

Diarrhea

Definition & Facts

What is diarrhea?

Diarrhea is loose, watery [stools](#) three or more times a day. Diarrhea may be [acute](#), persistent, or [chronic](#):

- **Acute diarrhea** is a common problem that typically lasts 1 or 2 days and goes away on its own.
- **Persistent diarrhea** lasts longer than 2 weeks and less than 4 weeks.
- **Chronic diarrhea** lasts at least 4 weeks. Chronic diarrhea symptoms may be continual or may come and go.

How common is diarrhea?

Diarrhea is a common problem. Acute diarrhea is more common than persistent or chronic diarrhea. Researchers estimate that about 179 million cases of acute diarrhea occur in the United States each year.¹

What are the complications of diarrhea?

Dehydration

Diarrhea may cause [dehydration](#), which means your body lacks enough fluid and [electrolytes](#) to work properly. Your body loses more fluid and electrolytes in loose stools than solid stools. See a list of the [symptoms of dehydration](#).

Malabsorption

Diarrhea may cause [malabsorption](#). If people do not absorb enough nutrients from the food they eat, they may become [malnourished](#). Certain conditions that cause chronic diarrhea—such as infections, food allergies and intolerances, and certain digestive tract problems—may also cause malabsorption. See a list of the [symptoms of malabsorption](#).

References

[1] DuPont HL. Acute infectious diarrhea in immunocompetent adults. *The New England Journal of Medicine*. 2014;370(16):1532–1540.

Symptoms & Causes

What are the symptoms of diarrhea?

The main symptom of diarrhea is passing loose, watery [stools](#) three or more times a day.

People with diarrhea may also have one or more of the following symptoms:

- an urgent need to use the bathroom
- cramping
- loss of control of [bowel movements](#)
- [nausea](#)
- pain in the [abdomen](#)

People with diarrhea caused by some [infections](#) may also have one or more of the following symptoms:

- bloody stools
- fever and chills
- light-headedness and dizziness
- vomiting

Diarrhea may cause [dehydration](#) and [malabsorption](#).

What are the symptoms of dehydration and malabsorption?

Dehydration and malabsorption can be serious complications of diarrhea. Their symptoms in adults, infants, toddlers, and young children are as follows.

Dehydration

Symptoms of dehydration in adults may include:

- thirst
- urinating less than usual
- feeling tired
- dark-colored [urine](#)
- dry mouth
- decreased skin turgor, meaning that when your skin is pinched and released, the skin does not flatten back to normal right away

- sunken eyes or cheeks
- light-headedness or fainting

Signs of dehydration in infants, toddlers, and young children may include

- thirst
- urinating less than usual, or no wet diapers for 3 hours or more
- lack of energy
- dry mouth
- no tears when crying
- decreased skin turgor
- sunken eyes, cheeks, or soft spot in the skull

Malabsorption

Symptoms of malabsorption in adults may include

- [bloating](#)
- changes in appetite
- [gas](#)
- loose, greasy, foul-smelling bowel movements
- weight loss

Symptoms of malabsorption in infants, toddlers, and young children may include

- bloating
- changes in appetite
- gas
- loose, greasy, foul-smelling bowel movements
- weight loss or poor weight gain

Seek care right away

Diarrhea can become dangerous if it leads to severe dehydration. Diarrhea may also signal a more serious problem.

Adults

Adults with any of the following symptoms should see a doctor right away:

- diarrhea lasting more than 2 days

- fever of 102 degrees or higher
- frequent vomiting
- six or more loose stools in 24 hours
- severe pain in the abdomen or [rectum](#)
- stools that are black and tarry or contain blood or [pus](#)
- symptoms of dehydration

Older adults and adults with weakened immune systems or other health conditions who have diarrhea should also see a doctor right away.

What causes diarrhea?

Acute and persistent diarrhea may have causes that are different from those of chronic diarrhea. In many cases, doctors do not find the cause of diarrhea. Most diarrhea goes away on its own within 4 days, and finding the cause is not necessary.

Acute and persistent diarrhea

The most common causes of acute and persistent diarrhea are infections, travelers' diarrhea, and side effects of medicines.

Infections

Three types of infections that cause diarrhea include

- **Viral infections.** Many [viruses](#) cause diarrhea, including [norovirus](#) and [rotavirus](#) . [Viral gastroenteritis](#) is a common cause of acute diarrhea.
- **Bacterial infections.** Several types of [bacteria](#) can enter your body through contaminated food or water and cause diarrhea. Common bacteria that cause diarrhea include [Campylobacter](#) , [Escherichia coli](#) (*E. coli*), [Salmonella](#) , and [Shigella](#) .
- **Parasitic infections.** [Parasites](#) can enter your body through food or water and settle in your digestive tract. Parasites that cause diarrhea include [Cryptosporidium enteritis](#) , [Entamoeba histolytica](#) , and [Giardia lamblia](#) .

Infections in the digestive tract that spread through foods or drinks are called [foodborne illnesses](#).

Infections lasting more than 2 weeks and less than 4 weeks can cause persistent diarrhea.

Travelers' diarrhea

[Travelers' diarrhea](#) is caused by eating food or drinking water contaminated with bacteria, viruses, or parasites. Travelers' diarrhea is most often acute. However, some parasites cause

diarrhea that lasts longer. Travelers' diarrhea can be a problem for people traveling to developing countries.

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Side effects of medicines

Many medicines may cause diarrhea. Medicines that may cause diarrhea include [antibiotics](#) , [antacids](#) containing magnesium, and medicines used to treat cancer.

Chronic diarrhea

Some infections, food allergies and intolerances, digestive tract problems, abdominal surgery, and long-term use of medicines can cause chronic diarrhea.

Infections

Some infections from bacteria and parasites that cause diarrhea do not go away quickly without treatment. Also, after an infection, people may have problems digesting [carbohydrates](#) such as [lactose](#) or [proteins](#) in foods such as cow's milk, milk products, or [soy](#) . Problems digesting carbohydrates or proteins can prolong diarrhea.

Food allergies and intolerances

Allergies to foods such as cow's milk, soy, cereal grains, eggs, and seafood may cause chronic diarrhea.

[Lactose intolerance](#) is a common condition that may cause diarrhea after eating foods or drinking liquids that contain milk or milk products.

Fructose intolerance is a condition that may cause diarrhea after eating foods or drinking liquids that contain fructose, a sugar found in fruits, fruit juices, and honey. Fructose is added to many foods and soft drinks as a sweetener called high-fructose corn syrup.

[Sugar alcohols](#) such as sorbitol, mannitol, and xylitol may cause diarrhea in some people. Sugar-free candies and gum often include these sugar alcohols.

Digestive tract problems

Digestive tract problems that may cause chronic diarrhea include

- [celiac disease](#)
- [Crohn's disease](#)
- [irritable bowel syndrome](#) and other [functional gastrointestinal \(GI\) disorders](#)
- [small intestinal bacterial overgrowth](#)

- [ulcerative colitis](#)

Abdominal surgery

You may develop chronic diarrhea after abdominal surgery. Abdominal surgery is an operation on the [appendix](#), [gallbladder](#), [large intestine](#), [liver](#), [pancreas](#), [small intestine](#), [spleen](#), or [stomach](#).

Long-term use of medicines

Medicines that must be taken for a long time may cause chronic diarrhea. Some medicines, such as antibiotics, can change the normal [gut flora](#) and increase your chances of infection with [Clostridium difficile](#), a bacterium that can cause chronic diarrhea.

Diagnosis

How do doctors find the cause of diarrhea?

Doctors do not typically need to find a cause of acute diarrhea. If your diarrhea lasts longer than 4 days or you have symptoms such as fever or bloody [stools](#), your doctor may need to find the cause. Your doctor may use information from your medical and family history, a physical exam, or tests to find the cause of your diarrhea.

What tests do doctors use to find the cause of diarrhea?

Your doctor may use the following tests to help find the cause of your diarrhea.

Stool test

Stool tests can show the presence of blood, bacteria, or parasites; or signs of diseases and disorders. A health care professional will give you a container for catching and storing the stool. You will receive instructions on where to send or take the container for analysis.

Blood tests

A health care professional may take a blood sample to test for certain diseases or disorders that can cause diarrhea.

Hydrogen breath test

This test is used to diagnose lactose intolerance by measuring the amount of hydrogen in your breath. Normally, little hydrogen is detectable in your breath. With lactose intolerance, undigested lactose produces high levels of hydrogen in your breath. For this test, you will drink a

beverage that contains a known amount of lactose. You will then breathe into a balloon-type container that measures your breath hydrogen level. If the hydrogen level is high, your doctor will diagnose lactose intolerance.

Fasting tests

To find out if a food intolerance or allergy is causing your diarrhea, your doctor may ask you to avoid foods with lactose, carbohydrates, wheat, or other ingredients to see whether your diarrhea responds to a change in diet.

Endoscopy

Your doctor may use [endoscopy](#) to look inside your body to help find the cause of your diarrhea. Endoscopic procedures include

- [colonoscopy](#)
- [flexible sigmoidoscopy](#)
- [upper gastrointestinal \(GI\) endoscopy](#)

Treatment

How can I treat my acute diarrhea?

In most cases, you can treat your acute diarrhea with over-the-counter medicines such as [loperamide](#) (Imodium) and [bismuth subsalicylate](#) (Pepto-Bismol, Kaopectate). Doctors generally do not recommend using over-the-counter medicines for people who have bloody [stools](#) or fever—signs of infection with [bacteria](#) or [parasites](#). If your diarrhea lasts more than 2 days, see a doctor right away.

In most cases, you can treat acute diarrhea with over-the-counter medicines.

When you have acute diarrhea, you may lose your appetite for a short time. When your appetite returns, you can go back to eating your normal diet. Learn more about [eating when you have diarrhea](#).

How do doctors treat persistent and chronic diarrhea?

How doctors treat persistent and chronic diarrhea depends on the cause. Doctors may prescribe antibiotics and medicines that target parasites to treat bacterial or parasitic infections. Doctors may also prescribe medicines to treat some of the conditions that cause chronic diarrhea, such as [Crohn's disease](#), [irritable bowel syndrome](#), or [ulcerative colitis](#). How doctors treat [chronic diarrhea in children](#) also depends on the cause.

Doctors may recommend [probiotics](#) . Probiotics are live microorganisms, most often bacteria, that are similar to microorganisms you normally have in your [digestive tract](#). Researchers are still studying the use of probiotics to treat diarrhea.

For safety reasons, talk with your doctor before using probiotics or any other [complementary or alternative medicines](#) or practices. If your doctor recommends probiotics, talk with him or her about how much probiotics you should take and for how long.

How can I prevent diarrhea?

You can prevent certain types of diarrhea, such as those caused by infections—including [rotavirus](#) and [traveler's diarrhea](#)—and foodborne illnesses.

Infections

You can reduce your chances of getting or spreading infections that can cause diarrhea by washing your hands thoroughly with soap and warm water for 15 to 30 seconds

- after using the bathroom
- after changing diapers
- before and after handling or preparing food

Rotavirus, which causes [viral gastroenteritis](#), was the most common cause of diarrhea in infants before [rotavirus vaccines](#) became available. The vaccines have reduced the number of cases of rotavirus and hospitalizations due to rotavirus among children in the United States.¹

Two oral vaccines are approved to protect children from rotavirus infections:

- rotavirus vaccine, live, oral, pentavalent (RotaTeq). Doctors give infants this vaccine in three doses: at 2 months of age, 4 months of age, and 6 months of age.
- rotavirus vaccine, live, oral (Rotarix). Doctors give infants this vaccine in two doses: at 2 months of age and at 4 months of age.

For the rotavirus vaccine to be effective, infants should receive all doses by 8 months of age. Infants 15 weeks of age or older who have never received the rotavirus vaccine should not start the series.

Parents or caregivers of infants should discuss rotavirus vaccination with a doctor.

Travelers' diarrhea

To reduce the chances of getting travelers' diarrhea when traveling to developing countries, avoid

- drinking tap water

- using tap water to make ice, prepare foods or drinks, or brush your teeth
- drinking juice or milk or eating milk products that have not been pasteurized—heated to kill harmful microbes—[viruses](#), bacteria, and parasites
- eating food from street vendors
- eating meat, fish, or shellfish that is raw, undercooked, or not served hot
- eating raw vegetables and most raw fruits

You can drink bottled water, soft drinks, and hot drinks such as coffee or tea made with boiling water.

If you are worried about travelers' diarrhea, talk with your doctor before traveling. Doctors may recommend taking antibiotics before and during a trip to help prevent travelers' diarrhea. Early treatment with antibiotics can shorten a case of travelers' diarrhea.

Foodborne illnesses

You can prevent [foodborne illnesses](#) that cause diarrhea by properly storing, cooking, cleaning, and handling foods.

How can I treat or prevent dehydration caused by diarrhea?

To treat or prevent dehydration, you need to replace lost fluids and [electrolytes](#)—called rehydration therapy—especially if you have acute diarrhea. Although drinking plenty of water is important in treating and preventing dehydration, you should also drink liquids that contain electrolytes, such as the following:

- broths
- caffeine-free soft drinks
- fruit juices
- sports drinks

If you are an older adult or have a weak [immune system](#), you should also drink oral rehydration solutions, such as Pedialyte, Naturalyte, Infalyte, or CeraLyte. Oral rehydration solutions are liquids that contain [glucose](#) and electrolytes. You can [make oral rehydration solutions at home](#) (PDF, 90KB) .

References

[1] Rotavirus in the U.S. Centers for Disease Control and Prevention website. www.cdc.gov . Updated May 12, 2014. Accessed November 21, 2016.

Eating, Diet, & Nutrition

What should I eat if I have diarrhea?

If you have diarrhea, you may lose your appetite for a short time. In most cases, when your appetite returns, you can go back to eating your normal diet. Parents and caretakers should give children with diarrhea their usual age-appropriate diet and give infants breast milk or formula.

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Your doctor may recommend changing your diet to treat some causes of [chronic](#) diarrhea, such as [lactose intolerance](#) or [celiac disease](#).

What should I avoid eating if I have diarrhea?

You should avoid foods that may make your diarrhea worse, such as

- alcoholic beverages
- drinks and foods containing caffeine
- dairy products such as milk, cheese, and ice cream
- fatty and greasy foods
- drinks and foods containing fructose
- fruits such as apples, peaches, and pears
- spicy foods
- diet drinks and sugarless gum and candies containing sweeteners such as sorbitol, mannitol, and xylitol

Research shows that following a restricted diet does not help treat diarrhea in most cases. Most experts do not recommend fasting or following a restricted diet when you have diarrhea.

November 2016

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