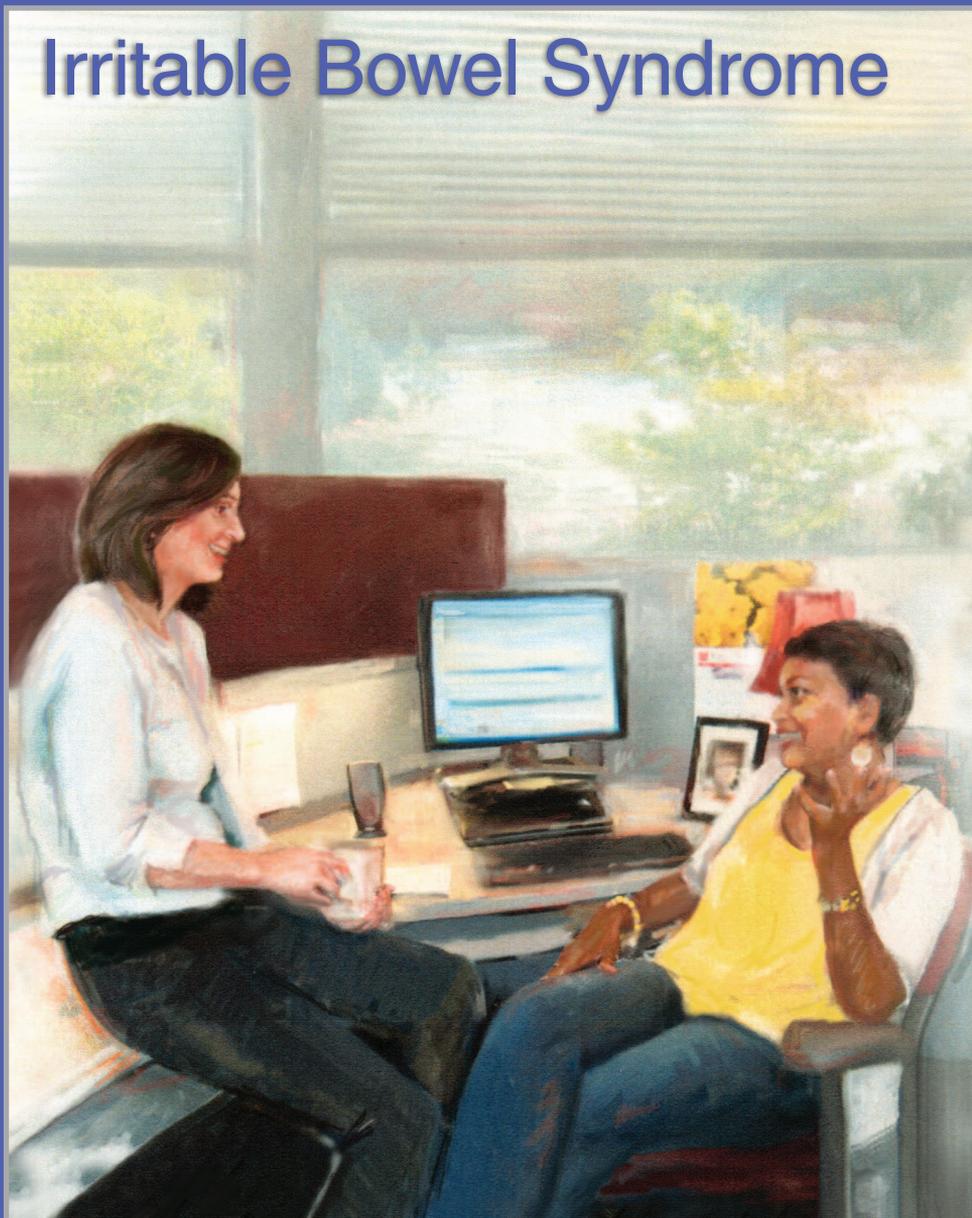


What I need to know about Irritable Bowel Syndrome



National Institute of
Diabetes and Digestive
and Kidney Diseases

National Digestive Diseases
Information Clearinghouse

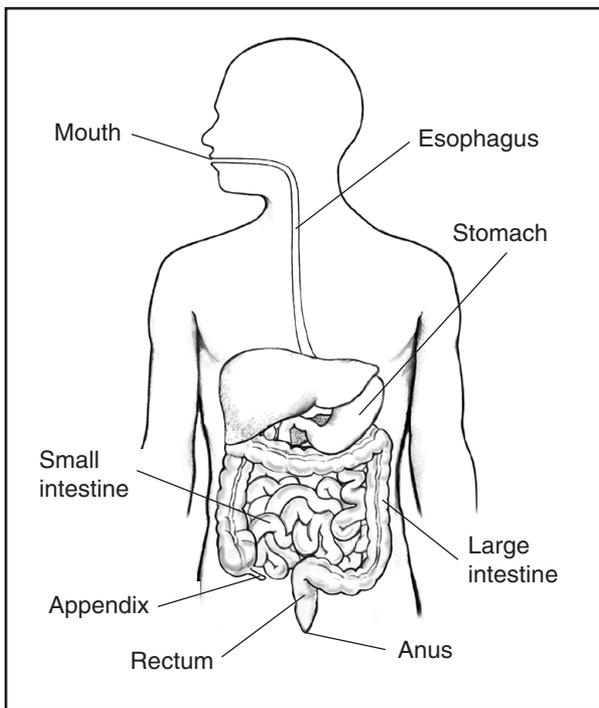
What I need to know about Irritable Bowel Syndrome

Contents

What is irritable bowel syndrome (IBS)?.....	1
What are the symptoms of IBS?	2
What causes IBS?.....	5
How is IBS diagnosed?	7
How is IBS treated?	12
Eating, Diet, and Nutrition	12
Does stress cause IBS?	18
Points to Remember	19
Hope through Research	21
Pronunciation Guide.....	22
For More Information	24
Acknowledgments.....	25

What is irritable bowel syndrome (IBS)?

Irritable bowel syndrome* is a **functional gastrointestinal (GI)** disorder, meaning 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 through which stool leaves your body. Food is digested, or broken down, in the GI tract.



The organs of the GI tract

*See the Pronunciation Guide for tips on how to say the words in **bold** type.

IBS is a group of symptoms that occur together, not a disease. Symptoms can come and go repeatedly without signs of damage to the GI tract.



What are the symptoms of IBS?

The most common 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 be reported as cramping and

- starts when you have bowel movements more or less often than usual
- starts when your stool appears looser and more watery or harder and more lumpy than usual
- goes 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 fewer than three 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 three times 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 may move stool through your gut too quickly, causing cramping and diarrhea during or shortly after a meal, or 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 and emotional distress.
- **Infections.** A bacterial infection in the GI tract may cause some people to develop IBS.
- **Small intestinal bacterial overgrowth.** Normally, few bacteria live in the small intestine. Small intestinal bacterial overgrowth is an increase in the number or a change in the type of bacteria in the small intestine. These bacteria can produce extra gas and may also cause diarrhea and weight loss. Some researchers believe small intestinal bacterial overgrowth may lead to IBS; however, more research is needed to show a link between the two conditions.

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 three times a 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.** A stool 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.** Flexible sigmoidoscopy is used to look inside your rectum and lower colon. The test is performed at a hospital or an 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 an **enema** the night before the test. You may also 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 your intestinal lining to a computer screen. The test can show problems in your 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.** Colonoscopy is used to look inside your rectum and entire colon. The test is performed at a hospital or an 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 your intestinal lining to a computer screen. The test can show problems in your 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 so that the sedative can 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 you experience these symptoms, 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
- beans, cabbage, and other foods that may cause gas

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 improve constipation symptoms 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 21 to 38 grams of fiber a 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 relieve 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 ease abdominal pain.
- **Antidepressants** in low doses can help relieve IBS symptoms.
- Lubiprostone (Amitiza) is prescribed for people who have IBS with constipation.
- Linaclotide (Linzess) is also prescribed for people who have IBS with constipation.

The antibiotic rifaximin can reduce bloating by treating small intestinal bacterial overgrowth; 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 be seen only 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; however, 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, supplements, or any other complementary or alternative medical treatment. Read more at www.nccam.nih.gov/health/probiotics.

Psychological Therapy

Psychological therapy can help improve IBS symptoms.

- **Talk therapy.** Talk therapy 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 may help relax the muscles in your colon by putting you into a trance-like state.
- **Mindfulness training.** Mindfulness training can teach you to focus your attention on sensations occurring at the moment and to avoid catastrophizing, or worrying about the meaning of those sensations.

Does stress cause IBS?

Although stress does not cause IBS, if you already have IBS, stress can make your symptoms worse. In addition, simply having IBS symptoms can produce stress.

Learning to reduce stress can help improve 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 gastrointestinal (GI) disorder, meaning symptoms are caused by changes in how the GI tract works.
- IBS is a group of symptoms that occur together, not a disease. Symptoms can come and go repeatedly without signs of damage to the GI tract.
- The most common symptoms of IBS include pain or discomfort in your abdomen—the area between your chest and hips—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
 - small intestinal bacterial overgrowth

- 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.
- IBS is treated by relieving symptoms through
 - changes in eating, diet, and nutrition
 - medicine
 - probiotics
 - psychological therapy
- Although stress does not cause IBS, if you already have IBS, stress can make your symptoms worse.

Hope through Research

The National Institute of Diabetes and Digestive and Kidney Diseases' (NIDDK's) Division of Digestive Diseases and Nutrition conducts and supports basic and clinical research into many digestive disorders.

Clinical trials are research studies involving people. Clinical trials look at safe and effective new ways to prevent, detect, or treat disease. Researchers also use clinical trials to look at other aspects of care, such as improving the quality of life for people with chronic illnesses. To learn more about clinical trials, why they matter, and how to participate, visit the NIH Clinical Research Trials and You website at www.nih.gov/health/clinicaltrials. 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)

For More Information

American Neurogastroenterology and Motility Society

45685 Harmony Lane

Belleville, MI 48111

Phone: 734-699-1130

Fax: 734-699-1136

Email: admin@motilitysociety.org

Internet: www.motilitysociety.org

International Foundation for Functional Gastrointestinal Disorders

700 West Virginia Street, Suite 201

Milwaukee, WI 53204

Phone: 1-888-964-2001 or 414-964-1799

Fax: 414-964-7176

Email: iffgd@iffgd.org

Internet: www.iffgd.org

Rome Foundation, Inc.

P.O. Box 6524

Raleigh, NC 27628

Phone: 919-539-3051

Fax: 919-900-7646

Email: mpickard@theromefoundation.org

Internet: www.romecriteria.org

Acknowledgments

Publications produced by the Clearinghouse are carefully reviewed by both NIDDK scientists and outside experts. This publication was reviewed by Douglas A. Drossman, M.D., University of North Carolina at Chapel Hill.

Thank you also to the Salvation Army, SE Corps, Washington, D.C., for facilitating field-testing of the original version of this publication.

The U.S. Government does not endorse or favor any specific commercial product or company. Trade, proprietary, or company names appearing in this document are used only because they are considered necessary in the context of the information provided. If a product is not mentioned, the omission does not mean or imply that the product is unsatisfactory.

National Digestive Diseases Information Clearinghouse

2 Information Way
Bethesda, MD 20892-3570
Phone: 1-800-891-5389
TTY: 1-866-569-1162
Fax: 703-738-4929
Email: nddic@info.niddk.nih.gov
Internet: www.digestive.niddk.nih.gov

The National Digestive Diseases Information Clearinghouse (NDDIC) is a service of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). The NIDDK is part of the National Institutes of Health of the U.S. Department of Health and Human Services. Established in 1980, the Clearinghouse provides information about digestive diseases to people with digestive disorders and to their families, health care professionals, and the public. The NDDIC answers inquiries, develops and distributes publications, and works closely with professional and patient organizations and Government agencies to coordinate resources about digestive diseases.

This publication is not copyrighted. The Clearinghouse encourages users of this publication to duplicate and distribute as many copies as desired.

This publication is available at www.digestive.niddk.nih.gov.

This publication may contain information about medications and, when taken as prescribed, the conditions they treat. When prepared, this publication included the most current information available. For updates or for questions about any medications, contact the U.S. Food and Drug Administration toll-free at 1-888-INFO-FDA (1-888-463-6332) or visit www.fda.gov. Consult your health care provider for more information.



National Institute of
Diabetes and Digestive
and Kidney Diseases

NIH Publication No. 13-4686
September 2013

 The NIDDK prints on recycled paper with bio-based ink.