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# Introduction to inflammatory bowel disease

Learning how to manage your inflammatory bowel disease (IBD) might feel like a challenge, especially at first. But understanding your diagnosis can help you take control of your health. There is no cure for IBD. But a number of treatment options can help you manage your symptoms. This booklet provides information about IBD, what to expect after diagnosis and how to manage symptoms to live a full and active life.

IBD refers to chronic, or long-term, conditions that affect the gastrointestinal (GI) tract. These conditions can get better and worse over time. The GI tract is the part of the body that digests food. It also absorbs nutrients and expels waste. The GI tract includes the mouth, esophagus, stomach, small intestine, large intestine and anus.

The two types of IBD are Crohn's disease and ulcerative colitis. Both cause inflammation in the GI tract. Crohn's disease can affect any part of the GI tract and all layers of the intestines. Ulcerative colitis affects just the lining of the large intestine, which includes the colon and rectum.<sup>1,2</sup>

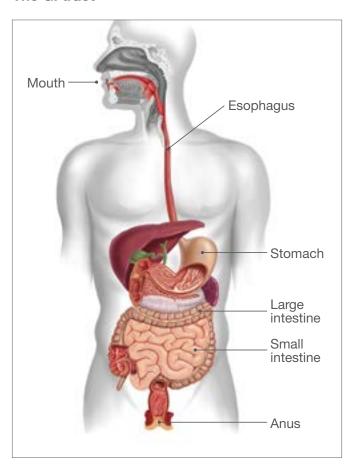
## Who develops IBD?

In the United States, an estimated 1.6 million people have IBD. It can occur at any age, but people are usually diagnosed between the ages of 15 and 35. Both men and women can get IBD.<sup>3</sup>

IBD can occur in any person. It is more common in those who<sup>4</sup>:

- Have a family history of IBD
- Are Caucasian or Jewish of European descent
- Live in cities
- Live in developed countries

#### The GI tract



Introduction to inflammatory bowel disease (cont.)

#### **Causes**

The exact cause of IBD is not known. Experts believe it is caused by a number of factors, including<sup>3</sup>:

- Environment
- Genes, which decide inherited traits such as eye color
- Immune system problems

Normally, the immune system seeks out and attacks intruders, like bad bacteria or viruses that can cause illness. It also helps the body recover from sickness. But it does not always work properly. In people with IBD, the immune system mistakenly attacks harmless bacteria, food and other materials in the intestine. This can cause swelling in the GI tract.

## **Risk factors**

Risk factors for IBD include3:

- Antibiotics, which can affect levels of bacteria in the GI tract
- Appendectomy, or surgery to remove the appendix (risk factor for Crohn's disease)
- Cigarette smoking (risk factor for Crohn's disease)
- Family history
- Nonsteroidal anti-inflammatory drugs (NSAIDs) such as aspirin, ibuprofen or naproxen

Some studies suggest that diet, use of hormones and certain medications, stress and low levels of vitamin D might raise the risk of IBD.<sup>5,6</sup>

## **Diagnosis**

Your doctor likely diagnosed your IBD based on your symptoms, a physical exam and tests.<sup>7,8</sup> Diagnostic tests for IBD often include:

- Blood tests
- X-rays or other body scans
- Analysis of stool samples for bleeding or infection

Your doctor probably also viewed your GI tract using procedures such as<sup>7,8</sup>:

- Biopsy. A small piece of tissue is removed from the affected part of the GI tract for testing.
- Colonoscopy. A thin, flexible tube with a camera is used to view the entire colon.
- Flexible sigmoidoscopy. A thin, flexible tube with a camera is used to view the end of the colon.
- Upper endoscopy. A thin, flexible tube with a camera is used to view the upper portion of the digestive system, which includes the stomach and small intestine.

# What you need to know about Crohn's disease and ulcerative colitis



Understanding your diagnosis can help you better manage your health. Crohn's disease and ulcerative colitis are long-term conditions with no cure. But, starting treatment soon after diagnosis can help manage your symptoms so you can live a full and active life.<sup>3</sup>

#### Crohn's disease

## Who develops Crohn's disease?

As many as 780,000 Americans have Crohn's disease. It affects men and women equally. It is more often diagnosed among people ages 15 to 35.3

What you need to know about Crohn's disease and ulcerative colitis (cont.)

### Signs and symptoms

Crohn's disease is a long-term condition. It can get better and worse over time. While there is no cure, medication can control symptoms. Crohn's disease is active when symptoms are present. This is also called a flare. Remission is when symptoms stop. Symptoms of Crohn's disease can differ for each patient. Symptoms can range from mild to severe.

Common GI symptoms include1:

- Abdominal pain and cramps
- Constipation
- Diarrhea
- Feeling of incomplete bowel movements
- Rectal bleeding
- Urgent need to have a bowel movement

Other symptoms of Crohn's disease might also include<sup>1</sup>:

- Fatigue (tiredness)
- Fever
- Menstrual changes
- Night sweats
- Poor appetite
- Weight loss

#### **Ulcerative colitis**

## Who develops ulcerative colitis?

About 907,000 people in the United States have ulcerative colitis. Like Crohn's disease, it is more often diagnosed among people ages 15 to 35. It is more common in men than in women. Men are also more likely than women to be diagnosed with ulcerative colitis in their 50s and 60s.<sup>3</sup>

## Signs and symptoms

Like Crohn's disease, ulcerative colitis is a longterm condition. It can get better and worse over time. While there is no cure, medication can control symptoms. Symptoms of ulcerative colitis can include<sup>2</sup>:

- Abdominal pain and cramps
- Delayed growth in children
- Diarrhea
- Fatique
- Loose, bloody stools
- Poor appetite
- Urgent need to have a bowel movement
- Weight loss

# **Living with IBD**

There is no cure for IBD. But there are many ways to treat the symptoms. A doctor who specializes in GI problems, known as a gastroenterologist, can help direct your treatment.

The main goals of IBD treatment include9:

- Decreasing inflammation in the GI tract
- Improving quality of life
- Inducing remission, or stopping symptoms
- Maintaining remission, or preventing flares
- Reducing risk for complications in the GI tract or other parts of the body

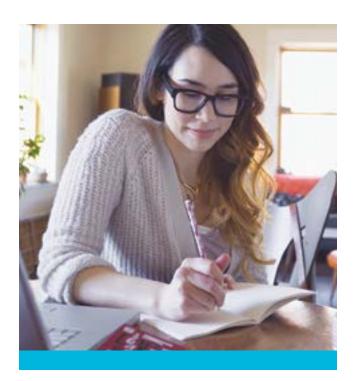
Work with your doctor to find the best treatment for you. Your doctor might ask you to keep track of symptoms in a diary. For example, you might log how many and what type of bowel movements you have each day. Or, you might track your weight.

Treatment can control symptoms. But there will be times when symptoms return. These flares can be triggered by many things, including<sup>10</sup>:

- Certain foods
- Certain medications. like NSAIDs or antibiotics
- Cigarette smoking (for patients with Crohn's disease)
- Not taking medication as prescribed
- Stress

IBD can also cause other complications. These can occur in the GI tract or other parts of the body. Complications might include<sup>3</sup>:

- Abscess, or collection of pus in the GI tract
- Anemia that can cause fatigue
- Arthritis, or swollen joints
- Bone problems, like weak bones
- Colon cancer
- Eye problems, like swelling or irritation



- Fistulas, or abnormal tunnels in the intestines caused by ulcers
- Kidnev stones
- Liver disease
- Malabsorption and malnutrition that could cause vitamin or mineral deficiencies or affect growth in children
- Mouth sores
- Narrowed intestine that can cause blockage
- Perforated bowel, or holes in the intestinal lining
- Skin problems, like sores, ulcers or rashes
- Toxic megacolon, a dangerous and rapid widening of the colon
- Ulcers in the GI tract

Some complications might require urgent care. Be prepared. Ask your doctor about IBD complications before they occur. Find out when you should seek immediate medical care.

## Staying on track with treatment

Medication can help manage IBD symptoms. The main types of drugs used to treat IBD are<sup>3</sup>:

- Aminosalicylates
- Antibiotics
- Biologic therapies
- Corticosteroids
- Immunomodulators

There is not one single treatment that works for all people with IBD. Treatments are prescribed specifically for each individual. Work with your doctor to find a treatment that works best for you. It might change over time. Your doctor can adjust your prescribed treatment as needed.

No matter what medications are chosen for your treatment, you should take them exactly as prescribed by your doctor—at the right times and at the correct doses. Do not stop taking your medications without asking your doctor first. If your treatment routine starts to feel too hard, ask your doctor or pharmacist for help managing your medications. Staying on track with treatment is key to managing symptoms and improving your health.

## Lifestyle changes

Along with medication, lifestyle changes can help you manage IBD.<sup>11,12</sup> Some lifestyle changes might be small changes to your daily routine. For example, you might start to locate restrooms before an outing. Or, you might start bringing extra underwear and toilet paper wherever you go.

Other lifestyle changes might be larger goals. For example, smoking can make Crohn's disease worse.<sup>3</sup> It can also cause a host of other health problems. Quitting smoking can lessen GI symptoms and improve your health. If you smoke, talk to your doctor about ways to stop.

Habits that help you stay active, manage stress and eat right can help you feel better each day. These changes can also help improve IBD symptoms.



## Physical activity

Staying active is good for your health. It can help you keep a healthy weight. This can reduce strain on your joints. It might also help with joint problems caused by IBD. Exercise is also a good way to relieve any stress that could make IBD symptoms worse. Many types of activity might be useful, including:

- Aerobic activity, like walking or swimming
- Strengthening exercises, like weight training
- Stretching and range-of-motion routines, like yoga or tai chi

Talk to your doctor about what types of exercise might be right for you.

#### **Emotional health**

Sometimes, living with IBD can feel difficult. You might feel angry, anxious or embarrassed. This is normal. But it might make things feel more stressful than usual. Stress can make it harder to deal with the demands of living with IBD. It might also trigger symptoms. Take steps to control your stress:

- Find out what causes your stress. Try keeping a journal or diary to pinpoint the sources.
- Try to avoid things that cause you stress.
- Find positive ways to cope. Make time for things you enjoy. Relax in a guiet space each day.

You might also feel sad or depressed about your condition. This is normal, too. These feelings might be worse when you are first diagnosed, in the early stages of the disease or during a flare. It's important to know the symptoms of depression and when to get help. Symptoms of depression can include<sup>13</sup>:

- Aches and pains that don't go away with treatment
- Being tired or lacking energy
- Eating too much or too little
- Feeling hopeless or negative
- Feeling restless or irritable
- · Feeling sad, empty or anxious most of the time
- Feeling worthless, helpless or guilty
- Having a hard time concentrating or making decisions
- Losing interest or pleasure in things you used to enjoy
- Sleeping too much or too little
- Thinking about death or suicide

If you have thoughts of suicide, call 911 or your local emergency services number. You can also call a doctor, mental health professional, crisis center or hotline for help.

Children and teens might express depression in additional ways, including<sup>14</sup>:

- Extreme sensitivity to failure
- Frequent complaints of headaches or stomachaches
- Increased anger
- Low energy or constant boredom
- Low self-esteem
- Poor performance or attendance at school
- Social isolation
- Talk of running away from home

Talk with your doctor or your child's doctor about depression. Your doctor might suggest counseling, an antidepressant medication or both. You might also want to seek support from friends and family. Or, consider joining a support group or online message board where you can talk to others with IBD.

## **Proper nutrition**

Poor nutrition is common in patients with IBD. This is especially true in Crohn's disease. This is because the intestines are less able to digest and absorb nutrients from food. IBD symptoms can also make it hard to eat well all the time. But proper nutrition is key for good health and normal growth. This is especially vital for children with IBD.<sup>15</sup> Talk with your doctor about how to improve your nutrition.

Your doctor might refer you to a dietitian. Together, you can build a diet that works for you. In general, it is most important to eat a well-balanced diet and drink enough fluids to stay hydrated. There is no single list of foods to eat or avoid. Certain foods might bother you but not other people with IBD. This can change over time.

You might also need to eat differently at certain times. For example, it might be best to eat smaller meals more frequently during flares. Five small meals (fist-sized portions) every three or four hours is easier on your digestive system than three large meals.<sup>12</sup>

Try keeping a food diary to track what you eat. You can also log symptoms and when they occur. Your notes might help you see which foods or meal times cause symptoms. Your log can also help your doctor or dietitian see if you are getting enough nutrients from your diet.

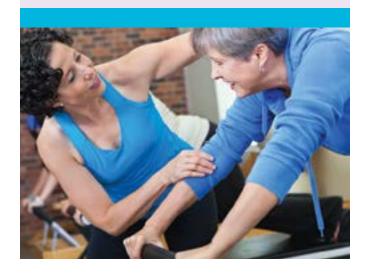
Some people with Crohn's disease have a narrowed part of the small intestine. For these people, a low-fiber with low-residue diet might help reduce symptoms. This diet avoids certain foods—like raw produce, nuts and seeds—that leave undigested material to pass through the intestines. This can reduce the number and size of stools. It is typically only used for a short time, until symptoms improve. Ask your doctor if this diet might help you.

#### **Bone health**

Steroids are one type of medication used to treat IBD. If used for a long time, they can cause osteoporosis, or weak bones.<sup>3</sup> This is true in women and men. Keep track of your bone health if you are taking steroids. Your doctor might want you to take a bone density test. This test looks at the strength of your bones. It can also assess your risk of breaking a bone. You can take other steps to help prevent weak bones<sup>16</sup>:

- Get enough calcium and vitamin D in your diet. Talk to your doctor about the right amount and how to reach that level.
- Do not smoke cigarettes.
- Engage in regular physical activity, as directed by your doctor.
- Limit or avoid alcohol.

In children, long-term steroid treatment can also delay growth. Children are sometimes treated with steroids every other day to reduce this effect.<sup>17</sup> Ask your child's doctor about protecting your child's bones.



## **Surgery**

Even with medication and lifestyle changes, some people will need surgery to control IBD symptoms. About 70% of people with Crohn's disease will

need surgery. Among those with ulcerative colitis, up to one-third will need surgery.<sup>3</sup> Table 3 lists common surgical procedures for IBD.

Table 3. Surgical procedures for IBD 4,18

Procedure	Description
Crohn's disease	
Colectomy/proctocolectomy with ileostomy	Colectomy removes all or part of the colon
	<ul> <li>Proctocolectomy removes the colon and rectum</li> </ul>
	<ul> <li>Ileostomy creates an opening through the abdomen that allows waste to empty out of the body into an attached pouch</li> </ul>
Fistula or abscess repair	Fixes abnormal connections between different parts of the GI tract
	Removes abscesses
Resection	Removes affected portions of the intestine and reconnects healthy sections of intestine
Strictureplasty	Widens narrowed parts of intestine
Ulcerative colitis	
Proctocolectomy with ileostomy	Removes the colon and rectum and creates an opening through the abdomen that allows waste to empty out of the body into an attached pouch
Restorative proctocolectomy or ileal pouch anal anastomosis	Removes the colon and rectum and creates a path for waste to empty through the anus

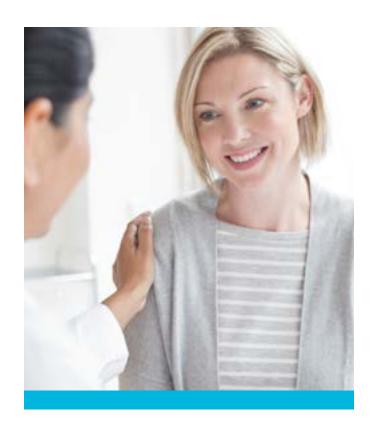
## **Pregnancy**

Active IBD and past pelvic surgery to treat IBD might affect a woman's chances of getting pregnant. The risk of complications rises when IBD is active during conception and pregnancy. Ideally, women with IBD should be in remission for at least six months before getting pregnant.<sup>3</sup>

Some medications for IBD can affect fertility in both men and women. Certain IBD medications are not safe for pregnancy. Tell your doctor if you are planning to get pregnant or if you get pregnant while taking IBD medications. Your doctor might need to change your medication. Women with IBD who plan to breastfeed should also ask a doctor or pharmacist about which medications are safe to take while nursing.<sup>19</sup>

## **Ongoing care**

Work with your doctor to keep track of your progress and your symptoms. You can discuss how well your medication and lifestyle changes are working. Your doctor can also monitor side effects and adjust your treatment as needed. Each visit can help you stay on track with treatment and better manage your IBD.



We've provided this information because we believe that the more you know about IBD, the better prepared you will be to manage it. In addition, the AllianceRx Walgreens Prime specialty pharmacy Care Team is here to provide you with dependable, personalized support to help you manage medication side effects and stay on track with your prescribed therapy. We look forward to being a member of your healthcare team and helping you get the best results from your treatment.

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#### Resources

You might find it helpful to contact these organizations for additional support and resources.\*

#### **American College of Gastroenterology (ACG)**

www.patients.gi.org/topics/inflammatory-bowel-disease 301-263-9000 www.facebook.com/AmCollegeGastro/ @AmCollegeGastro

The ACG is a clinical organization of digestive health specialists. The ACG website features information on GI conditions, including IBD, in both English and Spanish. The site also provides resources for finding a gastroenterologist and other patient support.

## **American Society of Colon and Rectal Surgeons (ASCRS)**

www.fascrs.org/patients 847-290-9184 www.facebook.com/fascrs @fascrs\_updates

The ASCRS is a group of doctors who specialize in treating patients with conditions that affect the colon, rectum and anus. The group's website provides disease information, a patient resource library and a directory of surgeons.

#### Crohn's & Colitis Foundation of America (CCFA)

www.ccfa.org 800-932-2423 www.facebook.com/ccfafb @CrohnsColitisFn

The CCFA is a nonprofit, volunteer organization devoted to finding a cure for Crohn's disease and ulcerative colitis.

The CCFA website includes information on treatment, nutrition, surgery options and doctors. Brochures, webcasts, information on clinical trials and links to other organizations are also available. The companion website, www.ibdetermined.org, provides links to more information and ways to connect with others through social media and a smartphone app.

#### **Inflammatory Bowel Disease Support Group**

www.ibdsupport.org www.facebook.com/ibdsupport @IBDsupport

The IBD Support Group is an online community that hosts discussion forums for people with Crohn's disease and ulcerative colitis. The website also features educational materials and links to research and news about IBD.

#### MedlinePlus

www.nlm.nih.gov/medlineplus/crohnsdisease.html (Crohn's disease) www.nlm.nih.gov/medlineplus/ulcerativecolitis.html (ulcerative colitis) www.facebook.com/mplus.gov/ @medlineplus

MedlinePlus is a comprehensive online health resource from the U.S. National Library of Medicine. Its website features educational materials on diagnosis, treatment and support for IBD. It also features links to the latest news and clinical trials on IBD and other GI conditions.

<sup>\*</sup>The referenced organizations are provided for informational purposes only. They are not affiliated with, and have not provided funding to AllianceRx Walgreens Prime for this booklet. AllianceRx Walgreens Prime does not endorse or recommend any specific organization.

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