

# E. Coli Infection

## What is E. coli infection?

An E. coli infection is food poisoning caused by some types of E. coli bacteria. The effects of E. coli Infection can range from mild symptoms to severe, life-threatening illness.

## What is the cause?

There are many harmless types of E. coli bacteria. However, some types, such as one called O157:H7, make a strong poison that can make you very sick. The bacteria live in the guts of cattle. The bacteria can get into meat when the cattle are killed and the meat is processed. The bacteria may also get into a cow's milk. The bacteria can live in other animals as well. The bacteria can also be spread from manure, which may be used as a fertilizer on or near crops.

Eating meat that has not been cooked long enough to kill E. coli can cause infection. This is especially true for ground beef. You usually cannot tell by smelling or looking at the meat if it is contaminated.

Other possible sources of infection are:

- Alfalfa sprouts
- Leafy vegetables, such as lettuce and spinach
- Salami
- Raw, unpasteurized milk, unpasteurized juice, and soft cheeses made from raw milk
- Contaminated water

People who are infected have the bacteria in their bowel movements. The bacteria can spread from one person to another if an infected person does not carefully wash their hands after using the bathroom. Adults who care for toddlers in diapers or for children who are not toilet trained are at high risk of getting the infection. These children's playmates may also get the infection.

You might get infected by swallowing unchlorinated or underchlorinated water in swimming pools. You can also get infected by swimming in water that has sewage in it.

## What are the symptoms?

Symptoms may include:

- Nausea
- Severe cramps in your belly
- Watery or bloody diarrhea
- Tiredness
- Vomiting
- Mild fever (99 to 100.5° F, or 37 to 38° C)

Symptoms usually begin 2 to 5 days after eating contaminated food, but anywhere from 1 to 7 days is normal. The symptoms may last for several days.

## **How is it diagnosed?**

Your healthcare provider will ask about your symptoms and medical history and examine you. A sample of your bowel movement will be tested in the lab.

## **How is it treated?**

Usually you can get better without medical treatment. Antibiotics are usually not prescribed.

Ask your healthcare provider if medicines to stop the diarrhea are a good idea in your case.

You need to replace the fluids and body chemicals you lose when you have diarrhea or vomiting. Your healthcare provider may advise you to drink plenty of clear fluids or to drink an oral rehydration solution.

## **How long will the effects last?**

Most people get better in 5 to 10 days without medical treatment.

Rarely, a serious complication called hemolytic uremic syndrome can happen. It can cause kidney failure, especially in children. This life-threatening condition is usually treated in an intensive care unit of a hospital, sometimes with blood transfusions and temporary kidney dialysis.

## **How can I take care of myself?**

If you have been diagnosed with E. coli infection, follow your healthcare provider's instructions. Here are some things you can do to take care of yourself at home while you recover:

- If you have cramps or stomach pain, it may help to put a hot water bottle or heating pad on your stomach. Cover the hot water bottle with a towel or set an electric heating pad on low so you don't burn your skin.
- Ask your healthcare provider if you can take aspirin, ibuprofen, or other NSAID pain relievers. It's OK to take acetaminophen (Tylenol).
  - Check with your provider before you give any medicine that contains aspirin or salicylates to a child or teen. This includes medicines like baby aspirin, some cold medicines, and Pepto-Bismol. Children and teens who take aspirin are at risk for a serious illness called Reye's syndrome.
  - Nonsteroidal anti-inflammatory medicines (NSAIDs), such as aspirin, ibuprofen, and naproxen, may cause stomach bleeding and other problems. These risks increase with age. Read the label and take as directed. Unless recommended by your healthcare provider, do not take for more than 10 days for any reason.
- It's OK to keep eating as long as it doesn't seem to make the diarrhea or stomach cramps worse. Foods that are easiest to digest are bananas, cooked

cereal, plain rice or noodles, gelatin, eggs, toast or bread, crackers, cooked potatoes or carrots, and applesauce. Don't add butter or margarine to these foods. Avoid milk products and caffeine for a few days.

- If you would like to let your bowel rest for a few hours, don't eat anything and drink only clear liquids. Clear liquids include water, weak tea, broth, apple or grape juice mixed with water, and sports drinks or other oral rehydration drinks. You may also drink light-colored soft drinks without caffeine (like 7 UP) after stirring until the bubbles are gone. Drink enough clear fluids to keep your urine light yellow in color. If you don't drink enough, you may get dehydrated. Getting dehydrated can be very dangerous, especially for children, older adults, and some people who have other medical problems. Suck on ice chips or Popsicles if you feel too nauseated to drink fluids.
- You can go back to your normal diet after 2 or 3 days, but for several days avoid fresh fruit (other than bananas), alcohol, and greasy or fatty foods like cheeseburgers, pizza, or bacon. Also avoid highly seasoned or spicy foods and most raw vegetables. It's OK to eat cooked carrots, potatoes, and squash. If eating seems to make the diarrhea worse, let your bowel rest for a few hours by drinking just clear liquids.

You can buy nonprescription medicine to treat diarrhea at the drugstore. If you use it, make sure you use only the dose recommended on the package. Don't use the medicine for more than 2 days without checking with your healthcare provider. If you have chronic health problems, always check with your provider before you use any medicine for diarrhea.

Ask your provider:

- How and when you will hear your test results
- How long it will take to recover
- What activities you should avoid and when you can return to your normal activities
- How to take care of yourself at home
- What symptoms or problems you should watch for and what to do if you have them

Make sure you know when you should come back for a checkup.

## **How can I help prevent E. coli infection?**

- Wash your hands well before you start any food preparation.
- Cook all meat thoroughly. Ground beef can turn brown during cooking before bacteria in the meat are killed. Use a meat thermometer to make sure meat is cooked enough to kill bacteria. Ground beef should be cooked until a thermometer inserted into several parts of the patty reads at least 160°F (71°C).
- Do not eat ground beef patties that are still pink in the middle. If you are served an undercooked hamburger in a restaurant, send it back for further cooking. Ask for a new bun and a clean plate, too.

- Keep raw meat separate from ready-to-eat foods. Wash hands, cutting boards, counters, and utensils with hot soapy water after contact with raw meat. Never put cooked hamburgers or ground beef on an unwashed plate that held raw patties.
- Drink only pasteurized milk, juice, or cider.
- Wash fruits and vegetables well, especially if you are eating them raw. Children less than 5 years old, people with weakened immune systems, and older adults should avoid eating alfalfa sprouts. There is no way to remove the bacteria from the sprouts.
- Drink tap water that has been treated with chlorine or another disinfectant.
- Do not swallow lake or pool water while swimming.
- Teach children to wash their hands carefully with soap and water after using the toilet and before having a snack or meal. Wash your hands after changing diapers.

Developed by RelayHealth.

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