Diarrhea

National Institute of Diabetes and Digestive and Kidney Diseases

NATIONAL INSTITUTES OF HEALTH

Diarrhea

Diarrhea—loose, watery stools occurring more than three times in one day—is a common problem that usually lasts a day or two and goes away on its own without any special treatment. However, prolonged diarrhea can be a sign of other problems.

Diarrhea can cause dehydration, which means the body lacks enough fluid to function properly. Dehydration is particularly dangerous in children and the elderly, and it must be treated promptly to avoid serious health problems. Dehydration is discussed on page 3.

People of all ages can get diarrhea. The average adult has a bout of diarrhea about four times a year.

What Causes Diarrhea?

Diarrhea may be caused by a temporary problem, like an infection, or a chronic problem, like an intestinal disease. A few of the more common causes of diarrhea are

- Bacterial infections. Several types of bacteria, consumed through contaminated food or water, can cause diarrhea. Common culprits include *Campylobacter*, *Salmonella*, *Shigella*, and *Escherichia coli*.

- Viral infections. Many viruses cause diarrhea, including rotavirus, Norwalk virus, cytomegalovirus, herpes simplex virus, and viral hepatitis.

- Food intolerances. Some people are unable to digest a component of food, such as lactose, the sugar found in milk.

- Parasites. Parasites can enter the body through food or water and settle in the digestive system. Parasites that cause diarrhea include *Giardia lamblia*, *Entamoeba histolytica*, and *Cryptosporidium*.

- Reaction to medicines, such as antibiotics, blood pressure medications, and antacids containing magnesium.

- Intestinal diseases, like inflammatory bowel disease or celiac disease.

- Functional bowel disorders, such as irritable bowel syndrome, in which the intestines do not work normally.

Some people develop diarrhea after stomach surgery or removal of the gallbladder. The reason may be a change in how quickly food moves through the digestive system after stomach surgery or an increase in bile in the colon that can occur after gallbladder surgery.

In many cases, the cause of diarrhea cannot be found. As long as diarrhea goes away on its own, an extensive search for the cause is not usually necessary.

People who visit foreign countries are at risk for traveler's diarrhea, which is caused by eating food or drinking water contaminated with bacteria, viruses, or, sometimes, parasites. Traveler's diarrhea is a particular

problem for people visiting developing countries. Visitors to the United States, Canada, most European countries, Japan, Australia, and New Zealand do not face much risk for traveler's diarrhea.

Diarrhea in Children
Children can have acute (short-term) or chronic (long-term) forms of diarrhea. Causes include bacteria, viruses, parasites, medications, functional disorders, and food sensitivities. Infection with the rotavirus is the most common cause of acute childhood diarrhea. Rotavirus diarrhea usually resolves in 5 to 8 days. A vaccine to prevent rotavirus infection is now available for infants under 6 months of age.

Medications to treat diarrhea in adults can be dangerous to children and should be given only under a doctor's guidance.

Diarrhea can be dangerous in newborns and infants. In small children, severe diarrhea lasting just a day or two can lead to dehydration. Because a child can die from dehydration within a few days, the main treatment for diarrhea in children is rehydration. Rehydration is discussed on page 3.

Take your child to the doctor if any of the following symptoms appear:

- Stools containing blood or pus, or black stools.
- Temperature above 101.4 degrees Fahrenheit.
- No improvement after 24 hours.
- Signs of dehydration (see page 3).

What Are the Symptoms?

Diarrhea may be accompanied by cramping abdominal pain, bloating, nausea, or an urgent need to use the bathroom. Depending on the cause, a person may have a fever or bloody stools.

Diarrhea can be either acute or chronic. The acute form, which lasts less than 3 weeks, is usually related to a bacterial, viral, or parasitic infection. Chronic diarrhea lasts more than 3 weeks and is usually related to functional disorders like irritable bowel syndrome or diseases like celiac disease or inflammatory bowel disease.

What is Dehydration?

General signs of dehydration include

- Thirst.
- Less frequent urination.
- Dry skin.
- Fatigue.
- Light-headedness.

Signs of dehydration in children include

- Dry mouth and tongue.
- No tears when crying.
- No wet diapers for 3 hours or more.
- Sunken abdomen, eyes, or cheeks.
- High fever.
- Listlessness or irritability
- Skin that does not flatten when pinched and released.

If you suspect that you or your child is dehydrated, call the doctor immediately. Severe dehydration may require hospitalization.

When Should a Doctor Be Consulted?

Although usually not harmful, diarrhea can become dangerous or signal a more serious problem. You should see the doctor if

- You have diarrhea for more than 3 days.
- You have severe pain in the abdomen or rectum.
- You have a fever of 102 degrees Fahrenheit or higher.
- You see blood in your stool or have black, tarry stools.
- You have signs of dehydration.

If your child has diarrhea, do not hesitate to call the doctor for advice. Diarrhea can be dangerous in children if too much fluid is lost and not replaced quickly.

What Tests Might the Doctor Do?

Diagnostic tests to find the cause of diarrhea include the following:

- Medical history and physical examination. The doctor will need to know about your eating habits and medication use and will examine you for signs of illness.
- Stool culture. Lab technicians analyze a sample of stool to check for bacteria, parasites, or other signs of disease or infection.
- Blood tests. Blood tests can be helpful in ruling out certain diseases.
- Fasting tests. To find out if a food intolerance or allergy is causing the diarrhea, the doctor may ask you to avoid lactose (found in milk products), carbohydrates, wheat, or other foods to see whether the diarrhea responds to a change in diet.

- Sigmoidoscopy. For this test, the doctor uses a special instrument to look at the inside of the rectum and lower part of the colon.
- Colonoscopy. This test is similar to sigmoidoscopy, but the doctor looks at the entire colon.

What Is the Treatment?

In most cases, replacing lost fluid to prevent dehydration is the only treatment necessary. (See "Preventing Dehydration" below.) Medicines that stop diarrhea may be helpful in some cases, but they are not recommended for people whose diarrhea is from a bacterial infection or parasite—stopping the diarrhea traps the organism in the intestines, prolonging the problem. Instead, doctors usually prescribe antibiotics. Viral causes are either treated with medication or left to run their course, depending on the severity and type of the virus.

Preventing Dehydration

Dehydration occurs when the body has lost too much fluid and electrolytes (the salts potassium and sodium). The fluid and electrolytes lost during diarrhea need to be replaced promptly—the body cannot function properly without them. Dehydration is particularly dangerous for children, who can die from it within a matter of days.

Although water is extremely important in preventing dehydration, it does not contain electrolytes. To maintain electrolyte levels, you should also have chicken or beef broth, which contains sodium, and fruit and cola drinks, which contain potassium.

For children, doctors often recommend a special rehydration solution that contains the nutrients they need. You can buy this

solution in the grocery store without a prescription. Examples include Pedialyte, Ceralyte, and Infalyte.

Tips About Food

Until diarrhea subsides, try to avoid milk products and foods that are greasy, high-fiber, or very sweet. These foods tend to aggravate diarrhea.

As you improve, you can add soft, bland foods to your diet, including bananas, plain rice, boiled potatoes, toast, crackers, cooked carrots, and baked chicken without the skin or fat. For children, the pediatrician may recommend what is called the BRAT diet: bananas, rice, applesauce, and toast.

Preventing Traveler's Diarrhea

Traveler's diarrhea happens when you consume food or water contaminated with bacteria, viruses, or parasites. You can take the following precautions to prevent traveler's diarrhea when you go abroad:

- Do not drink any tap water, not even when brushing your teeth.
- Do not drink unpasteurized milk or dairy products.
- Do not use ice made from tap water.
- Avoid all raw fruits and vegetables (including lettuce and fruit salad) unless they can be peeled and you peel them yourself.
- Do not eat raw or rare meat and fish.
- Do not eat meat or shellfish that is not hot when served to you.
- Do not eat food from street vendors.

You can safely drink bottled water (if you are the one to break the seal), carbonated soft drinks, and hot drinks like coffee or tea.

Depending on where you are going and how long you are staying, your doctor may recommend that you take antibiotics before leaving to protect you from possible infection.

Points to Remember

- Diarrhea is a common problem that usually resolves on its own.

- Diarrhea is dangerous if a person becomes dehydrated.

- Causes include viral, bacterial, or parasitic infections; food intolerance; reactions to medicine; intestinal diseases; and functional bowel disorders.

- Treatment involves replacing lost fluids and electrolytes. Depending on the cause of the problem, a person might also need medication to stop the diarrhea or treat an infection. Children may need an oral rehydration solution to replace lost fluids and electrolytes.

- Call the doctor if a person with diarrhea has severe pain in the abdomen or rectum, a fever of 102 degrees Fahrenheit or higher, blood in the stool, signs of dehydration, or diarrhea for more than 3 days.

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