



## Are there long term consequences associated with *E. coli*?

Individuals who only have diarrhea usually recover completely. About a third of individuals with HUS retain abnormal kidney function many years later and require dialysis. Other lifelong complications include: high blood pressure, seizures, blindness, and paralysis.

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## How can *E. coli* be prevented?

- \* Always refrigerate meat products. DO NOT leave them at room temperature.
- \* Cook ground meat completely to an internal temperature of 155°F.
- \* Clean thoroughly with bleach any surfaces meat has touched.
- \* Avoid drinking unpasteurized products, such as milk and juices.
- \* Wash hands with soap and water before and after preparing food.
- \* Teach children how to wash hands properly.



Source: Centers for Disease Control and Prevention (CDC) and Oklahoma State Department of Health (OSDH)

## Local Resources

For information on *E. coli* visit our website at:

<http://www.tulsa-health.org/community-health/epidemiology/>

or write:

Tulsa Health Department  
Planning & Epidemiology  
5051 S. 129th E. Ave.  
Tulsa, OK 74134

Other Contact Information:

Phone: 918/595-4505

Fax: 918/595-4588

E-mail: [epidemiology@tulsa-health.org](mailto:epidemiology@tulsa-health.org)

### For more information on *E. coli*, visit:

- Oklahoma State Department of Health  
(405) 271-4060  
[www.health.state.ok.us/program/cdd/infec.html](http://www.health.state.ok.us/program/cdd/infec.html)
- Centers for Disease Control and Prevention  
(888) 443-7232  
[www.cdc.gov](http://www.cdc.gov)
- US Food and Drug Administration  
[www.csfan.fda.gov-mow/chap1.html](http://www.csfan.fda.gov-mow/chap1.html)



Prepared by Planning & Epidemiology



# *E. coli*

## *Escherichia coli*

*Escherichia coli* O157:H7 (*E. coli*) is an emerging cause of food borne illness. Since the discovery of the illness in 1982, infections have been reported from more than 30 countries on six continents. In 1999 it was estimated that 73,000 cases of infection and 61 deaths occur in the United States each year. There is an estimated 2,100 individuals hospitalized with *E. coli* in the United States each year.

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# *E. Coli*

## What is *Escherichia coli*?

*E. coli* are a large group of bacteria. *E. coli* is normally found in the digestive tracts of humans and animals. Most strains of *E. coli* are harmless, but others can cause illness. Some kinds cause diarrhea, while others cause urinary tract infections, respiratory illness, pneumonia, and other illnesses.

## What are Shiga toxin-producing *E. coli*?

Some kinds of *E. coli* make a toxin called Shiga toxin. The bacteria that make these toxins are called Shiga toxin-producing *E. coli* (STEC) or enterohemorrhagic *E. coli* (EHEC).

The most commonly identified STEC in the United States is *E. coli* 0157:H7.

## What are the complications of STEC infections?

About 5-10% of those who are diagnosed with STEC infection develop a potentially life-threatening complication known as hemolytic uremic syndrome (HUS). Signs of HUS include decreased frequency of urination, feeling very tired, and losing pink color in cheeks and inside the lower eyelids. Persons with HUS should be hospitalized because their kidneys may stop working.

## What are the symptoms of STEC infections?

Symptoms can range from mild to severe, and include: diarrhea (often bloody), severe stomach cramps, and vomiting.

If there is a fever it is usually not very high (less than 101° F). Most people get better within 5-7 days. Some infections are very mild, but others are severe or even life-threatening.

## How soon do symptoms appear after exposure?

The time between exposure and feeling sick is usually 3-4 days, but may be as short as 1 day or as long as 10 days. The symptoms often begin slowly with mild belly pain or non-bloody diarrhea that worsens over several days.

HUS, if it occurs, develops an average of 7 days after the first symptoms, when the diarrhea is improving.

## How is *E. coli* spread?

*E. coli* can be spread by eating or drinking items that are contaminated by the feces of infected people or animals including:

- \* Poorly cooked meat, especially beef,
- \* Unpasteurized milk or juices,
- \* Swimming in or drinking contaminated water, or
- \* Mouthing objects that are contaminated.



## How are STEC infections diagnosed?

STEC infections are usually diagnosed through lab testing of stool specimens.

## Who gets STEC infections?

People of any age can become infected. Very young children and the elderly are more likely to develop severe illness and HUS than others, but even healthy older children and young adults can become seriously ill.

## What is the treatment for *E. Coli*?

- \* There is no vaccine for *E. coli*.
- \* Most persons recover without treatment.
- \* There is no evidence that antibiotics improve the course of the disease and taking antibiotics may increase the risk of this. Antidiarrheal medications may also increase that risk.
- \* Individuals with *E. coli* should drink plenty of liquids to prevent dehydration.