

Shiga Toxin-Producing *Escherichia coli* (STEC)

What is Shiga Toxin-Producing *Escherichia coli* (STEC)?

Escherichia coli are bacteria that normally live in the intestines of humans and animals such as cows. Most strains of the *E. coli* bacteria do not cause illness. However, Shiga toxin-producing *E. coli* (STEC) can cause serious illness in humans. *E. coli* O157:H7 is the most common type of STEC, but other serotypes exist.

Who can get STEC infection?

Anyone, but it appears to be more common in children than in adults.

How is STEC infection spread?

A person can become infected with STEC after consuming food or drinks contaminated with the bacteria. The most common cause of STEC infection is undercooked contaminated ground beef; however, other sources have included unpasteurized milk and juice, salami, produce (e.g., sprouts, lettuce, spinach), and swimming in feces-contaminated water. An infected foodhandler can contaminate food if they do not wash their hands after going to the bathroom. Hands contaminated while changing diapers can spread the disease (e.g., in daycares). Animal-to-human spread by hand to mouth after contact with contaminated surfaces or animals (e.g., at agricultural fairs, petting zoos, farm visits) can occur. Ingesting or perhaps breathing in contaminated dust could infect fairgoers and visitors to petting zoos.

What are the signs and symptoms of STEC infection? Can it cause severe problems?

Some people who are exposed to STEC do not become ill. Others may develop stomach cramps and watery bloody diarrhea. Other symptoms may include vomiting, fever, and chills. In severe cases, the infection can damage other organs, such as the kidneys.

How soon do signs and symptoms of STEC infection appear?

Signs and symptoms may start within two to eight days after exposure, but most often occur within 3-4 days.

How long can an infected person spread STEC?

An infected person can spread the bacteria to others for as long as the bacteria remain in the stool (usually one week, but up to three weeks in children).

Should infected people be excluded from school or work?

Since the bacteria are passed in the feces, children in daycare, healthcare workers, or people who handle food should not go to school or work while they have diarrhea. After diarrhea ends, the health department will help determine when an infected person may return to work or school. Some people may not be able to go back to day care or work until two stool specimens test negative for the bacteria.

What is the treatment for STEC?

Most people get well on their own within 5-10 days, but it is important that anyone having bloody diarrhea seek medical attention. Antibiotics do not appear to help people get better faster and are not usually indicated. Persons with diarrhea should drink plenty of liquids to prevent dehydration. Drugs that stop diarrhea (e.g., Imodium) should not be used.

How can STEC infection be prevented?

1. Never eat rare or undercooked ground beef - cook to an internal temperature of 160°F.
2. Keep raw meat separate from ready-to-eat foods. Wash hands, counters, utensils, and plates after contact with raw meat.
3. Do not drink unpasteurized milk, milk products, fruit juices, or ciders.
4. Always wash any raw fruits or vegetables before eating.
5. Always carefully wash hands before and after preparing foods.
6. Always refrigerate meat products. Never leave raw meats at room temperature.
7. Make sure children wash their hands carefully, especially after using the toilet or handling animals.
8. Always wash hands with soap and warm water after using the toilet or changing diapers.
9. Persons with diarrhea should not use public swimming facilities.
10. Clean and disinfect diapering areas, toilets/potty chairs, toys, etc. at least daily and when soiled.