

E. coli

Frequently Asked Questions

What is *Escherichia coli* O157:H7?

Escherichia coli (esh-er-ish-ee-ah coal-eye) are bacteria that normally live in the intestines of healthy people and animals, primarily cattle. Most strains of this bacteria are harmless. *E. coli* O157:H7 is a specific strain of *E. coli* that causes illness. It was first recognized as a cause of illness during an outbreak of hemorrhagic colitis (severe bloody diarrhea) in 1982. The cause of that outbreak was traced to hamburgers contaminated with *E. coli* O157:H7 bacteria.

Who gets *E. coli* O157:H7 infection?

Anyone can become infected with *E. coli* O157:H7. The elderly and children under five years of age are at greatest risk of developing a serious illness from *E. coli* O157:H7 infection.

How is *E. coli* O157:H7 infection spread?

A person becomes infected with *E. coli* O157:H7 by swallowing the bacteria. This can occur when a person eats food which has been contaminated with *E. coli* O157:H7, most frequently undercooked ground beef and raw milk. Transmission also can occur directly from person to person in families, child care centers and custodial institutions. Outbreaks have also been traced to contaminated water.

What are the symptoms of *E. coli* O157:H7 infection?

The symptoms of *E. coli* O157:H7 infection are variable. Symptoms of illness usually appear about 3 days after swallowing the bacteria but, can range from 1 to 8 days.

Some people have no symptoms (asymptomatic). Others may have mild to severe diarrhea, which may contain blood. Abdominal cramps, nausea and vomiting may occur. Usually there is little or no fever present. A small number of people develop complications, such as hemolytic-uremic syndrome (HUS). Death due to *E. coli* O157:H7 infection occurs infrequently, usually as a result of a complication of the infection.

What is hemolytic-uremic syndrome (HUS)?

HUS is an infrequent and serious complication of *E. coli* O157:H7 infection, particularly in children under five years old. It is characterized by renal failure, or loss of kidney function. Many people with HUS also develop anemia or a bleeding problem. Hospitalization and dialysis are usually necessary until kidney function recovers. Many people with HUS have some permanent partial loss of kidney function after they have recovered.

How is *E. coli* O157:H7 infection diagnosed?

An infection with *E. coli* O157:H7 is diagnosed by testing the patient's stool for *E. coli* O157:H7 bacteria. This is a special laboratory test that your doctor must order if he or she feels you have *E. coli* O157:H7.

What is the treatment for *E. coli* O157:H7 infection?

Most people who become ill with *E. coli* O157:H7 infection recover on their own within a week. Some however may require hospitalization to administer intravenous (IV) fluids to prevent dehydration. Antibiotics may be prescribed by a physician to treat severe cases of illness.

Can people with *E. coli* O157:H7 pass the illness to others?

An infected person can spread *E. coli* O157:H7 infection to others as long as the *E. coli* bacteria are being passed in his/her stool. This usually lasts no longer than 1 week, but it can last as long as 3 weeks in a third of children.

Should an infected person be excluded from work or school?

Most infected people may return to work or school when they no longer have diarrhea and fever. Since the *E. coli* bacteria may continue to be in their stool for several weeks, infected people should wash their hands with soap and water, especially after every bathroom visit.

Special precautions are indicated for food handlers, health care workers, child care providers and children attending child care. If these people are infected with the bacteria, they may put others at risk for the illness.

- Food handlers should be excluded from cooking, preparing and touching food until they have no symptoms and have two negative stool tests.
- Health care workers should be excluded from direct patient care/contact until they have no symptoms and have two negative stool tests.
- Child care providers and/or child attendees should be excluded from work/attending child care until they have no symptoms and have two negative stool tests. Stools of all child care staff, attendees and household contacts with diarrhea, should be tested.

Please note: Two negative stool tests should be taken at least 24 hours apart and at least 48 hours after antibiotic treatment has ended (if antibiotic therapy is given).

What can be done to prevent *E. coli* O157:H7?

- Cook ground beef or hamburger thoroughly. Make certain the cooked meat is gray or brown color throughout (not pink) and the meat juices run clear; the inside should be hot.
- Eat and drink only pasteurized milk and milk products (for example, cheese). Do not drink unpasteurized apple cider and untreated water.
- Anyone who has diarrhea should not use a pool or swim in a pond.
- Carefully wash hands after changing diapers and using the toilet.

General steps to prevent spreading germs in the kitchen:

- Raw meats should be kept away from fruits, vegetables, cooked foods and all ready-to-eat foods.
- Use separate cutting boards for meat and other foods. Carefully clean all cutting boards, counter-tops and utensils with soap and hot water after preparing raw meat, poultry, eggs or seafood.
- Wash your hands carefully after handling uncooked foods. Hands should be washed between handling different food items.
- Wash your hands with soap after touching animals or their droppings.
- Anyone with diarrhea should not prepare food for others.

Where can I get more information?

- Your health care provider
- Your local health department
- NJ Department of Health www.nj.gov/health
- Centers for Disease Control and Prevention <http://www.cdc.gov/ecoli>

This information is intended for educational purposes only and is not intended to replace consultation with a health care professional. Adapted from Centers for Disease Control and Prevention.