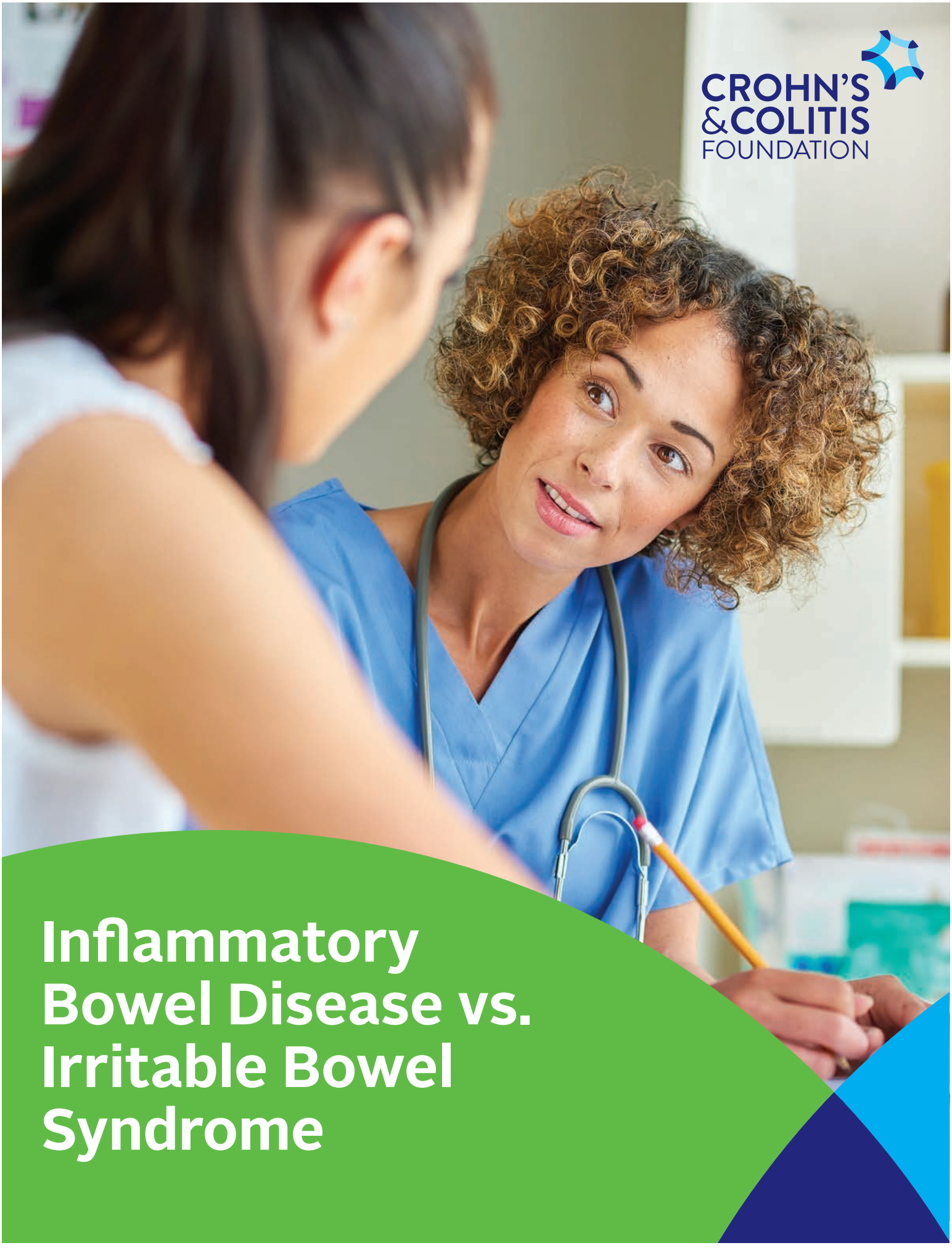


CROHN'S & COLITIS FOUNDATION

Inflammatory Bowel Disease vs. Irritable Bowel Syndrome

What is the Difference Between Inflammatory Bowel Disease (IBD) and Irritable Bowel Syndrome (IBS)?

IBD and IBS are two illnesses that can affect the gastro-intestinal (GI) tract. Both can cause abdominal pain and changes in bowel movements; however, they are not the same. While there are many similarities between IBD and IBS, it is important to highlight the differences.

IBD:

- Chronic inflammatory diseases involving the GI tract, including Crohn's disease and ulcerative colitis.
- Immune cells cause inflammation and ulceration in the lining of the intestines, which can lead to frequent and/or urgent bowel movements, abdominal pain, diarrhea, or bleeding.
- In IBD, the GI tract is damaged. Symptoms can be different for everyone and depend on the type of IBD and where the inflammation is located in the GI tract.

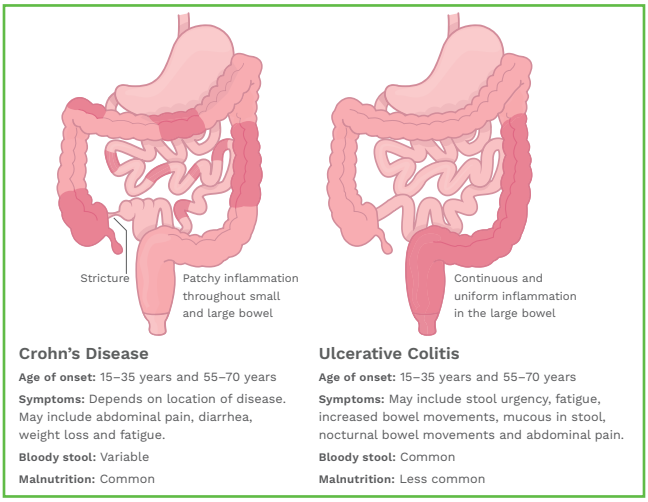
VS.

IBS:

- Functional GI disorder that causes recurrent abdominal pain and changes in bowel movements.
- Symptoms may include bloating, constipation, diarrhea, or mixed diarrhea with constipation.
- Patients with IBS have these symptoms without damage to the GI tract.
- Endoscopy and radiology tests do not show inflammation.

Inflammatory Bowel Disease

IBD is a term for chronic inflammation of the gastrointestinal tract. The two most common inflammatory bowel diseases are Crohn's disease and ulcerative colitis (UC). IBD affects as many as 3.1 million Americans,[1,2] most of whom are diagnosed before age 35. There are currently no cures for IBD, but there are treatments to reduce bowel inflammation and control the symptoms of the disease.



Crohn's Disease

Age of onset: 15–35 years and 55–70 years

Symptoms: Depends on location of disease. May include abdominal pain, diarrhea, weight loss and fatigue.

Bloody stool: Variable

Malnutrition: Common

Ulcerative Colitis

Age of onset: 15–35 years and 55–70 years

Symptoms: May include stool urgency, fatigue, increased bowel movements, mucous in stool, nocturnal bowel movements and abdominal pain.

Bloody stool: Common

Malnutrition: Less common

Crohn's disease and UC cause chronic inflammation of the GI tract. Crohn's disease can affect any part of the GI tract, but frequently affects the end of the small intestine and the beginning of the large intestine (colon). The inflammation in Crohn's disease can involve the entire bowel wall. UC affects only the large intestine (colon) and the rectum. The inflammation in UC involves only the inner lining of the intestine.

Symptoms

The symptoms of IBD vary from person-to-person, may depend on what part of the bowel is affected by inflammation, and may change over time. Common symptoms for Crohn's disease and UC include frequent and/or urgent bowel movements, diarrhea, bloody stool, abdominal pain, and cramping.

People with IBD may also report symptoms such as fatigue, lack of appetite, and weight loss. People with IBD may have times of active disease (flare), when symptoms and bowel inflammation are present.

They may also have times of remission, when little or no symptoms are present. When bowel inflammation is reduced by taking an effective medication treatment, flares are less frequent.

Causes

The exact cause of IBD remains unknown. Researchers believe that a combination of factors interact, leading a patient to develop IBD.

- Inherited genetic risk
- Environmental risk factors
- Imbalance or changes in the intestinal bacteria (gut microbiome)
- An inappropriate reaction from the immune system

Normally, immune cells protect the body from infection, but in people with IBD, the immune system mistakes harmless substances in the intestine for foreign substances and launches an attack, causing inflammation.

Who Gets IBD?

As many as 70,000 new cases of IBD are diagnosed in the United States each year.

- **Age:** IBD can occur at any age, but the median age of diagnosis is 29.5 years for Crohn's disease and 34.9 years for ulcerative colitis.[3]
- **Gender:** In general, IBD affects men and women equally.

- **Ethnicity:** IBD is more common among Caucasians, but it can affect people of any racial or ethnic group.
- **Family history:** The risk for developing IBD is between 1.5 percent and 28 percent for first-degree relatives of an affected person.[4]
- **Cigarette smoking:** Smokers are more likely to develop Crohn's disease. UC is more common in non-smokers and former smokers.

Diagnostic Procedures

To help confirm a diagnosis of Crohn's disease or UC, one or more of the following tests and diagnostic procedures may be performed:

- **Blood tests:** The presence of inflammation in the body can be identified by examining the levels of several factors in the blood, including red and white blood cells, platelets, and C-reactive protein (CRP) —a protein made by your liver that is sent into your bloodstream in response to inflammation.

  Tests may be performed to help healthcare providers differentiate IBD from non-IBD. Blood tests can be used to evaluate a patient's risk of developing disease complications, or to check if and how medications are working in the body.
- **Stool tests:** Stool tests may check for infection or inflammation (fecal calprotectin) in the GI tract by examining levels of a protein in the stool called fecal calprotectin.

The exact cause of Crohn's disease and UC remains unknown. Researchers believe that several factors, such as genetic risk and an inappropriate reaction from the immune system, play a role in their development.

- **Endoscopic procedures:** Endoscopies get a detailed look at the inside of your digestive tract using a small camera mounted to the end of a lighted tube.

  Crohn's disease:
  An **upper endoscopy** lets doctors see the GI tract from the top down, using a flexible, lighted tube that's inserted through your mouth, down the esophagus, into your stomach, and as far down as the duodenum, which is the first section of your small intestine.

  Ulcerative colitis:
  A **sigmoidoscopy** allows your doctor to examine the extent of the inflammation in your lower colon and rectum.

  Crohn's disease and ulcerative colitis:
  A **colonoscopy** allows doctors to examine the colon, the lowest part of your large intestine, by inserting a flexible, lighted tube through the opening to your anus.
- **External imaging procedures:** Images of the digestive organs and other soft tissues are taken from outside the body. Examples include computerized tomography (CT) scans and magnetic resonance imaging (MRI).

IBD Complications

Possible complications of IBD can include:

- Bowel obstruction
- Deep ulcerations
- Extraintestinal manifestations
- Infection
- Malnutrition
- Precancerous changes in the colon or colon cancer

Irritable Bowel Syndrome

IBS is a condition that affects the function and behavior of the intestines. Normally, the muscles lining the intestines contract and relax to move food along the digestive tract. In IBS, this pattern is disturbed, resulting in uncomfortable symptoms. In addition, there can be a disturbance in sensation, with heightened sensitivity to normal gas or stool passing through the GI tract. It is important to remember that patients with IBD can also have IBS, but having IBS does not lead to IBD.

Symptoms

Many people experience mild symptoms of IBS, but for some, symptoms can be severe. Symptoms can include cramping, abdominal pain, bloating, gas, mucus in the stool, diarrhea, and/or constipation. Much like IBD, there may be times when symptoms are present and times when little or no symptoms are present. But, unlike IBD, IBS does not cause inflammation, does not cause permanent damage to the GI tract, and does not increase the risk of colorectal cancer.

Causes

The exact cause of IBS is unknown. Potential causes may include sensitivity of the GI tract to gas and bloating, changes in the microbiome (organisms in the gut), or changes in the levels of specific compounds or chemicals within the body, such as serotonin—a chemical in the body that helps regulate mood and social behavior. Although stress does not cause IBS, many people with IBS notice that stress does aggravate their symptoms. Having IBD or a recent GI tract infection (like gastroenteritis) can increase the risk for developing IBS.

Who Gets IBS?

IBS affects 10–12% of adults in North America.[5]

- **Age:** IBS occurs in all age groups, but is most commonly diagnosed in individuals under age 50.[5]
- **Gender:** IBS is more common in women.

IBS does not cause inflammation, damage the GI tract, or increase the risk of colorectal cancer.

- **Family history:** Research shows that many people with IBS have a first-degree relative (parent, child, or sibling) with the disorder.
- **Infection:** Around 40% of people who develop IBS do so after an infection in their digestive system. After the infection clears, the symptoms remain (i.e., post-infectious IBS).
- **Psychological history:** Some studies indicate that psychological distress, especially anxiety, depression, and childhood trauma, may be risk factors.

Diagnostic Procedures

Diagnosing IBS typically involves a physical exam and medical history. It is important to exclude other GI conditions. The Rome IV criteria defines IBS as recurrent abdominal pain, on average one day a week in the last three months, associated with at least two of the following:[6]

1) Relation to defecation (discharging feces)

2) Change in frequency of stool

3) Change in the form (appearance) of the stool.

The evaluation may include blood tests, stool samples, endoscopic procedures, or imaging procedures (like a CT scan or MRI). In patients with IBS, anemia is not apparent, stool calprotectin is normal, and no inflammation is seen on endoscopy or imaging tests.

Complications

IBS can significantly affect quality of life. Research shows that patients with IBS may undergo more medical testing, as compared with patients without IBS.

Similarities and Differences Between IBD and IBS

IBD	IBS	
May include diarrhea, abdominal pain, cramping, urgent or frequent bowel movements, blood in the stool, decreased appetite, weight loss, or joint pain.	May include diarrhea, constipation, abdominal pain, abdominal bloating, cramping, mucus in stool, bloating, and/or gas. Blood in the stool and weight loss are NOT typically seen in IBS, and joint pain is uncommon.	Symptoms
• Anemia may be present • Stool calprotectin is often elevated • Endoscopy: redness, ulceration, bleeding seen with scope • Imaging (CT or MRI): inflammation of bowel wall is common	• No anemia is present • Stool calprotectin is normal • Endoscopy: No inflammation is seen with a scope • Imaging (CT or MRI): No inflammation of the bowel wall	Diagnostics
Treatments are prescribed to reduce bowel inflammation and control symptoms: Aminosalicylates, antibiotics, biologic or biosimilar therapies, corticosteroids, immunomodulators, or JAK inhibitors may be recommended. For more information on IBD medications visit *www.ibdmedicationguide.org*.	Treatments are prescribed to treat specific IBS symptoms: Diarrhea Medications: Alosetron, atropine, eluxadoline, loperamide, diphenoxylate, rifaximin Other: low FODMAP diet, gluten-free diet, behavioral interventions (cognitive behavioral therapy, gut-directed hypnotherapy) Constipation Medications: Linaclotide, lubriprosone, plecanatide Other: General laxatives, fiber supplementation with psyllium, behavioral interventions (Cognitive Behavioral Therapy, Gut-Directed Hypnotherapy) Pain: Antispasmodics (hyoscyamine, dicyclomine, peppermint oil), tricyclic antidepressants, selective serotonin reuptake inhibitors, psychological therapies (cognitive behavioral therapy, gut-directed hypnotherapy, relaxation therapy). Bloating/Gas: Probiotics, dietary changes	Treatment
Crohn's disease—Stenosis, fistula, abscess, bowel obstruction, and colon cancer (if the colon is involved) UC—Colon cancer and toxic megacolon Both Crohn's disease and UC—ulcers, malnutrition, anemia Psychological Impacts: Impaired quality of life, increased risk for anxiety, depression, and post-traumatic stress, and stigmatization.	Chronic constipation and diarrhea may cause hemorrhoids. Psychological Impacts: Impaired quality of life, increased risk for anxiety and depression, and stigmatization.	Complications

Treating IBD and IBS

Diet and Nutrition

IBD and IBS are not caused by diet. However, many patients notice that diet can affect symptoms.

- There is no single diet or eating plan that works for everyone, so work with your healthcare team and/or dietitian to create a plan that works for you
- Keep a food journal to track your symptoms when eating different food groups
- Slowly introduce new foods into your diet
- Dietary recommendations must be individualized

The key is to strive for a well-balanced, healthy diet. A balanced diet should include an adequate amount of calories and nutrients, as well as contain foods from all food groups.

It is also important for people with IBD or IBS to pay attention to fluid intake. Chronic diarrhea can lead to dehydration. Stay hydrated by drinking enough to keep your urine light yellow to clear.

During disease flare-ups, eating may cause abdominal discomfort and cramping. Here are some ways to reduce those symptoms:

- **Eat smaller meals at more frequent intervals:** Eat five small meals a day, every three or four hours, rather than the traditional three large meals a day

- **Reduce the amount of greasy or fried foods:** High-fat foods may cause diarrhea and gas due to poor fat absorption
- **Watch dairy intake:** Persons who are lactose intolerant or who are experiencing IBD or IBS may need to limit the amount of milk or milk products they consume
- **Keep a food diary and eliminate (trigger) foods:** Eliminate any foods that make symptoms worse. These may include gassy food (such as beans, cabbage and broccoli), spicy food, popcorn, and alcohol, as well as foods and drinks that contain caffeine, such as chocolate and soda

It is important to keep a food journal to help you understand which foods can be tolerated, and which foods increase symptoms during a flare.

To learn more about diet and nutrition, view our Diet, Nutrition, and Inflammatory Bowel Disease brochure by visiting: *www.crohnscolitisfoundation.org/brochures*.

Medications

For a listing of medications used to treat IBD and/or IBS, please refer to the chart on page 5.

Anxiety and Depression

For patients with IBD and IBS, anxiety and depression can make symptoms worse. Consultation with a psychologist or psychiatrist familiar with IBD and IBS can be very helpful in managing these conditions.

Treating the physical symptoms of IBD and IBS may be more complicated when depression and anxiety are uncontrolled. There are pharmacological or psychological treatments for both of these conditions. Treatment of anxiety and depression can be an important part of IBD and IBS, and may make care more effective.

Psychological Therapies

Patients treated with psychological therapies may experience improvement in their symptoms. Two forms of psychotherapy—cognitive behavioral therapy (CBT) and gut-directed hypnotherapy—have the most evidence for reducing pain as well as the frequency, intensity, and duration of IBD and IBS symptoms.

CBT has shown promise for patients with moderate to severe IBD and for those with IBS who also suffer from anxiety or mood disorders.[7] CBT can help patients learn coping strategies to control the symptoms brought on by anxiety.

Gut-directed hypnotherapy is one of the most successful treatment approaches for chronic IBS, both in the short-term and the long-term with many patients finding symptomatic relief.[8] Studies suggest that in addition to decreasing pain perception at the level of the brain, hypnosis may improve immune function in IBD and IBS, increase relaxation, reduce stress, and ease feelings of anxiety.

Reducing and Managing Stress

Even in the absence of a psychiatric diagnosis, many people with IBD and IBS report that stress makes their symptoms worse. Relaxation techniques and mind/body exercises, such as yoga, tai chi, and meditation may help, particularly when used with other forms of treatment.

Other stress management options include relaxation training, such as meditation, guided imagery, or biofeedback.

To manage stress, it helps to identify sources of stress. One strategy is to write down what is causing you to feel stressed and organize the list into problems that you have some control over (e.g., cleaning the house, finishing a project at work) and problems that you cannot control (e.g., having a diagnosis of IBD or IBS). By doing this, patients can make adjustments in how they think about their stress, and change their behavior to be more adaptable to solvable versus unsolvable problems.

A stress journal may help identify the regular stressors in life and the ways to deal with them. Over time, patterns and common themes will emerge, as well as strategies to successfully cope with them. Below are additional strategies to help manage stress:

- **Talk to a trusted friend or make an appointment with a therapist:** Expressing what you are going through can be very helpful, even if there is nothing you can do to change the stressful situation. This can also include spending time with positive people who enhance your life, and thus reduce stress. A strong support system will buffer you from the negative effects of stress.
- **Nurture yourself:** If you regularly make time for fun and relaxation, you will be in a better place to handle life's stressors when they inevitably come. Such activities can include hobbies, satisfying social interactions, yoga, and meditation.
- **Engage in physical activity:** Studies show that physical activity plays a key role in reducing and preventing the effects of stress. Make time for at least 30 minutes of exercise, five times per week.
- **Eat a healthy diet:** Well-nourished bodies are better prepared to cope with stress, so be mindful of what you eat. Start your day with breakfast, and keep your energy up and your mind clear with balanced, nutritious meals throughout the day.
- **Get enough sleep:** Adequate sleep fuels your mind, as well as your body. Feeling tired will increase your stress because it may cause you to think irrationally. Utilizing various sleep techniques (e.g., waking up at the same time each morning or going to bed only when sleepy) can be very effective for insomnia.

If you have questions, call the Irwin M. and Suzanne R. Rosenthal IBD Resource Center (IBD Help Center) at 888-MY-GUT-PAIN (888-694-8872).

Frequently Asked Questions

Is it possible to have both IBD and IBS?

Yes, it is possible to be diagnosed with both conditions. Some symptoms are unique to IBD or IBS, while some are shared.

Can children get IBD or IBS?

IBD is most commonly diagnosed between the ages of 15 and 35, although it is possible to have the disease at a younger or older age. It is estimated that 10%–15% of older children and adolescents suffer from IBS.[9] In a subset of these youth, the symptoms are often linked to school- or social-related anxiety and can often resolve spontaneously or after psychological treatment.

Can IBS turn into Crohn's disease or another more serious condition?

If IBD has been ruled out as a cause of symptoms in patients suspected of having IBS, there is no evidence that IBS progresses to any other disease or causes any complications outside of the regular symptoms.

How can I tell if the problem I have is IBS or something else?

A careful medical history and physical examination by a gastroenterologist or other physician are essential to rule out more serious disorders. Depending on your physician's assessment, additional tests may be considered and can include blood tests, stool tests, visual inspection of the inside of the colon with flexible sigmoidoscopy or colonoscopy, and x-ray studies. Fever, anemia, rectal bleeding, and unexplained weight loss are not symptoms of IBS, and may need to be evaluated by your physician.

How long does the treatment take to relieve symptoms of IBS?

Relief of IBS symptoms is often a slow process. It may take months for definite improvement to be achieved. The tendency for the intestine to respond to stress will always be present. Managing your stress, eating a proper diet, and use of appropriate medications if possible, can greatly improve or in some cases, eliminate IBS.

How can I find additional information?

Patients with IBD can visit the Crohn's & Colitis Foundation's website at *www.crohnscolitisfoundation.org* for information and resources.

Patients with IBS can visit the International Foundation for Functional Gastrointestinal Disorders' website at *www.aboutibs.org* for information and resources.

Credits

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The Crohn's & Colitis Foundation is the leading non-profit organization focused on both research and patient support for inflammatory bowel disease (IBD). The Foundation's mission is to cure Crohn's disease and ulcerative colitis, and to improve the quality of life for the more than 3 million Americans living with IBD. Its work is dramatically accelerating the research process through our database and investment initiatives; it also provides extensive educational resources for patients and their families, medical professionals, and the public.

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