



Indiana State Department of Health

Epidemiology Resource Center

Quick Facts

About...Shiga toxin-producing *E. coli*

What is Shiga toxin-producing *E. coli*?

Escherichia coli (esh-uh-rik-ee-uh koh-lie) is a bacterium that lives in the intestines of most healthy warm-blooded animals, including humans. There are hundreds of strains of *E. coli*, and most are harmless. However, there are several types of *E. coli*, such as *E. coli* O157:H7, that make a toxin called "Shiga toxin" that can cause a severe and contagious illness in humans. About 6% of people (and 15% of children younger than 5 years) infected with Shiga toxin-producing *E. coli* can develop a condition called hemolytic uremic syndrome (HUS). This condition is very serious and can lead to kidney failure and even death.

What are the symptoms of Shiga toxin-producing *E. coli* infection?

- Bloody or non-bloody diarrhea
- Abdominal cramps
- Little or no fever
- Nausea
- Vomiting

Symptoms may vary and often begin 3-4 days (range of 2-10 days) after exposure and last around 5-10 days.

How is Shiga toxin-producing *E. coli* spread?

E. coli is passed in stool, and people become infected by ingesting feces from an infected animal or person (fecal-oral route). An infected person can pass the bacteria in their stool for up to 3 weeks after their symptoms have stopped.

There are many ways to become infected with Shiga toxin-producing *E. coli*:

- Eating contaminated foods such as undercooked beef products, unwashed raw fruits, vegetables, or herbs, and drinking unpasteurized milk and juices.

- Swallowing untreated water, e.g., from lakes or streams.
- Having direct contact with the stool of infected people or animals.
- Not washing hands after contact with stool from a contaminated surface or item.

Who is at risk for getting Shiga toxin-producing *E. coli*?

Anyone can become ill, but young children, senior adults, pregnant women, and immune suppressed individuals (such as patients on cancer drugs and with organ transplants) are at high risk for illness. Elderly and very young children are more likely to have severe illness and HUS.

How do I know if I have Shiga toxin-producing *E. coli* infection?

A person having diarrhea lasting longer than 24 hours or having bloody stool should immediately consult a health care provider. The health care provider may collect a stool sample to test for Shiga toxin-producing *E. coli*.

How is Shiga toxin-producing *E. coli* infection treated?

Most people recover without medical treatment. Proper hydration and non-specific supportive therapy is important. The use of antibiotics or over-the-counter anti-diarrheal agents is not recommended; the use of these can lead to greater likelihood of developing HUS.

How is Shiga toxin-producing *E. coli* infection prevented?

In general, Shiga toxin-producing *E. coli* infection can be prevented by strictly adhering to the following guidelines:

- Thoroughly wash hands with soap and water after using the restroom.
- Clean food preparation work surfaces, equipment, and utensils with soap and water before, during, and after food preparation.
- Separate raw and cooked foods.
- Maintain safe food temperatures.
- Eat foods that are cooked properly and within expiration dates
- Consume only pasteurized dairy products and juices.
- Wash all produce before eating raw or cooking.
- Wash hands after contact with livestock, petting zoos, and pets.
- Persons with diarrhea and/or vomiting should not prepare food or provide health care for others and should limit direct contact with others as much as possible.
- Avoid swallowing water when swimming or playing in lakes, ponds, streams, etc.

All information presented is intended for public use. For more information, please refer to: <http://www.cdc.gov/ecoli/>

Food and Drug Administration, Food Facts for Consumers:

<http://www.fda.gov/Food/ResourcesForYou/Consumers/ucm077286.htm>

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