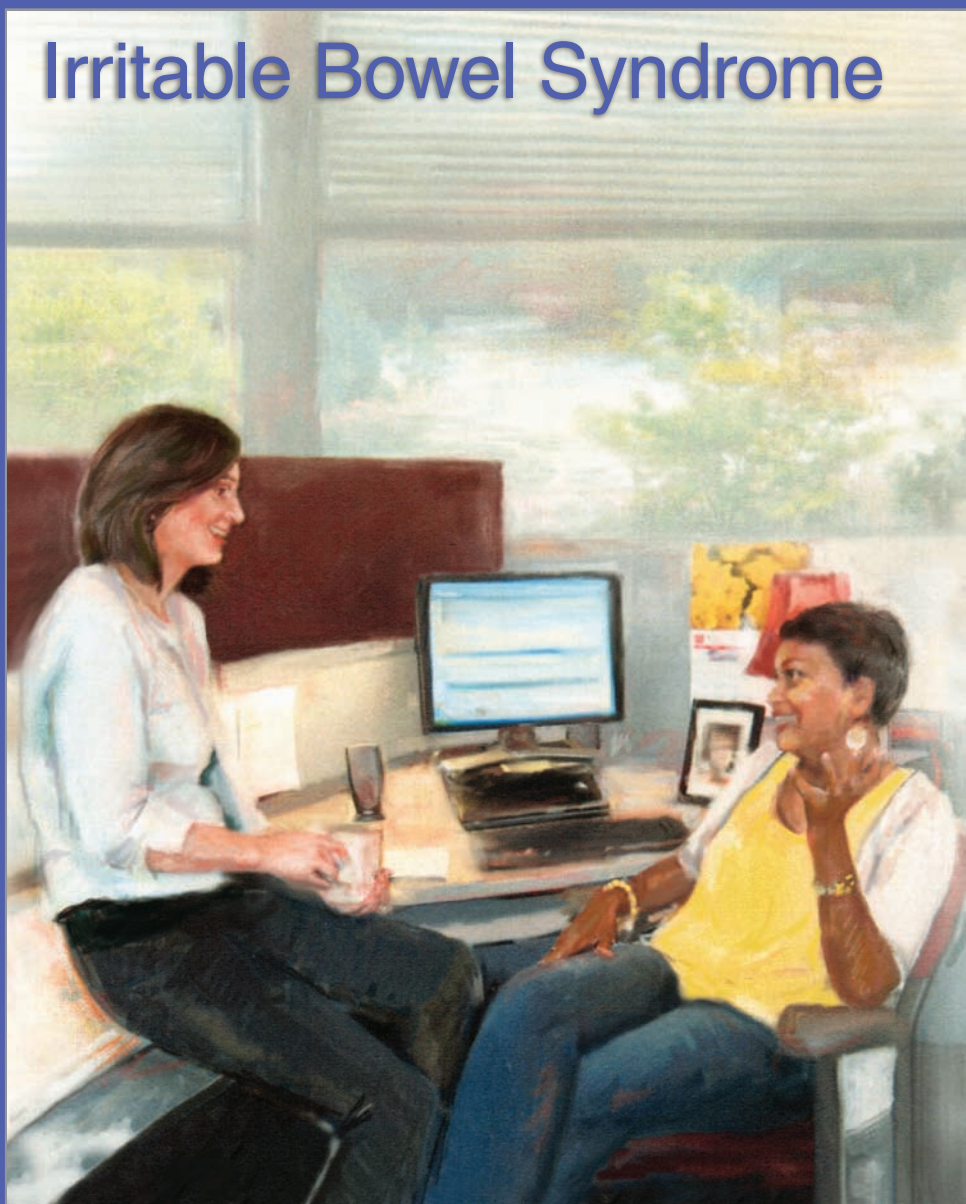


What I need to know about Irritable Bowel Syndrome



U.S. Department
of Health and
Human Services

NATIONAL INSTITUTES OF HEALTH



NATIONAL INSTITUTE OF
DIABETES AND DIGESTIVE
AND KIDNEY DISEASES

National Digestive Diseases
Information Clearinghouse

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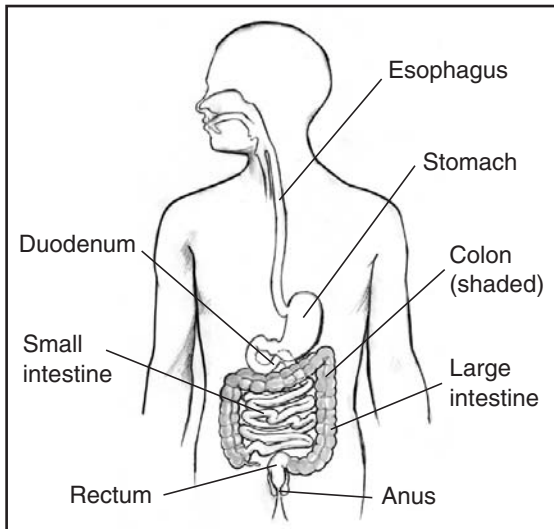
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What is irritable bowel syndrome (IBS)?

Irritable bowel syndrome* (IBS) is a **functional gastrointestinal (GI)** disorder, meaning that the symptoms are caused by changes in how the GI tract works. The GI tract is a series of hollow organs joined in a long, twisting tube from the mouth to the **anus**—the opening where stool leaves your body. Food is digested, or broken down, in the GI tract.



The GI tract is a series of hollow organs joined in a long, twisting tube from the mouth to the anus.

*See page 22 for tips on how to say the words in **bold** type.

IBS is not a disease. IBS is a group of symptoms that occur together. Symptoms can come and go repeatedly without signs of damage to the GI tract. The most common symptoms of IBS are **abdominal** pain or discomfort, often reported as cramping, along with **diarrhea, constipation**, or both.



What are the symptoms of IBS?

The symptoms of IBS include pain or discomfort in your **abdomen**—the area between your chest and hips—and changes in your bowel habits. The pain or discomfort of IBS may

- start when you have bowel movements more or less often than usual
- start when your stool appears looser and more watery or harder and more lumpy than usual
- go away after a bowel movement

The changes in bowel habits with IBS may be diarrhea, constipation, or both.

Symptoms of diarrhea are

- passing stools three or more times a day
- having loose, watery stools
- feeling an urgent need to have a bowel movement

Symptoms of constipation are

- passing three or fewer stools in a week
- having hard, dry stools
- straining to have a bowel movement

Some people with IBS have only diarrhea or only constipation. Some people have symptoms of both diarrhea and constipation or have diarrhea sometimes and constipation other times. People often have symptoms after eating a meal.

Other symptoms of IBS are

- whitish **mucus**—a clear liquid made by the **intestines**—in the stool
- a swollen or bloated abdomen
- the feeling that you haven't finished a bowel movement

Women with IBS often have more symptoms during their menstrual periods.

IBS is a **chronic** disorder, meaning it lasts a long time, often years. However, the symptoms may come and go. You may have IBS if

- you have had symptoms at least 3 days a month for the past 3 months
- your symptoms first started at least 6 months ago

While IBS can be painful, it doesn't lead to other health problems or damage the GI tract.



What causes IBS?

Doctors are not sure what causes IBS. Researchers are studying the following possible causes of IBS:

- **Brain-gut signal problems.** Signals between your brain and the nerves of your gut, or small and large intestines, control how your gut works. Problems with brain-gut signals may cause IBS symptoms, such as changes in your bowel habits and pain or discomfort.
- **Colon muscle problems.** The muscles of your **colon**, part of your large intestine, may not work normally. The muscles may contract, or tighten, too much. These contractions can move stool through the gut too quickly, causing cramping and diarrhea during or shortly after a meal. Or, these contractions may slow the movement of stool, causing constipation.
- **Sensitive nerves.** The nerves in your gut may be extra sensitive, causing you to feel more pain or discomfort than normal when gas or stool is in the gut.

- **Mental health issues.** **Psychological**, or mental health, issues such as anxiety or depression may be related to IBS in some people. Stress can make the nerves of your gut more sensitive, causing more discomfort. Or, discomfort in the gut may cause emotional distress.
- **Infections.** A bacterial infection in the GI tract may cause some people to develop IBS.
- **Small intestinal bacterial overgrowth (SIBO).** Normally, few bacteria live in the small intestine. SIBO is an increase in the number of bacteria or a change in the type of bacteria in the small intestine. These bacteria can produce excess gas and may also cause diarrhea and weight loss. Some researchers believe SIBO may lead to IBS, but more research is needed to show a link between SIBO and IBS.

How is IBS diagnosed?

Your doctor may be able to diagnose IBS based on your symptoms. Your doctor may not need to do medical tests or may do a limited number of tests.

Your doctor will ask about your

- medical history
- eating habits
- medicine use



Your doctor will look for a certain pattern in your symptoms. Your doctor can diagnose IBS by using symptom-based standards such as the Rome criteria. Based on the Rome criteria, IBS may be diagnosed if

- your symptoms started at least 6 months ago
- you have had abdominal pain or discomfort at least 3 days each month for the past 3 months
- your abdominal pain or discomfort has two or three of the following features:
 - Your pain or discomfort improves after a bowel movement.
 - When your pain or discomfort starts, you notice a change in how often you have a bowel movement.
 - When your pain or discomfort starts, you notice a change in the way your stools look.

Your doctor will also conduct a physical exam and may perform blood tests to make sure you don't have other health problems. IBS can have the same symptoms as other health problems, so more tests may be needed. If any blood tests suggest you may have another health problem, your doctor might also perform the following tests:

- **Stool test.** This test is used to check stool for blood or parasites, which are tiny organisms found in contaminated food or water. Your doctor will give you a container for catching and storing the stool. You will return the stool sample to your doctor or a commercial facility. The sample will be sent to a lab to check for blood or parasites. Your doctor may also check for blood in stool by examining your rectum—the lower end of the large intestine leading to the anus—during your physical exam.
- **Flexible sigmoidoscopy.** This test is used to look inside the rectum and lower colon. The test is performed at a hospital or outpatient center by a **gastroenterologist**—a doctor who specializes in digestive diseases. Anesthesia is usually not needed. Your doctor will give you written bowel prep instructions to follow at home before the test. You may need to follow a clear liquid diet for 1 to 3 days before the test. You may also

need a **laxative** or **enema** the night before the test. And you'll have one or more enemas about 2 hours before the procedure.

For the test, you will lie on a table while the doctor inserts a flexible tube into your anus. A small camera on the tube sends a video image of the intestinal lining to a computer screen. The test can show problems in the rectum or lower colon that may be causing your symptoms.

You can usually go back to your normal diet after the test, though you may have cramping or bloating during the first hour after the test.

- **Colonoscopy.** This test is used to look inside your rectum and entire colon. The test is performed at a hospital or outpatient center by a gastroenterologist. You'll be given a light sedative, and possibly pain medicine, to help you relax. Your doctor will give you written bowel prep instructions to follow at home before the test. You may need to follow a clear liquid diet

for 1 to 3 days before the test. You may need to take laxatives and enemas the evening before the test.

For the test, you will lie on a table while the doctor inserts a flexible tube into your anus. A small camera on the tube sends a video image of the intestinal lining to a computer screen. The test can show problems in the colon that may be causing your symptoms.

Cramping or bloating may occur during the first hour after the test. Driving is not permitted for 24 hours after the test to allow the sedative time to wear off. Before the appointment, you should make plans for a ride home. By the next day, you should fully recover and go back to your normal diet.

How is IBS treated?

Irritable bowel syndrome is treated by relieving symptoms through

- changes in eating, diet, and nutrition
- medicine
- **probiotics**
- psychological therapy

You may have to try a few treatments to see what works best for you. Your doctor can help you find the right treatment plan.

Eating, Diet, and Nutrition

Eating large meals can cause cramping and diarrhea in some people with IBS. If this happens to you, try to change your eating patterns by eating four or five small meals a day.



Certain foods or drinks may make symptoms worse, such as

- foods high in fat
- some milk products
- drinks with alcohol or caffeine
- drinks with large amounts of artificial sweeteners, which are used in place of sugar
- foods that may cause gas, such as beans or cabbage

To find out if certain foods trigger your symptoms, keep a diary and track

- what you eat during the day
- what symptoms you have
- when symptoms occur



Take your notes to your doctor and talk about which foods seem to make your symptoms worse. You may need to avoid these foods or eat less of them.

Fiber may reduce the constipation caused by IBS because it makes stool soft and easier to pass. Fiber is found in foods such as whole-grain breads and cereals, beans, fruits, and vegetables. The Academy of Nutrition and Dietetics recommends that adults consume 20 to 35 grams of fiber each day.

While fiber may help constipation, it may not be enough to treat the abdominal discomfort or pain of IBS. In fact, some people with IBS may feel a bit more abdominal discomfort after adding more fiber to their diet. Add foods with fiber a little at a time to let your body get used to them. Too much fiber at once can cause gas, which can trigger symptoms in people with IBS.

Medicine

Your doctor may give you medicine to help with symptoms. Follow your doctor's instructions when you use medicine to treat IBS. Talk with your doctor about possible side effects and what to do if you have them.

These medicines can lessen the symptoms of IBS:

- Laxatives treat constipation. Many kinds of laxatives are available. Your doctor can help you find the right laxative for you.
- Loperamide (Imodium) treats diarrhea.
- **Antispasmodics** help reduce muscle spasms in the intestines and help ease abdominal pain.
- **Antidepressants** in low doses can help relieve IBS symptoms.
- Lubiprostone (Amitiza) is prescribed for people who have IBS with constipation.

The antibiotic rifaximin can reduce bloating by treating SIBO. However, scientists are still debating the use of antibiotics to treat IBS, and more research is needed.



Probiotics

Probiotics are live microorganisms—tiny organisms that can only be seen with a microscope. These microorganisms, most often bacteria, are like the microorganisms normally found in your GI tract. Studies have found that probiotics, taken in large enough amounts, improve symptoms of IBS, but more research is needed. Probiotics can be found in dietary supplements, such as capsules, tablets, and powders, and in some foods, such as yogurt. Talk with your doctor before using probiotics to treat IBS to make sure you are taking the right kind and the right amount. You can find more information about probiotics in the National Center for Complementary and Alternative Medicine fact sheet *An Introduction to Probiotics* at www.nccam.nih.gov/health/probiotics/introduction.htm.

Psychological Therapy

Psychological therapy can help improve IBS symptoms.

- **Talk therapy.** Talking with a therapist may reduce stress and improve IBS symptoms. Two types of talk therapy used to treat IBS are **cognitive** behavioral therapy and **psychodynamic** or **interpersonal** therapy. Cognitive behavioral therapy focuses on your thoughts and actions. Psychodynamic therapy focuses on how your emotions affect your IBS symptoms. This type of therapy often involves techniques to help you relax and manage stress.
- **Gut-directed hypnotherapy.** In **hypnotherapy**, a therapist uses hypnosis to help you relax into a trancelike state. This type of therapy may help relax the muscles in your colon.
- **Mindfulness training.** People practicing this type of meditation are taught to focus their attention on sensations occurring at the moment and to avoid worrying about the meaning of those sensations, also called catastrophizing.

Does stress cause IBS?

Stress does not cause IBS, but if you already have IBS, stress can make your symptoms worse. In addition, simply having IBS symptoms can produce feelings of distress.

Learning to reduce stress can help with IBS. With less stress, you may find you have less cramping and pain. You may also find it easier to manage your symptoms.

Meditation, exercise, hypnosis, and counseling may help lessen IBS symptoms. Getting enough sleep and changing life situations to make them less stressful may also help. You may need to try different activities to see what works best for you.

Points to Remember

- Irritable bowel syndrome (IBS) is a functional disorder, meaning that the symptoms are caused by changes in how the gastrointestinal (GI) tract works.
- IBS is not a disease. IBS is a group of symptoms that occur together. Symptoms can come and go repeatedly without signs of damage to the GI tract.
- The symptoms of IBS include pain or discomfort in your abdomen and changes in your bowel habits.
- While IBS can be painful, it doesn't lead to other health problems or damage the GI tract.
- Doctors are not sure what causes IBS. Researchers are studying the following possible causes of IBS: brain-gut signal problems, colon muscle problems, sensitive nerves, mental health issues, infections, and small intestinal bacterial overgrowth (SIBO).
- Your doctor may be able to diagnose IBS based on your symptoms, without using medical tests.

- IBS is treated by relieving symptoms through changes in eating, diet, and nutrition; medicine; probiotics; and psychological therapy.
- Stress doesn't cause IBS, but it can make your symptoms worse.

Hope through Research

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) conducts and supports research into many kinds of digestive disorders, including IBS. The NIDDK and other components of the National Institutes of Health (NIH) are conducting clinical trials aimed at improving the diagnosis and treatment of IBS. Self Administered Cognitive Behavior Therapy for Irritable Bowel Syndrome, funded under NIH clinical trial number NCT00738920, assesses the short- and long-term efficacy of cognitive behavior therapy for IBS using two treatment delivery systems: self-administered and therapist administered. Long-term project goals include development of an effective self-administered behavioral treatment program that can enhance quality of patient care, improve clinical outcomes, and decrease the economic and personal costs of IBS.

Safety Study of Probiotics in Adults with Irritable Bowel Syndrome, funded under NIH clinical trial number NCT00971711, is a phase I study of the safety and effectiveness of VSL#3 in adults with IBS. VSL#3 is a high-potency probiotic medical food that is commercially available. Acupuncture/Moxibustion for Irritable Bowel Syndrome (Acu/MoxalIBS), funded under NIH clinical trial number NCT00945074, tests the efficacy of acupuncture in combination with moxibustion for symptom improvement in adults with IBS. Moxibustion is the application of heat from a burning herb at the acupuncture point. All participants will receive moxibustion and will be assigned to one of three treatment protocols: standard acupuncture, individualized acupuncture, and sham acupuncture.

Participants in clinical trials can play a more active role in their own health care, gain access to new research treatments before they are widely available, and help others by contributing to medical research. For information about current studies, visit www.ClinicalTrials.gov.

Pronunciation Guide

abdomen (AB-doh-men)

abdominal (ab-DOM-ih-nuhl)

antidepressants (AN-tee-dee-PRESS-uhnts)

antispasmodics (AN-tee-spaz-MOD-iks)

anus (AY-nuhss)

chronic (KRON-ik)

cognitive (KOG-nih-tiv)

colon (KOH-lon)

colonoscopy (KOH-lon-OSS-kuh-pee)

constipation (KON-stih-PAY-shuhn)

diarrhea (DY-uh-REE-uh)

enema (EN-uh-muh)

flexible sigmoidoscopy (FLEK-suh-buhl)
(SIG-moy-DOSS-kuh-pee)

functional (FUHNK-shuhn-uhl)
gastroenterologist (GASS-troh-EN-tur-OL-uh-jist)
gastrointestinal (GASS-troh-in-TESS-tin-uhl)
hypnotherapy (HIP-noh-THAIR-uh-pee)
interpersonal (IN-tur-PUR-suhn-uhl)
intestines (in-TESS-tinz)
irritable bowel syndrome (IHR-ih-tuh-buhl) (boul)
(SIN-droh)
laxative (LAK-suh-tiv)
mucus (MYOO-kuhss)
probiotics (PROH-by-OT-iks)
psychodynamic (SY-koh-dy-NAM-ik)
psychological (SY-koh-LOJ-ih-kuhl)

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Rome Foundation

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