
- handling meat