



Official reprint from UpToDate®

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What is E. coli? — E. coli are bacteria that live in the digestive systems of animals and people ([figure 1](#)). Everyone has them, and they do not usually cause problems. But there are different types of E. coli. Some types cause disease. Eating or drinking something with one of these types in it can cause diarrhea and other symptoms.

When E. coli causes disease, it usually happens in the digestive system. But E. coli can sometimes cause illness if it gets into areas of the body where it does not normally live. For example, E. coli can cause a urinary tract infection if it gets into the urinary tract ([figure 2](#)).

What are the symptoms of E. coli infection? — The symptoms of E. coli infection of the digestive system include:

- Diarrhea – This can be watery or bloody, and mild or severe.
- Belly pain
- Vomiting – This is more common in babies infected with one specific type of E. coli.

Should I see a doctor or nurse? — See your doctor or nurse if:

- You have more than 6 runny bowel movements in 24 hours.
- You have diarrhea for longer than 48 hours.
- You have bloody diarrhea.
- You have a fever higher than 100.4°F (38°C).
- You have severe belly pain.
- You have diarrhea or fever and are age 70 or older.

You should also see a doctor or nurse if your body has lost too much water from diarrhea. This is called "dehydration." Signs of dehydration include:

- Having lots of diarrhea that is very watery
- Feeling very tired
- Thirst
- Dry mouth or tongue
- Muscle cramps

- Dizziness, especially when you stand up
- Confusion
- Urine that is very yellow, or not needing to urinate for more than 5 hours

Will I need tests? — Most people do not need tests for E. coli. But the doctor or nurse might want to do:

- Tests on a sample of your bowel movements
- Blood tests

The types of E. coli that cause diarrhea can sometimes also cause problems with the kidneys or blood. These problems can be serious. If you get sick with E. coli, doctors might do tests to check for these problems.

How is E. coli infection treated? — Many people do not need any specific treatment. Diarrhea from E. coli is not usually treated with antibiotic medicines. With some types of E. coli that cause diarrhea, antibiotics might actually make the illness worse. But if E. coli causes symptoms in other parts of the body, you might need antibiotics.

People who get dehydrated might need fluids through a thin tube called an "IV." The tube goes into a vein. This treatment is usually given in the hospital.

Is there anything I can do on my own to feel better? — Yes. If you have diarrhea, you can:

- Drink a lot of liquids that have water, salt, and sugar. Good choices are soup broth and water mixed with juice. If you are drinking enough fluids, your urine will be light yellow or almost clear.
- Eat a little food if you feel hungry. Good choices are potatoes, noodles, rice, oatmeal, crackers, bananas, soup, and boiled vegetables. Salty foods help the most.

Ask your doctor or nurse before you take any over-the-counter medicines for diarrhea. If you have E. coli infection, some of these medicines can be harmful.

Can E. coli infection be prevented? — To reduce your chances of getting and spreading E. coli, be sure to:

- Wash your hands after changing diapers, cooking, eating, going to the bathroom, taking out the trash, or touching animals
- Stay home from work or school until you feel better, if you get diarrhea
- Pay attention to food safety. Here are some tips:
 - Do not drink unpasteurized milk or foods made with it.
 - Wash fruits and vegetables well before eating them.
 - Keep the refrigerator colder than 40°F and the freezer below 0°F.
 - Cook meat and seafood until well done.
 - Cook eggs until the yolk is firm.
 - Wash hands, knives, and cutting boards after they touch raw food.

For more tips on food safety, see the table ([table 1](#)).

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[Patient education: Diarrhea in children \(The Basics\)](#)

[Patient education: Dehydration in children \(The Basics\)](#)

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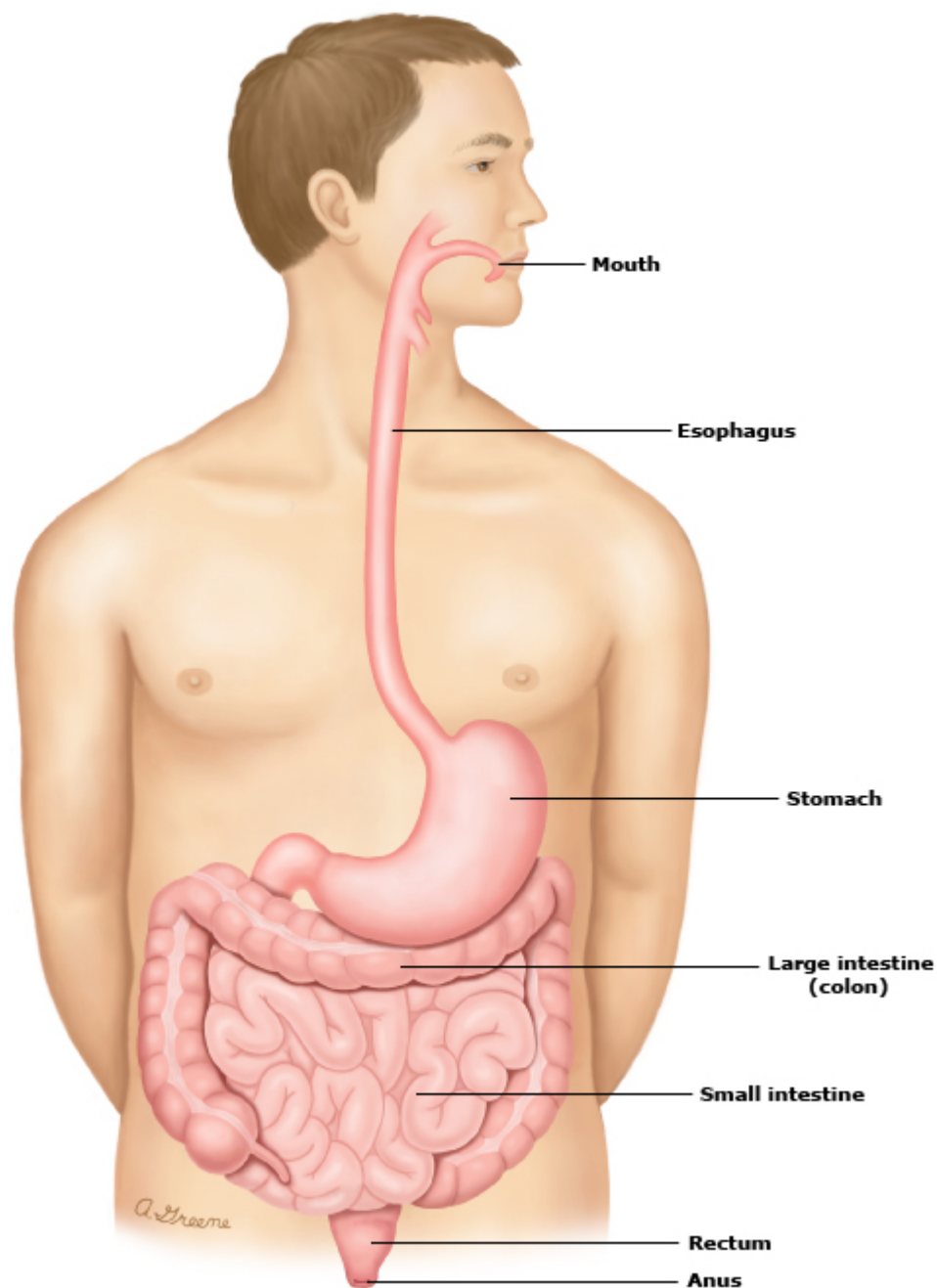
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Topic 86006 Version 6.0

GRAPHICS

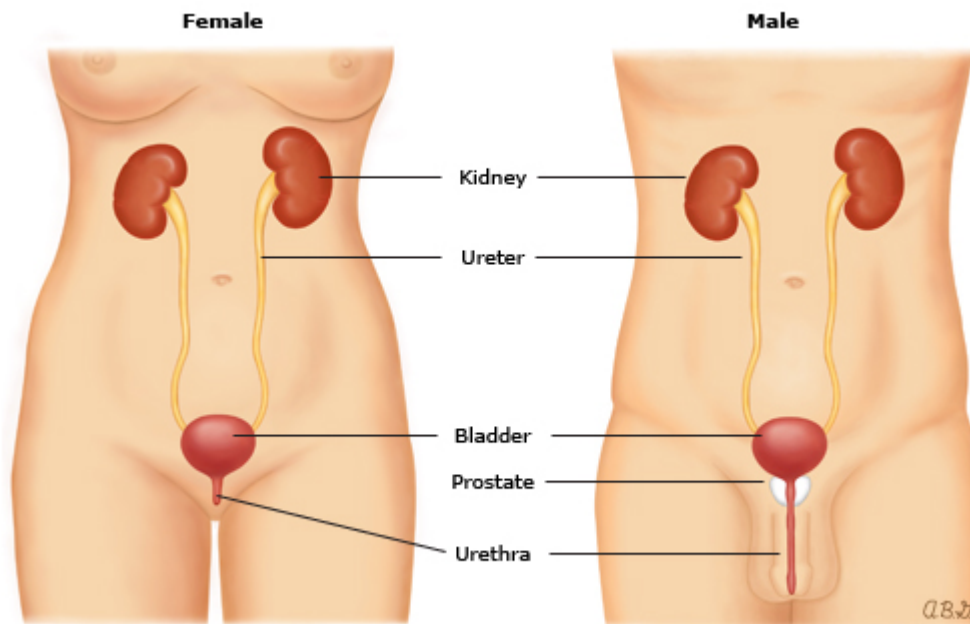
Digestive system



This drawing shows the organs in the body that process food. Together these organs are called "the digestive system," or "digestive tract." As food travels through this system, the body absorbs nutrients and water.

Graphic 66110 Version 4.0

Anatomy of the urinary tract



Urine is made by the kidneys. It passes from the kidneys into the bladder through two tubes called the ureters. Then it leaves the bladder through another tube called the urethra.

Graphic 79864 Version 7.0

Tips for safe food handling

Purchase
Do not buy already-cooked food that is stored next to raw food, even if it is stored on ice.
Do not buy food in cans that are dented, cracked, or have a bulging lid.
Storage
Make sure meat and poultry products are refrigerated when bought.
Use plastic bags to keep juices from meat and fish from touching other foods.
Store perishable items (that can go bad quickly) in the refrigerator within an hour of buying.
Keep refrigerator temperature between 32 and 40°F (0 and 4°C) and freezer temperature at or below 0°F (-18°C).
Freeze meat and poultry that will not be cooked within 48 hours.
Freeze tuna, bluefish, and mahi-mahi that will not be cooked within 24 hours. Other fish can be stored in the refrigerator for 48 hours.
Do not store eggs on the refrigerator door (since that is the warmest part of the refrigerator).
Put leftovers in the refrigerator within 2 hours of cooking them.
Divide leftovers into parts and store in small containers.
Reheat leftovers to 165°F (74°C) before eating.
Preparation
Wash hands with soap and water before cooking and after handling raw meat, poultry, fish, or raw eggs.
Thaw frozen meats and fish in the refrigerator or microwave, not by leaving them out.
Marinate foods in the refrigerator, not at room temperature.
Avoid contact of cooked foods with forks, spoons, knives, plates, or areas that might not be clean.
Wash forks, spoons, knives, plates, and cutting areas with soap and water after they have touched raw meat, poultry, fish, or eggs.
Avoid letting the juices from uncooked meat, poultry, or fish touch cooked foods or foods that will be eaten raw.
Carefully wash all fresh fruits and vegetables.
Avoid recipes that include raw eggs.
Cooking
Use a meat thermometer.
<ul style="list-style-type: none"> ▪ Cook beef, veal, and lamb (steaks, roasts, chops) to 145°F (63°C) and rest for 3 minutes. ▪ Cook ground beef, pork, veal, and lamb to 160°F (71°C). ▪ Cook poultry (chicken, turkey) to 165°F (74°C). ▪ Cook fresh pork (roasts, chops, ham that is not precooked) to 145°F (63°C) and rest for 3 minutes. ▪ Cook precooked ham to 140°F (60°C). ▪ Cook fish until the flesh is firm and separates easily with a fork. ▪ Cook shellfish until the flesh is firm.
Cook eggs until the yolk and white are firm.
Boil juices from raw meat or fish before using on cooked food.
Serving
Serve cooked foods on clean plates with clean forks, spoons, and knives.
Keep hot foods at 140°F (60°C) and cold foods below 40°F (4°C).
Never leave foods at room temperature longer than 2 hours, or 1 hour if the room is hotter than 90°F (32°C).
Use coolers and ice packs to take perishable foods (that might go bad) away from home.

United States Department of Agriculture. Food Safety. Available at <http://www.foodsafety.gov> (Accessed on January 19, 2016).

Graphic 60529 Version 6.0