

# Inflammatory Bowel Disease

**Inflammatory bowel disease (IBD)** is a disease that causes chronic inflammation of the gastrointestinal (GI) tract.

There are 2 major types of IBD: **ulcerative colitis** and **Crohn disease**. Ulcerative colitis affects only the colon (large intestine) but Crohn disease can affect any part of the GI tract, most often the end of the small intestine and beginning of the colon.

## Who Gets IBD?

The cause of IBD is unknown, but 4 factors are thought to play a role: genetics, the environment, intestinal bacteria, and an abnormal immune response in the gut. Inflammatory bowel disease is most often diagnosed in people between ages 15 and 30 years.

## Symptoms of IBD

Inflammatory bowel disease symptoms can range from very mild to very severe. They include diarrhea, blood in the stool, abdominal pain, fever, fatigue, and weight loss.

Some symptoms of IBD result from inflammation of parts of the body outside of the GI tract. These include joint pain/arthritis, eye/vision problems, certain types of rashes, and liver disease.

Often, symptoms can be stable and then suddenly worsen during a **flare**, which can require extra treatment. Flares can be very dangerous, even life-threatening, if untreated because they may lead to severe infection, bleeding, or bowel perforation.

## Diagnosis

Inflammatory bowel disease is diagnosed by a combination of a careful patient history, imaging tests such as radiography or computed tomography scans, and endoscopic evaluation with a camera inside the GI tract. Common infections that can cause diarrhea should be ruled out by stool and/or blood tests. No single blood test is diagnostic of IBD, but some blood test abnormalities seen in IBD include anemia, elevated inflammatory markers, electrolyte abnormalities due to diarrhea, low albumin due to both inflammation and poor absorption of nutrients, and vitamin deficiencies (in Crohn disease) due to poor absorption of nutrients.

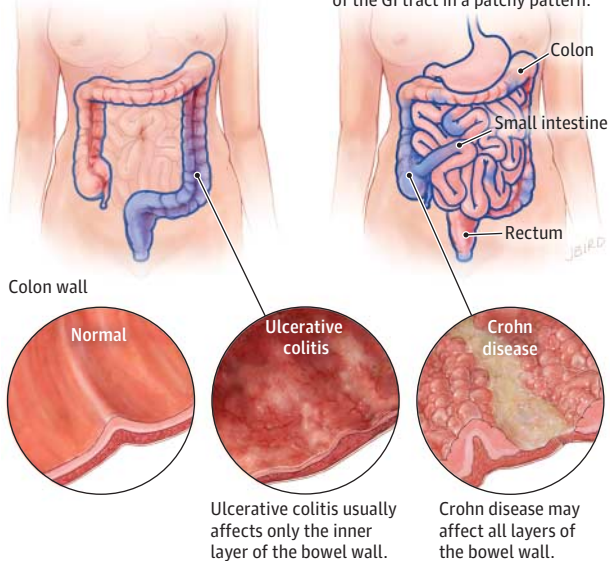
Endoscopic evaluation can include **upper endoscopy**, **colonoscopy**, or both, depending on where the symptoms are located and whether ulcerative colitis or Crohn disease is suspected. During this procedure, biopsies of the GI tract are taken, which often confirm the diagnosis.

## Treatment

Treatment of IBD depends on how severe the disease is. Mild disease is treated with anti-inflammatory medications, which can be taken either by mouth or as suppositories/enemas. More severe

Ulcerative colitis typically begins in the rectum and may extend continuously to involve the entire colon.

Crohn disease most commonly involves the end of the small intestine and beginning of the colon and may affect any part of the GI tract in a patchy pattern.



disease is treated with immunomodulator or immunosuppressant medications (often the same as those used for other autoimmune diseases). These can be taken by mouth, by injection under the skin, or by intravenous infusion. Flares often require steroids as extra treatment. Patients with severe disease who do not get better with medications may require surgery.

People with IBD that involves the colon are at increased risk of colon cancer. Therefore, they need to have routine colonoscopies throughout their lives.

### FOR MORE INFORMATION

- Centers for Disease Control and Prevention  
[www.cdc.gov/ibd](http://www.cdc.gov/ibd)
- Crohn's and Colitis Foundation of America  
[ccfa.org](http://ccfa.org)

**+** To find this and previous JAMA Patient Pages, go to the Patient Page link on JAMA's website at [www.jama.com](http://www.jama.com). Many are available in English and Spanish.

**Author:** Jill Jin, MD, MPH

**Sources:** Centers for Disease Control and Prevention

Levine JS, Burakoff R. Inflammatory bowel disease: medical considerations. In: Blumberg RS, Burakoff R, eds. *Current Diagnosis & Treatment: Gastroenterology, Hepatology, & Endoscopy*. 2nd ed. New York, NY: McGraw-Hill; 2012.

The JAMA Patient Page is a public service of JAMA. The information and recommendations appearing on this page are appropriate in most instances, but they are not a substitute for medical diagnosis. For specific information concerning your personal medical condition, JAMA suggests that you consult your physician. This page may be photocopied noncommercially by physicians and other health care professionals to share with patients. To purchase bulk reprints, call 312/464-0776.