



### Crohn's Disease

Crohn's disease is an ongoing disorder that causes inflammation of the digestive tract, also referred to as the gastrointestinal (GI) tract. Crohn's disease can affect any area of the GI tract, from the mouth to the anus, but it most commonly affects the lower part of the small intestine, called the ileum. The swelling extends deep into the lining of the affected organ. The swelling can cause pain and can make the intestines empty frequently, resulting in diarrhea.

Crohn's disease is an inflammatory bowel disease, the general name for diseases that cause swelling in the intestines. Because the symptoms of Crohn's disease are similar to other intestinal disorders, such as irritable bowel syndrome and ulcerative colitis, it can be difficult to diagnose. Ulcerative colitis causes inflammation and ulcers in the top layer of the lining of the large intestine. In Crohn's disease, all layers of the intestine may be involved, and normal healthy bowel can be found between sections of diseased bowel.

Crohn's disease affects men and women equally and seems to run in some families. About 20 percent of people with Crohn's disease have a blood relative with some form of inflammatory bowel disease, most often a brother or sister and sometimes a parent or child. Crohn's disease can occur in people of all age groups, but it is more often diagnosed in people between the ages of 20 and 30. People of Jewish heritage have an increased risk of developing Crohn's disease, and African Americans are at decreased risk for developing Crohn's disease. Crohn's disease may also be called ileitis or enteritis.

#### What causes Crohn's disease?

Several theories exist about what causes Crohn's disease, but none have been proven. The human immune system is made from cells and different proteins that protect people from infection. The most popular theory is that the body's immune system reacts abnormally in people with Crohn's disease, mistaking bacteria, foods, and other substances for being foreign. The immune system's response is to attack these "invaders." During this process, white blood cells accumulate in the lining of the intestines, producing chronic inflammation, which leads to ulcerations and bowel injury.

#### What are the symptoms?

The most common symptoms of Crohn's disease are abdominal pain, often in the lower right area, and diarrhea. Rectal bleeding, weight loss, arthritis, skin problems, and fever may also occur. Bleeding may be serious and persistent, leading to anemia. Children with Crohn's disease may suffer delayed development and stunted growth. The range and severity of symptoms varies.

#### How is Crohn's disease diagnosed?

A thorough physical exam and a series of tests may be required to diagnose Crohn's disease.

Blood tests may be done to check for anemia, which could indicate bleeding in the intestines. Blood tests may also uncover a high white blood cell count, which is a sign of inflammation somewhere in the body. By testing a stool sample, the doctor can tell if there is bleeding or infection in the intestines.

The doctor may do an upper GI series to look at the small intestine. The doctor may also do a visual exam of the colon by performing either a sigmoidoscopy or a colonoscopy. The doctor will be able to see any inflammation or bleeding during either of these exams, although a colonoscopy is usually a better test because the doctor can see the entire large intestine. The doctor may also do a biopsy, which involves taking a sample of tissue from the lining of the intestine to view with a microscope.

#### What are the complications of Crohn's disease?

The most common complication is blockage of the intestine. Blockage occurs because the disease tends to thicken the intestinal wall with swelling and scar tissue, narrowing the passage. Crohn's disease may also cause sores, or ulcers, that tunnel through the affected area into surrounding tissues, such as the bladder, vagina, or skin. The areas around the anus and rectum are often involved. The tunnels, called fistulas, are a common complication and often become infected. Sometimes fistulas can be treated with medicine, but in some cases they may require surgery. In addition to fistulas, small tears called fissures may develop in the lining of the mucus membrane of the anus.



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Nutritional complications are common in Crohn's disease. Deficiencies of proteins, calories, and vitamins are well documented. These deficiencies may be caused by inadequate dietary intake, intestinal loss of protein, or poor absorption, also referred to as malabsorption.

Other complications associated with Crohn's disease include arthritis, skin problems, inflammation in the eyes or mouth, kidney stones, gallstones, or other diseases of the liver and biliary system. Some of these problems resolve during treatment for disease in the digestive system, but some must be treated separately.

### **What is the treatment for Crohn's disease?**

Treatment may include drugs, nutrition supplements, surgery, or a combination of these options. The goals of treatment are to control inflammation, correct nutritional deficiencies, and relieve symptoms like abdominal pain, diarrhea, and rectal bleeding. At this time, treatment can help control the disease by lowering the number of times a person experiences a recurrence, but there is no cure.

Treatment for Crohn's disease depends on the location and severity of disease, complications, and the person's response to previous medical treatments when treated for reoccurring symptoms.

Some people have long periods of remission, sometimes years, when they are free of symptoms. However, the disease usually recurs at various times over a person's lifetime. This changing pattern of the disease means one cannot always tell when a treatment has helped. Predicting when a remission may occur or when symptoms will return is not possible.

Someone with Crohn's disease may need medical care for a long time, with regular doctor visits to monitor the condition.