

Escherichia coli (E. coli)

What is E. coli?

Escherichia coli (*E. coli*) are a group of bacteria. Most strains of *E. coli* are harmless, but certain types produce a toxin which can make you sick. These bacteria are called Shiga toxin-producing *E. coli* (STEC) and cause symptoms which range from mild to severe.

What are the symptoms of E. coli?

- Symptoms begin 1-10 days (usually 3-4 days) after ingesting the bacteria. Some infected people may not have any symptoms but still are able to spread the bacteria. Symptoms include:
 - Sudden onset of diarrhea (often becomes bloody as the illness progresses)
 - Severe stomach pain
 - Fever and vomiting (occasionally)
- Some people, especially young children, could develop a life-threatening condition called Hemolytic Uremic Syndrome (HUS). Persons with HUS will need to be hospitalized. Most will recover within a few weeks although some can suffer permanent kidney or organ damage or may die.



How do I get E. coli?

People must ingest (swallow or eat) the *E. coli* bacteria to become infected. STEC lives in the gut of ruminant animals like cattle, goats, sheep and deer.



- *E. coli* can be found in several food items including raw meats (especially ground beef), unpasteurized milk, unpasteurized juice, contaminated water and raw fruits and vegetables (such as sprouts).
- Raw meats and raw meat juices can spread the bacteria if they touch ready-to-eat foods (salads, breads, cheeses, etc.), food preparation surfaces and utensils (cutting boards, plates, knives, etc.) or hands.
- People who are infected with *E. coli* will have the bacteria in their feces (stools). If people do not properly wash their hands after using the restroom or changing diapers, and then handle food others will eat or objects people will put in their mouths (e.g., toys), they can spread the bacteria to other people.
 - *E. coli* is **NOT** spread from one person to another by coughing or sneezing, sharing drinks, hugging or kissing.



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What is the treatment for *E. coli*?

- Most symptoms will go away on their own in a few days.
- Antibiotics are generally not recommended to treat this infection as they have not been shown to shorten the duration of symptoms and can make the illness more severe in some people.
- If symptoms persist or are severe, contact your health care provider.

How do I prevent *E. coli*?

- Cook meats until well done and juices run clear. Ground beef must be cooked to at least 155°F.
- Keep all meats cold (below 41°F) and do not drink unpasteurized milk.
- Wash all fruits (including melons) and vegetables before preparing or eating them.
- Wash and sanitize food preparation surfaces and utensils after preparing raw meats.
- Always wash your hands after handling raw meat, after using the restroom, after changing diapers, and before preparing food.



Protect Others



Persons infected with *E. coli* could have the bacteria in their feces (stool) even if they are not having symptoms. If other people ingest this bacteria, they can become sick as well. If you think you have *E. coli*:

- Do not prepare food for others.
- If your job involves handling food, working with children or if you work in healthcare, **do not** go to work and see your health care provider.
- Children who might have *E. coli* **must not** go to child care settings (especially if they have diarrhea) and should see a health care provider.



Why does the health department investigate *E. coli*?



- It is the responsibility of the local health department to investigate *E. coli* in the community. The health department keeps track of how many people are getting the disease and works to limit the number of people exposed.
- Most people infected with *E. coli* are single, sporadic cases. However, sometimes there are outbreaks when two or more people become ill from the same source. The health department monitors *E. coli* in an attempt to identify and stop outbreaks of the disease.
- The health department works with people whose jobs involve handling food, working in child care, or working in health care to determine when it is safe for them to resume their normal job duties. The health department also works to determine when it is safe for children who have *E. coli* to return to child care.