

## Crohn's Disease

Crohn's disease is a type of inflammatory bowel disease (IBD) that causes chronic inflammation of the gastrointestinal (GI) tract, which can involve any part from the mouth to the anus, though it most commonly affects the ileum (the last part of the small intestine) and the colon (large intestine). It is characterized by periods of flare-ups and remission.

The exact cause of Crohn's disease is unknown, but it is believed to involve a combination of genetic factors, an immune system malfunction, and environmental influences.

### Symptoms of Crohn's Disease:

#### Gastro-intestinal Symptoms

- **Abdominal pain:** Often crampy or colicky in nature, usually in the lower right abdomen (if the ileum is involved).
- **Diarrhea:** Frequent, watery stools, often with mucus or blood. In severe cases, diarrhea can be persistent.
- **Blood in the stool:** Sometimes visible, especially during flare-ups.
- **Weight loss:** Due to malabsorption of nutrients, decreased appetite, and increased metabolic demand.
- **Fatigue:** Due to chronic inflammation and malnutrition.
- **Bloating or fullness after eating.**
- **Nausea and vomiting:** Especially when there is a narrowing of the bowel (stricture).

#### Extra-intestinal symptoms

- **Arthritis:** Joint pain and swelling, particularly in the large joints (e.g., knees, hips, elbows).
- **Skin problems:** Conditions like erythema nodosum (painful red bumps on the skin) or pyoderma gangrenosum (painful ulcers).
- **Eye inflammation:** Conditions like uveitis or episcleritis causing redness, pain, or vision problems.
- **Liver disease:** Fatty liver disease or primary sclerosing cholangitis (a disease affecting bile ducts).
- **Kidney stones:** Crohn's patients have an increased risk of developing kidney stones.

## Severe Complications of Crohn's Disease

- **Strictures:** Narrowing of the intestine due to chronic inflammation, which can obstruct the passage of food.
- **Fistulas:** Abnormal connections between different parts of the bowel, or between the bowel and other organs (e.g., bladder, vagina, skin).
- **Abscesses:** Pockets of infected material in the abdomen, which may require drainage.
- **Perforation:** A hole in the bowel wall can lead to peritonitis (infection of the abdominal cavity).

## Investigations for Crohn's Disease:

- Clinical Evaluation
- Laboratory test
- Endoscopy: Upper GI Endoscopy, Diagnostic Colonoscopy and Capsule endoscopy
- Imaging test: CT scan, USG and MRI
- Stool test

## Management of Crohn's Disease:

### 1. Medical Treatment

Treatment aims to control inflammation, induce remission, and prevent complications. The approach varies depending on the severity and location of the disease.

1. Anti-inflammatory Medications
2. Immunosuppressive Medications
3. Biologic Therapies
4. Antibiotics
5. Probiotics
6. Pain Management

### 2. Nutritional Support

- Dietary modifications:
- Enteral nutrition.
- Supplementation:

### 3. Surgery: Advanced technique: Robotic/Laparoscopic Surgery

Surgery is typically considered when medical treatment fails, or when complications such as strictures, fistulas, abscesses, or perforations occur. Common surgical options include:

- Robotic/Laparoscopic: Resection of affected bowel
- Stricturoplasty:
- Fistula repair

