

Irritable Bowel Syndrome

What is irritable bowel syndrome?

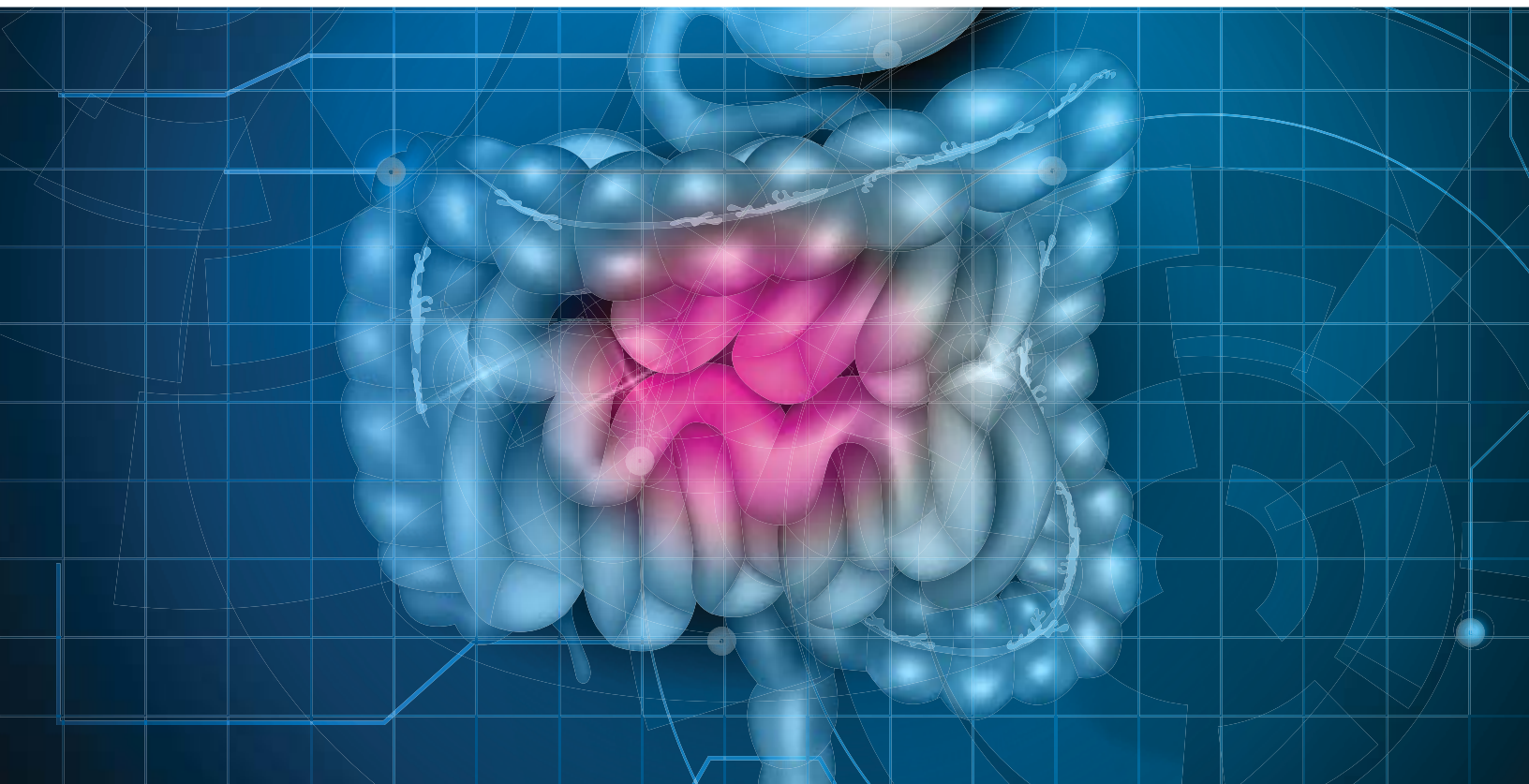
- Irritable bowel syndrome (IBS) is a pain-predominant functional gastrointestinal disorder (p-FGID). p-FGIDs are “disorders of the gut-brain interaction” in which the brain signals and gastrointestinal (GI) tract are miscommunicating. This miscommunication can cause a variety of GI symptoms, with pain being a primary complaint.
- People with IBS experience chronic abdominal pain and altered bowel habits. Altered bowel habits include constipation, diarrhea, or mixed bowel habits (i.e., alternating constipation and diarrhea).

What causes irritable bowel syndrome?

- IBS can be caused by many factors, including changes in the GI tract, genetics, early life events, environmental influences, and psychological temperament. Examples include:
 - Visceral hypersensitivity: Patients with IBS have “visceral hypersensitivity”, which means that

nerves in the GI tract are overactive and highly sensitive. This hypersensitivity causes increased pain even with normal intestinal function (for example, having a bowel movement).

- Abnormal motility: Some patients with IBS experience abnormal movement of contents through the GI tract. In patients with increased intestinal contractions, contents can move too quickly, leading to diarrhea and acute abdominal pain. Slow movement likely causes IBS with constipation. Stress can impair GI movement in people with IBS.
- Microbiome: The GI tract normally contains bacteria and other microorganisms that help keep it healthy. This “microbiome” is unique to every individual and is influenced by genetics and diet. It is ultimately thought to shape a person’s biology related to health and disease. People who have IBS have different gut bacteria and stool bacteria than people without IBS. This difference in gut and stool bacteria may make IBS worse.



- Postinfectious IBS: The bacteria in the gut can also change after an illness or infection. These changes can make nerves of the gut and intestines more sensitive, causing abdominal pain.
- Food sensitivity: Food and diet likely impact IBS. Some people experience more symptoms after consuming specific foods, called trigger foods.
- Stress: IBS is caused by miscommunication between the brain and GI tract. Changes in mood, increased anxiety, and physical stress likely alter this communication. While stress and anxiety do not solely cause the symptoms of IBS, they can worsen them. How the brain and gut interact likely affects the severity of symptoms and the patient's illness. Treatments to promote relaxation, like counseling, yoga, acupuncture, and guided imagery, may help.

How common is irritable bowel syndrome?

IBS is a commonly diagnosed gastrointestinal condition. It accounts for approximately 30% of referrals to gastroenterologists. Studies have identified IBS symptoms in 8%–25% of children.

What are the signs and symptoms of irritable bowel syndrome?

- Abdominal pain/cramping
- Constipation
- Diarrhea
- Flatulence
- Abdominal distention (bloating)
- Belching

How is irritable bowel syndrome diagnosed?

There is no one specific test or biomarker to diagnose IBS. Rather, a thorough evaluation and physical exam by your child's healthcare provider is needed for diagnosis. Certain signs and symptoms called the "Rome Criteria" help providers make an appropriate diagnosis. Relevant signs and symptoms include:

- Recurrent abdominal pain at least 1 day per week in the past 3 months, associated with 2 or more of the following:
 - Related to a bowel movement
 - Associated with a change in frequency of stool
 - Associated with a change in appearance of stool

Testing is often not needed to diagnose IBS, although your child's provider may order some simple screening tests to look for any additional causes of pain. Testing is specific to each patient but may include:

- Blood tests
- Stool studies
- Abdominal ultrasound to evaluate organs inside the abdomen
- Upper endoscopy to check for inflammation or infection; this is done using a camera that is passed through the mouth to look at the esophagus, stomach, and part of the small intestine
- Colonoscopy to assess for inflammation and infection; this is done using a camera that is passed through the anus to look at the rectum, large intestine, and last part of the small intestine

What is the treatment for irritable bowel syndrome?

- Treatment for IBS is based on symptom type and severity.
- Lifestyle modifications can be helpful.
 - Exercise: Physical activity can help reduce both stress and symptoms.
 - Stress reduction: Often there is a stress component associated with IBS. In periods of stress or even excitement, IBS symptoms often increase. Deep breathing exercises, yoga, hypnotherapy, guided imagery, and cognitive-behavioral therapy can help patients relieve pain when symptoms occur.
 - Improved sleep hygiene:
- Avoid caffeine close to bedtime.
- Avoid screen time before bedtime.

- Avoid eating foods that are known to disturb sleep 1–2 hours before bedtime. These can include fried or fatty foods, greasy foods, spicy foods, and acidic foods.
- Establish a consistent, relaxing routine at bedtime.
- Engage in daily aerobic exercise.
- Medications can improve some symptoms associated with IBS.

- Osmotic stool softeners and laxatives: For IBS with constipation, control of constipation is important. Your child's healthcare provider may recommend stool softeners or stimulant laxatives to help your child have daily soft bowel movements.
- Antispasmodics: These medications help treat abdominal pain and spasms in all IBS subtypes. These medications include dicyclomine and hyoscyamine and can be taken as needed to help improve abdominal pain.
- Peppermint oil: This supplement has antispasmodic properties and can help relieve abdominal pain.
- Antidepressants: This class of medications improves abdominal pain and IBS symptoms, particularly in those who have IBS with diarrhea. It decreases loose stools and reduces stool urgency by targeting nerve hypersensitivity in the GI tract. Tricyclic antidepressants (TCAs) and selective serotonin reuptake inhibitors (SSRIs) are specific classes of antidepressants/antianxiety medications that can help treat IBS symptoms in children.

- Probiotics: Some studies show that patients may have improvement in abdominal pain and bloating when taking a probiotic.
- Every child is different—it is important to talk to your child's healthcare provider/gastroenterologist about the best treatment plan for his or her IBS symptoms. A combination of lifestyle changes and medication may be recommended to see the most improvement in symptoms.

When should I seek medical attention for my child?

Your child's healthcare provider should discuss with your family signs and symptoms that require urgent medical attention. In general, you should contact your child's healthcare provider/gastroenterologist or go to the nearest emergency department if your child experiences any of the following:

- Persistent or severe diarrhea or blood in stools
- Severe abdominal pain
- Fainting or loss of consciousness
- Severe dehydration (decreased urine output, sunken fontanel, severe diarrhea or vomiting, crying without tears being produced, inability to keep any fluids down without vomiting)
- Vomit that is bright green and contains bile
- Fever higher than 101°F

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Reviewed: Andrea M. Glaser, MD 2/5/2020

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