CONDITION

Inflammatory bowel disease/crohn's disease

Crohn's disease is a long-term condition that causes inflammation anywhere along the digestive tract.

WHAT IT IS
Chronic inflammatory bowel disease

BODY SYSTEM
Digestive system

MAIN SYMPTOMS
Diarrhoea, abdominal pain, weight loss, fatigue

WHAT CAUSES IT
Abnormal immune response, genes, and environmental factors

HOW IT IS DIAGNOSED
Colonoscopy with biopsies, supported by scans and stool tests

MAIN TREATMENT
Immune-targeting medicines, nutrition support, and sometimes surgery

CAN IT BE CURED?
No - treatment controls inflammation

IS IT AN EMERGENCY?
Sometimes - severe pain, heavy bleeding, or dehydration

LONG-TERM OUTLOOK
Flare-ups and remission; most people need long-term care

Overview

Inflammatory bowel disease, or IBD, is a group of conditions that cause long-lasting inflammation in the digestive tract. The two main types are Crohn's disease and ulcerative colitis. This article focuses on Crohn's disease.

Crohn's disease can affect any part of the digestive tract, from the mouth to the anus. It most often affects the end of the small intestine and the large intestine. Inflammation may extend through the full thickness of the bowel wall, with healthy areas between inflamed sections.

This differs from ulcerative colitis, which affects the large intestine and usually causes continuous inflammation of its inner lining.

Crohn's disease is a lifelong condition. Symptoms may become active during a flare-up , then

improve or disappear during remission . Treatment aims to control inflammation, relieve symptoms, heal the bowel, and reduce the risk of complications.

Crohn's disease is not the same as irritable bowel syndrome, or IBS. IBS can cause pain and changes in bowel habits, but it does not cause ongoing bowel inflammation or damage.

Symptoms

Symptoms depend on which part of the digestive tract is affected and how severe the inflammation is. They may develop gradually or begin more suddenly.

Common symptoms include:

Inflammation near the anus can cause painful cracks, swelling, abscesses, or drainage from a fistula. A fistula is an abnormal tunnel between the bowel and another part of the body, often the skin near the anus.

Children and teenagers may grow more slowly or enter puberty later than expected. Sometimes this is noticed before clear digestive symptoms appear.

Crohn's disease can also affect other parts of the body. Some people develop painful joints, mouth ulcers, eye inflammation, or tender skin changes. These problems may occur during a bowel flare, although some follow a separate course.

Symptoms alone cannot confirm Crohn's disease. Infections, coeliac disease, IBS, ulcerative colitis, and several other conditions can cause similar problems.

- Ongoing or recurring diarrhoea
- Cramping or pain in the abdomen
- Tiredness or low energy
- Reduced appetite and unplanned weight loss
- Blood or mucus in bowel movements
- Fever during active inflammation
- An urgent need to open the bowels

Causes and risk factors

The exact cause of Crohn's disease is not fully understood. It appears to develop when the immune system responds abnormally to bacteria and other organisms that normally live in the digestive tract. This response leads to ongoing inflammation in someone who is susceptible.

Genes play a role, but Crohn's disease is not passed down in a simple, predictable way. Having a close relative with IBD increases the likelihood, but most relatives of affected people do not develop it.

Environmental factors and the community of organisms in the bowel, called the gut microbiome, may also contribute. Research has not identified one food, infection, or personal behaviour that directly causes Crohn's disease.

Cigarette smoking increases the risk of developing Crohn's disease and is linked with a more difficult course after diagnosis. Smoking is different in ulcerative colitis, but starting or continuing smoking is not a safe treatment for either condition.

Stress can worsen how symptoms feel and may contribute to flare-ups, but it is not the underlying cause. There is also no evidence that Crohn's disease results from eating badly or from something you did.

Diagnosis

There is no single test that diagnoses every case. Assessment usually combines your symptoms, examination, laboratory tests, endoscopy, tissue samples, and imaging.

Blood tests can look for anaemia, inflammation, infection, or low levels of nutrients. Stool tests may check for infection and measure calprotectin, a protein that rises when the intestines are inflamed. These tests help show whether more investigation is needed, but they do not confirm Crohn's disease by themselves.

A colonoscopy is often central to diagnosis. A flexible camera is passed through the anus to examine the large intestine and the end of the small intestine. Small tissue samples called biopsies are taken and examined under a microscope.

MRI or CT scans can show parts of the small intestine that a colonoscopy cannot reach. They can also identify narrowing, abscesses, or fistulas. MRI avoids radiation and is often preferred when repeated imaging is likely.

Capsule endoscopy uses a swallowed camera to photograph the small bowel. It is suitable only in selected cases because the capsule can become stuck if the bowel is narrowed.

Diagnosis may take time when inflammation is mild or difficult to reach. Tests are also used to distinguish Crohn's disease from ulcerative colitis and to rule out infection.

Treatment and management

Treatment is based on where the inflammation is, how active it is, whether complications are present, and how previous treatments have worked. The plan may change over time.

Corticosteroids like prednisone or hydrocortisone can reduce inflammation during a flare. They are generally used for limited periods because long-term use can cause significant side effects. They are not intended to maintain remission.

Medicines that alter immune activity may be used to keep inflammation controlled. These include immunomodulators, biologic medicines, and targeted oral medicines. Biologics are manufactured proteins that block specific parts of the inflammatory process. Blood tests and infection screening may be needed before and during some treatments.

Medicines containing 5-aminosalicylate are useful in ulcerative colitis but have a limited role in Crohn's disease. Antibiotics like amoxicillin or doxycycline may be used for certain infections, abscesses, or complications around the anus, rather than as routine treatment for bowel inflammation.

Nutrition is an important part of care. A dietitian can help if pain, diarrhoea, narrowing of the bowel, or reduced appetite makes eating difficult. Some children and adults use a complete liquid nutrition treatment to bring active disease under control. Vitamin or mineral replacement may be needed when tests show a deficiency.

No single Crohn's diet works for everyone. During a flare, softer or lower-fibre foods may be easier for some people, especially if the bowel is narrowed. Restrictive diets can lead to malnutrition and are best considered with professional support.

Surgery may be needed to treat a blockage, abscess, fistula, severe bleeding, or disease that medicines have not controlled. Surgeons may remove a damaged section or widen a narrowed area. Surgery can provide lasting relief, but it does not cure Crohn's disease because inflammation can return elsewhere.

Regular monitoring may include symptom reviews, blood or stool tests, scans, or endoscopy. Monitoring matters even when you feel well because inflammation can sometimes continue without obvious symptoms.

Complications

Repeated inflammation can cause scar tissue and narrowing, called a stricture . A stricture may slow or block food and bowel contents, causing cramping, swelling, nausea, or vomiting.

Deep ulcers may form fistulas. An infected pocket called an abscess can develop and may require antibiotics, drainage, or surgery.

Poor absorption, reduced appetite, blood loss, and dietary restriction can lead to anaemia or low levels of iron, vitamin B12, vitamin D, and other nutrients. Children may have problems with growth. Bone thinning can result from inflammation, poor nutrition, or repeated corticosteroid treatment.

Long-standing Crohn's disease affecting the colon can increase the risk of bowel cancer. The level of risk is influenced by how much of the colon is involved, how long it has been inflamed, and other individual factors. Some people are offered regular surveillance colonoscopies.

Blood clots, liver or bile-duct problems, and inflammation of the eyes, skin, or joints can also occur. These complications do not affect everyone.

Prevention

There is no proven way to prevent Crohn's disease. It develops through a combination of immune, genetic, microbial, and environmental factors that cannot be fully controlled.

If you smoke, stopping can reduce the risk of flare-ups, complications, and surgery after diagnosis. Support and stop-smoking treatments can improve the chance of quitting successfully.

Taking agreed maintenance treatment and attending monitoring appointments can help prevent relapses and detect inflammation early. Avoiding non-steroidal anti-inflammatory drugs, such as ibuprofen, may be advised if they worsen your symptoms. Do not stop prescribed medicines without discussing the change with your healthcare team.

Vaccination, nutrition checks, cancer surveillance when appropriate, and attention to bone health help prevent some treatment-related or long-term complications. Vaccine planning is especially important before or during medicines that suppress immune activity.

Living with it and what to expect

Crohn's disease usually follows a pattern of flare-ups and remission over months and years. Some people have long periods with few symptoms. Others have persistent inflammation or more frequent relapses. It is not possible to predict an exact course from symptoms at diagnosis.

Treatment often continues during remission to prevent inflammation from returning. Feeling well does not always mean the bowel has healed, so tests may remain part of routine follow-up.

You may learn which foods are easier to tolerate, but triggers differ between people and can

change during a flare. A food and symptom record may help identify patterns without automatically removing entire food groups. Access to toilets, fatigue, travel, work, school, relationships, and body image can all require practical planning.

Crohn's disease can affect emotional health as well as the bowel. Anxiety about symptoms or toilets is understandable. Psychological support, workplace or school adjustments, and contact with an IBD nurse or patient support organisation may help.

Pregnancy is possible for most people with Crohn's disease. Good control of inflammation before and during pregnancy is important. Some medicines need advance review, while stopping effective treatment without advice can also create risks.

With appropriate treatment and monitoring, many people study, work, exercise, travel, and raise families. Some need hospital care or surgery, and treatment may need to change if inflammation returns.

When to get medical help

Arrange routine medical review if diarrhoea, abdominal pain, tiredness, bleeding, weight loss, or symptoms around the anus are new, persistent, or becoming more frequent. If you already have Crohn's disease, contact your care team when symptoms suggest a flare or medicine side effects are troubling you.

Seek urgent medical help for:

Call emergency services for collapse, confusion, severe breathing difficulty, vomiting blood, or bleeding that is heavy enough to cause weakness or fainting.

- Severe or steadily worsening abdominal pain
- A swollen abdomen with repeated vomiting or inability to pass stool or gas
- Heavy or continuing rectal bleeding
- High fever with abdominal or anal pain
- Signs of dehydration, such as faintness or very little urine
- A painful, hot swelling near the anus, especially with fever

Common questions

Is Crohn's disease contagious?

No. You cannot catch Crohn's disease from another person through food, touch, sex, or shared

facilities.

Can Crohn's disease be cured?

There is currently no cure. Medicines can bring inflammation under control, and surgery can remove badly affected bowel, but disease may return. Many people have long periods of remission with treatment.

What is the difference between Crohn's disease and ulcerative colitis?

Crohn's disease can affect any part of the digestive tract and may involve the full bowel wall. Ulcerative colitis affects the large intestine and begins in the rectum, with inflammation mainly in the inner lining.

What foods should I avoid with Crohn's disease?

There is no universal list. Foods that worsen symptoms differ between people and may change during a flare. If you are losing weight or considering a restrictive diet, a dietitian can help you maintain adequate nutrition.

Will I need surgery?

Not everyone needs surgery. It may become necessary for a blockage, fistula, abscess, severe bleeding, or inflammation that does not respond adequately to medicines. Surgery treats damaged areas but does not cure the underlying condition.

Does stress cause Crohn's disease?

No. Stress does not cause Crohn's disease, but it can worsen digestive symptoms and make living with a flare more difficult. Stress management can support wellbeing alongside medical treatment.

Sources

- National Institute of Diabetes and Digestive and Kidney Diseases. Definition and Facts for Crohn's Disease
- National Institute of Diabetes and Digestive and Kidney Diseases. Diagnosis of Crohn's Disease
- National Institute of Diabetes and Digestive and Kidney Diseases. Treatment for Crohn's Disease
- National Institute for Health and Care Excellence. Crohn's disease: management, NICE guideline NG129 , 2019

- Torres J, Mehandru S, Colombel JF, Peyrin-Biroulet L. "Crohn's disease." The Lancet . 2017;389(10080):1741-1755
- Lichtenstein GR, Loftus EV Jr, Isaacs KL, Regueiro MD, Gerson LB, Sands BE. "ACG Clinical Guideline: Management of Crohn's Disease in Adults." American Journal of Gastroenterology . 2018;113(4):481-517