

New York State Department of Health

E. coli 0157:H7 Infection

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What is Escherichia coli (*E. coli*) 0157:H7 infection?

E. coli are bacteria that normally live in the intestines of humans and animals. Although most strains of this bacteria are harmless, several are known to produce toxins that can cause diarrhea. One particular *E. coli* strain called 0157:H7 can cause severe diarrhea and kidney damage.

Who gets *E. coli* 0157:H7 infection?

Anyone of any age can become infected with *E. coli* 0157:H7, but children and the elderly are more likely to develop serious complications.

How does one get infected with *E. coli* 0157:H7?

The bacteria are acquired by eating food containing the bacteria. The bacteria live in the intestines of some healthy cattle, and contamination of the meat may occur in the slaughtering process. Eating meat that is rare or inadequately cooked is the most common way of getting the infection. Infection can also occur after consuming foods such as lettuce, alfalfa sprouts, salami, and unpasteurized milk, juice or cider. Person-to-person transmission can occur if infected people do not wash their hands after using the toilet.

What are the symptoms of *E. coli* 0157:H7 infection?

People infected by *E. coli* 0157:H7 can develop a range of symptoms. Some infected people may have mild diarrhea or no symptoms at all. Most identified cases develop severe diarrhea and abdominal cramps. Blood is often seen in the stool. Usually little or no fever is present.

How soon after exposure do symptoms appear?

The symptoms usually appear about three days after exposure, with a range of one to nine days.

How is infection with *E. coli* 0157:H7 diagnosed?

Infection with *E. coli* 0157:H7 can only be diagnosed by a special stool culture that is not performed in many laboratories. Public health authorities have advised doctors and laboratories to consider performing a special stool culture test for *E. coli* 0157:H7 particularly in people with bloody diarrhea.

What is the treatment for infection with *E. coli* 0157:H7?

Most people recover without specific treatment in five to 10 days. Antibiotics should not be used for the treatment of *E. coli* 0157:H7 infection. Studies have shown that some antibiotics may increase the risk of complications.

What complications can result from infection with *E. coli* 0157:H7?

In some people, particularly children under five years of age, the infection can cause a complication called hemolytic uremic syndrome (HUS). This is a serious disease in which red blood cells are destroyed and the kidneys fail. Transfusions of blood or blood clotting factors as well as kidney dialysis may be necessary. A prolonged hospital stay is often required. Fortunately, most people with HUS recover completely, but it can be fatal.

How can infection with *E. coli* 0157:H7 be prevented?

Do not eat undercooked hamburger or other ground beef products. Cook all ground beef and hamburger thoroughly. Make sure the cooked meat is brown throughout (not pink), and the juices run clear. Drink only pasteurized milk, juice or cider. Wash fruits and vegetables thoroughly, especially those that will not be cooked. Children under five years, immunocompromised persons, and the elderly should avoid eating alfalfa sprouts. Make sure infected people, especially children, wash their hands carefully with soap after using the toilet to reduce the risk of spreading the disease.

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