



Some facts about E. coli Bacteria

What is E. coli?

Escherichia coli (E. coli) is a bacteria normally found in the bowels of humans and animals such as cows, pigs and sheep. Some types of E. coli are harmless and others can make people sick causing diarrhea, urinary tract infections and even kidney failure.

How can E. coli hurt my kidneys?

E. coli bacteria produce a toxin which can cause damage to red blood cells, the kidneys and other organs and can sometimes lead to a serious complication called Hemolytic-Uremic Syndrome (HUS), more commonly known as *Hamburger Disease*. HUS can lead to kidney failure and is the most common cause of kidney failure in children in North America.

What are the signs and symptoms of E. coli infection?

- Diarrhea (often bloody and may last only a very short time).
- Vomiting
- Severe stomach cramps or abdominal tenderness.
- Mild fever (less than 38° C or 101° F) may or may not be present.
- Symptoms may last 5 to 7 days and begin to appear 3 to 4 days after exposure to E. coli.
- Symptoms may be mild, or can be severe and life-threatening.
- Children should be watched very carefully for signs of Hemolytic-Uremic Syndrome (HUS) following an E. coli infection. Symptoms of HUS include extreme irritability, fatigue, pale skin and a decrease in urine output.

Hemolytic-Uremic Syndrome (HUS)/ Hamburger Disease

- HUS is most common in children ages 5 to 10 years.
- 80% of children who develop HUS will need multiple blood transfusions.
- 50% of people with HUS will need dialysis during the acute stages of the illness.
- 3%-5% of people with HUS will die.
- 5%-10% of people will have some degree of permanent kidney or neurological damage.

How do you get E. coli?

1. Contaminated Water

Untreated or surface water (creek, stream, or irrigation) may be contaminated with E. coli. Drinking or using this water to prepare food may cause E. coli infection.

2. Contaminated Food

The most common foods that contain harmful E. coli are raw, undercooked, or ground beef, pork, lamb and poultry. Unwashed fruits and vegetables such as lettuce or fallen apples can become contaminated with E. coli bacteria through soil infected with manure or contaminated irrigation water.

3. Hand-to-mouth spread of E. coli

Person-to-person spread in families, daycares, institutions, or where there is an outbreak of diarrhea due to E. coli can pose a serious risk. Proper hygiene and food preparation can stop the spread of an E. coli outbreak.

IMPROPER FOOD PREPARATION

Cross-contamination and spread of E. coli can occur when raw food contaminates cooked or ready to eat food. For example, using the same plate for raw meat, then cooked meat; or, wiping up drips of blood from raw meat, then wiping the table, counter surface or a child's hands/face with the same cloth.

POOR HYGIENE

A person may not wash their hands thoroughly after using the toilet (and coming into contact with E. coli contaminated feces). They may then touch other people, surfaces, toys, food, etc. If someone contacts the transferred bacteria, then touches their mouth, they may become infected.

E. coli Prevention and Safety Tips

You can help protect yourself and your family against *E. coli* infection by following these tips:

1. If you are not sure of a water source, ALWAYS boil the water for 5 minutes before using. This will destroy bacteria, viruses and parasites.
2. Avoid unpasteurized milk, juices and ciders.
3. ALWAYS wash all fruits and vegetables INCLUDING those you cut or peel (i.e. oranges or cucumbers).
4. When buying meat, make sure the package is not dripping juices and make sure that children don't touch the meat packaging.
5. Refrigerate meat as soon as possible after purchase. Freeze all meat following purchase unless you are going to use it within 48 hours.
6. SEPARATE, don't cross-contaminate. Store meat/poultry/seafood at the bottom of the refrigerator to avoid meat juice spilling onto other foods.
7. ALWAYS thaw meat in the microwave or overnight in the fridge. NEVER thaw meat on the counter, in the sink, or at room temperature.
8. Use a separate cutting board for raw meat/poultry/seafood. Do not use the same plate for your raw and cooked meat.
9. Cook ground meats, chicken, and pork thoroughly. Using a digital instant read thermometer, cook to an internal temperature of 71°C (160°F) and until its juices run clear.
10. Immediately following meat preparation, wash your hands thoroughly to avoid spreading the bacteria from the meat to other foods.
11. ALWAYS use hot and soapy water or a diluted bleach solution (1 tsp/5ml bleach: 3 cups/750mL water) to wash utensils and cutting surfaces used in handling raw meat.
12. Change sponges, dishcloths, aprons and towels often.
13. Keep hot food hot (at or above 60°C or 140°F) and cold food cold (at or below 4°C or 40°F).
14. ALWAYS wash hands thoroughly with soap and warm water after using the toilet, changing diapers, before preparing food and after visits to farms or petting zoos.