E. coli O157:H7 Infection

Further Information Wadsworth Center for Laboratories and Research

What is Escherichia coli (E. coli) O157:H7 infection?

E. coli are bacteria that normally live in the intestines of humans and animals. Although, most strains of these 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 O157:H7 infection?

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

How does one get infected with E. coli O157: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. 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 O157:H7 infection?

People infected by E. coli O157: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 O157: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 an increase in complications has been associated with the use of antibiotics in the treatment of this particular infection.
What complications can result from infection with E. coli O157: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 O157: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 and milk products. 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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Questions?

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