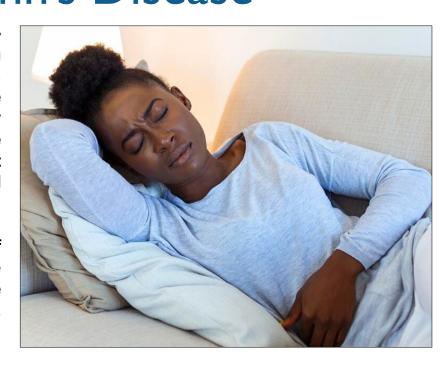
Crohn's Disease

Crohn's disease is a long-term condition in which the body's immune system mistakenly attacks the digestive system, causing inflammation and irritation in the gut. It is one of the common inflammatory bowel diseases (conditions that irritate the digestive tract). Although it can affect people at any age, it is often diagnosed between the ages of 15 and 35.

Crohn's disease can affect any part of the digestive tract from the mouth to the anus, but it most commonly affects the small intestine and large intestine (colon).



Signs and symptoms of Crohn's disease

The signs and symptoms of Crohn's can start slowly over time or appear suddenly. They can vary between people and depend on where the inflammation occurs in the digestive tract and how severe it is. They commonly include:

- Nausea and vomiting.
- Diarrhoea that lasts more than seven days.
- Loss of appetite and unintentional weight loss.
- Abdominal pain or cramps.
- Bloody stool and rectal bleeding.
- Mouth ulcers or pain in the mouth or gums.
- Fever and fatigue (tiredness that does not improve with rest).
- Abscesses or infections around the anal canal.
- Feeling bloated and gassy.

Crohn's disease can also cause symptoms beyond the digestive tract because it can affect the immune system, leading to inflammation in other parts of the body. This can result in conditions such as:

- Arthritis or joint pain.
- Rashes.
- Eye inflammation, such as uveitis (affects the uvea, the middle layer of the eye) and episcleritis (inflammation of the tissue layer between the conjunctiva and the sclera of the eye).
- Kidney stones.
- Osteoporosis (loss of bone mass).
- Skin tags (usually around the anus).
- · Inflammation in the bile ducts.
- Iron deficiency (anaemia).

Crohn's disease in children can cause growth delays or failure to grow properly.

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Types of Crohn's disease

Crohn's disease is classified according to the area of the digestive tract that is affected, and the different types are:

- Ileocolitis: Inflammation in the lower small intestine (ileum) and part of the large intestine (colon). Ileocolitis is the most common type of Crohn's disease.
- Colitis: Inflammation only in the lining of the large intestine.
- **Ileitis:** Swelling and inflammation of the small intestine (ileum).
- Gastroduodenal: Inflammation and irritation that affects the stomach and the beginning of the small intestine (the duodenum).
- **Jejunitis:** Patchy areas of inflammation in the upper half of the small intestine (the jejunum).
- Perianal disease: A portion of people have inflammation around the anus, which can cause fistulas (an abnormal connection between two hollow spaces or organs) and abscesses.

Causes and risk factors of Crohn's disease

The exact cause of Crohn's disease is unknown, but it is thought that the following factors may play a part in its development:

- Abnormal Immune reaction: Crohn's disease may be caused by the immune system mistakenly attacking bacteria in the intestines. This causes inflammation in the digestive tract. Factors like the environment, genes, or the gut microbiome can trigger the immune response.
- **Genes:** A person is at a higher risk of being diagnosed with Crohn's disease if a close family member, such as a parent, sibling, or grandparent, has it.
- Smoking: Smoking cigarettes increases the risk of developing Crohn's disease. Studies have found that it doubles the risk and may lead to more severe disease.
- Stress: The body's stress response may contribute to flare-ups. Constant physical and psychosocial stress may trigger inflammation of the digestive tract.
- Location: People living in developed countries and urban areas have a higher risk than those living in less developed countries and rural areas.
- Microbiome: The microbiome is a group of microorganisms (bacteria, viruses, and fungi) in the digestive tract that help digestion. People with inflammatory bowel disease (IBD) have different microbiomes than those without it, and researchers are still studying how this affects IBD.

What are the complications of Crohn's disease?

Crohn's disease can lead to complications that may require additional treatment or even surgery. These include:

- Abscesses: Infected pockets of pus that can form in the digestive tract or abdomen, causing pain and swelling.
- **Anal fissures:** Small tears in the skin around the anus, leading to pain, itching, and bleeding.
- Fistulas: Abnormal openings that form between two body parts that should not be connected. In Crohn's disease, fistulas can create a tunnel between the rectum or anal canal and the skin around the anus, which may cause pain, infection, and drainage.
- Bowel obstructions: A blockage in the intestines that can partially or completely stop digestion. These can occur due to scar tissue or abnormal narrowing (strictures).
- Malnutrition: Difficulty absorbing essential nutrients due to inflammation, leading to deficiencies. Nausea and pain may also make eating difficult.
- Anaemia: A low red blood cell count, which can cause fatigue, dizziness, and weakness. About 1 in 3 people with Crohn's disease experience anaemia.
- Bowel Perforation (Rupture): A bowel perforation happens when ongoing inflammation in the intestines weakens the intestinal wall, causing a hole to form. This can be extremely dangerous because intestine bacteria can leak into the abdomen, leading to a severe infection called peritonitis. In Crohn's disease, a perforation can happen due to an abscess (a pocket of infection) or a fistula (an abnormal tunnel-like opening between body parts).

Crohn's disease can also increase the risk of colon cancer and blood clots, so regular medical check-ups are important.

Crohn's disease prevention

There is no known way to prevent Crohn's disease. However, people who are at higher risk because of family history or those who already have the condition can make lifestyle changes to reduce flare-ups and support digestive health. These changes may include:

- Quitting smoking: Quitting smoking is one of the best ways to reduce the risk of flare-ups and complications.
- Avoiding medications that may trigger flare-ups: Some medicines, like certain NSAIDs, can increase the risk of flare-ups. Healthcare professionals can advise which medicines are safe for Crohn's disease and which medicines to avoid.

- Avoiding foods that trigger symptoms: No single food causes inflammation, but some may worsen symptoms. For example, if someone is lactose intolerant, they may need to avoid dairy. People with a narrowed intestine (stricture) may need to avoid carbonated drinks or high-fibre foods. Keeping a food diary can help identify foods that are easier to digest.
- Taking care of mental health: Getting enough rest and exercising improves overall well-being, making it easier to manage life with Crohn's disease. Since stress and anxiety are common with Crohn's disease, consulting a mental health professional can provide support and valuable coping strategies.

How is Crohn's disease diagnosed?

Healthcare professionals diagnose Crohn's disease by reviewing a patient's medical and family history, performing a physical examination, and ordering medical tests. These tests can help rule out other medical conditions like Crohn's disease and confirm the diagnosis of Crohn's and the location and severity of inflammation.

Stool samples may be tested for signs of bleeding or inflammation and to determine whether diarrhoea is caused by an infection. If inflammation is confirmed, further examination using imaging techniques such as endoscopy, X-rays, CT, or MRI scans may be performed to examine the inside of the body.

Endoscopy tests use an endoscope (a thin, flexible tube with a light and camera connected to a computer and video monitor), which is inserted through the rectum, mouth, or a small abdominal incision to obtain a detailed view of the intestinal tract. A small piece of tissue can be taken during an endoscopy and examined under a microscope to confirm Crohn's disease and rule out other conditions. The diagnosis of Crohn's disease requires the expertise of specialist doctors because of the specialised tests and evaluations needed to confirm the condition.

Treatment and Management of Crohn's disease

There is currently no known cure for Crohn's disease. However, various treatment options are available, and healthcare providers work closely with patients to determine the most effective therapy for their condition. Treatments that may help manage symptoms and improve quality of life include:

Medication

Treatment for Crohn's disease includes medicines that reduce inflammation and calm the immune response. Studies suggest that controlling inflammation can improve the long-term outcomes of Crohn's disease. Additionally, iron supplements, vitamin B-12, calcium, and vitamin D supplements may also be necessary to help manage the condition effectively.

- Corticosteroids: Corticosteroids calm inflammation in the short term but are not usually appropriate for long-term symptom management.
- Immunomodulators: Immunomodulators work by changing how the immune system works. Some types, called immunosuppressants, help calm the immune response to reduce inflammation. Examples include azathioprine and methotrexate.
- Biologics: Biologics are medicines that target specific proteins that cause the immune system to have an excessively activated immune response.
- Small molecule advanced therapies: Pills called Janus Kinase inhibitors (JAK-inhibitors) also reduce the immune response and can be used to treat Crohn's disease.
- Antibiotics: Antibiotics are used to treat complications of Crohn's disease, such as severe infections that can cause abscesses or fistulas.
- Anti-diarrhoea medication: Medicines can be prescribed to stop severe diarrhoea.
- Pain: Several treatments are available to help manage pain caused by Crohn's disease.

Nutrition

Proper nutrition can improve overall health and help manage the disease in the short term. If someone cannot get enough nutrients from food, they may need Exclusive Enteral Nutrition (EEN), which involves consuming a liquid medical formula as the sole source of nutrition. This can be done through a feeding tube or by drinking the formula. Doctors may provide recommendations and do tests to make sure nutritional needs are met based on someone's specific condition. There might also be a need to see a dietician to recommend a diet for the condition.

Surgery

Surgery can treat complications of Crohn's disease. Surgery may be needed to remove intestinal perforations (holes), fistulas, strictures and blockages.

What is covered under PMB level of care?

Crohn's disease is included in the Prescribed Minimum Benefit (PMB) conditions under the Chronic Disease List (CDL) and is also included under Diagnostic Treatment Pair (DTP) code 292F - Regional enteritis; idiopathic proctocolitis – acute exacerbations and complications only. The CDL includes a treatment algorithm that outlines the recommended medicine management for the disease.

The treatment component specified for this DTP is medical and surgical management. This means the diagnosis, treatment and care costs of Crohn's disease should be covered in full according to the conditions of the PMB regulations, which also allows medical schemes to request that members and beneficiaries use Designated Service Providers to manage costs. The diagnostic tests and treatment cover include:

- Consultations
- Pathology tests
- Radiology and other investigative and monitoring services
- · Acute and chronic medication
- Surgery

Biological treatment is not part of the current PMB treatment algorithm for Crohn's disease. If a healthcare provider recommends biological therapy, they must consult the medical scheme to confirm the available benefits and ensure that managed care protocols are followed. The PMB regulations allow for exceptions if formulary drugs (medical scheme's list of approved medicines) or managed care protocols are ineffective or cause side effects without penalis-

ing the patient.

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