

# Fact Sheet: Shiga-toxin Producing *E. coli* (STEC)



## What is Shiga-toxin producing *E. coli* (STEC)?

*E. coli* are bacteria (germs) that normally live in the intestines of people and animals. There are many strains of *E. coli*, most of which are harmless. Some strains, however, cause illness by making a toxin called Shiga toxin. These strains are known as Shiga-toxin producing *E. coli* (STEC).

## How is STEC spread?

STEC must be swallowed to cause infection. Unfortunately, this happens more than you would think. The most common ways STEC is spread are:

- Eating food or drinking water containing human or animal waste
- Eating raw or undercooked beef (especially ground beef)
- Eating or drinking unpasteurized dairy products or juices
- Eating unwashed fruits or vegetables
- Contact with cattle or other infected animals
- Contact with the feces of infected people or animals

## What are the symptoms of STEC?

The most common symptoms of STEC are:

- Severe stomach cramps
- Diarrhea (often becomes bloody)

Less commonly, individuals infected with STEC could develop the following:

- Vomiting
- Mild fever

## How soon do infected people get sick?

Symptoms of STEC typically appear 3-4 days after exposure to the bacteria. In some cases, symptoms can appear as early as 1 day or as late as 10 days.

In a small number of cases, STEC can cause a rare but serious problem called Hemolytic Uremic Syndrome (HUS). If HUS occurs, it typically develops around 7 days after the first symptoms of STEC. Children under five years of age and the elderly are most at risk for developing HUS. Most people who get HUS will regain their health with no remaining blood or kidney problems.

## How is STEC treated?

If you think you have been exposed to STEC, call your doctor for a stool sample. Treatment with antibiotics has not been shown to be helpful and may increase the risk of developing HUS. Medicines to stop diarrhea are also not recommended, and may increase the risk of HUS.

Drink plenty of fluids to replace the fluids being lost due to diarrhea, and to avoid dehydration.

A person who is sick with STEC ***should not handle food or care for patients, children, or the elderly.*** Food service workers, healthcare workers, and childcare workers should report illness to their supervisor and stay home from work until approved by your local health department or doctor.

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### How can STEC be prevented?

STEC usually disappears from the feces of infected individuals by the time the illness is resolved. However, the bacteria can be shed (released) in the feces for several weeks after symptoms go away. Young children typically shed STEC longer than adults, sometimes for several months. Good hand-washing and diapering practices are very important in protecting yourself, your family, and other individuals.

Other important ways to prevent STEC are:

- Wash your hands before and after handling food (especially raw meat), before eating, after using the toilet, and after changing diapers.
- Wash your hands after contact with animals or their environments (such as fairs, farms, or petting zoos).
- Cook meats thoroughly. Ground beef or meat that has been needle-tenderized should be cooked to a temperature of 160° F (until meat is no longer pink and juices run clear).
- Do not place cooked meat on the same dish used to hold raw meat
- Wash counters and cutting boards after each use with hot, soapy water. Disinfect surfaces with a solution of one teaspoon bleach in one-half gallon of water (make fresh solution every day). Consider using one cutting board specifically for meats to avoid cross-contamination.
- Wash all fruits and vegetables, especially those that will be eaten raw.
- Avoid unpasteurized or “raw” milk, dairy products (such as soft cheeses), and juices (such as fresh apple cider).

- Avoid swallowing water from pools, lakes, ponds, streams, or any other untreated water source.
- Keep infected children away from other children and from the elderly. Follow your local health department’s guidelines for returning to school or daycare.

*This fact sheet is for information only and is not meant to be used for self-diagnosis or as a substitute for consultation with a health care provider. For more information call your health care provider or call Kent County Public Health at 616.632.7100.*

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