

REGIONAL ENTERITIS

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CROHN'S DISEASE



<https://gut.bmj.com/content/gutjnl/1/2/87.full.pdf>

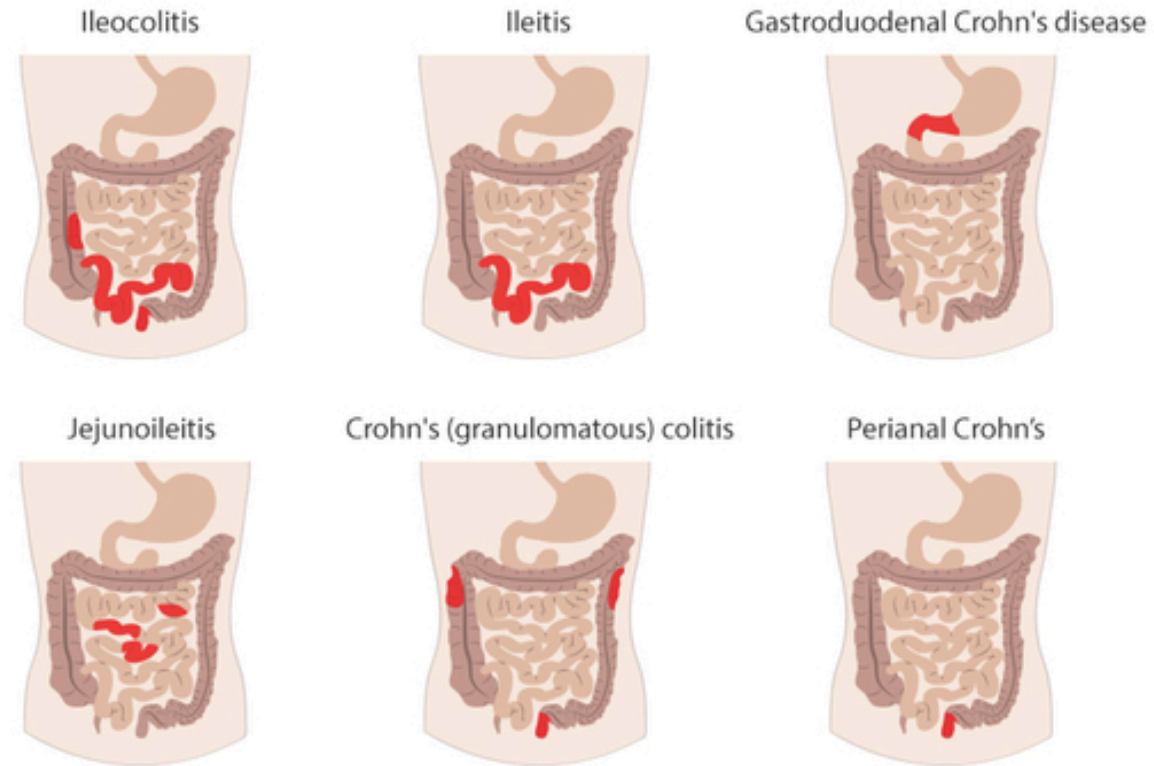
ETIOLOGY

- ❖ Inflammatory bowel disease^{1,2}
- ❖ Genetic autoimmune condition¹
- ❖ Affects the small bowel and the beginning of the colon^{2,3}

DIFFERENT TYPES

- ❖ Ileocolitis³
- ❖ Ileitis³
- ❖ Gastroduodenal Crohn's disease³
- ❖ Jejunoileitis³
- ❖ Ulcerative colitis³
- ❖ Perianal Crohn's³

TYPES OF CROHN'S DISEASE



IBDrelief

www.ibdrelief.com

<https://www.ibdrelief.com/learn/what-is-ibd/what-is-crohns-disease>

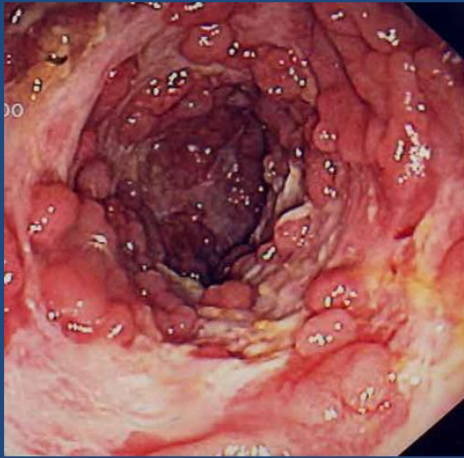
WHAT'S THE DIFFERENCE

Crohn's Disease

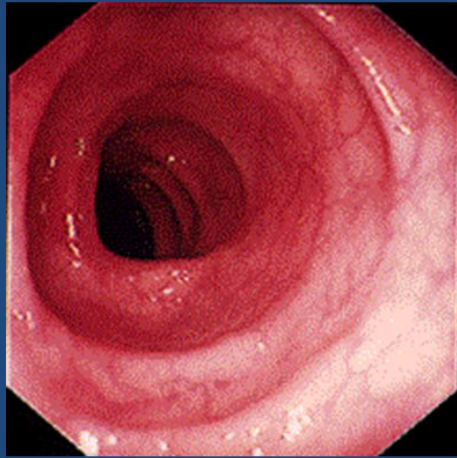
- ❖ Can affect any part of the GI tract³
- ❖ Affects all layers of the bowel wall³
- ❖ 780,000 have been diagnosed³
- ❖ More prevalent between ages 15-35³
- ❖ More common among eastern European descent and African American populations³

Ulcerative Colitis

- ❖ Chronic disease of the colon³
- ❖ Only affects the lining of the colon³
- ❖ 907,000 have been diagnosed³
- ❖ More prevalent in mid-30's³
- ❖ More common among white people of European origin and people of Jewish heritage³



Colon with Crohn's disease



Normal colon



Normal Colon Lining



Ulcerative Colitis

Endoscopic picture

<https://slideplayer.com/slide/5876338/>

https://www.slideshare.net/E_neutron/celiac-inflammatory-bowel-disease

WHO IS AFFECTED BY IT

- ❖ 780,000 Americans³
- ❖ Affects men and women equally³
- ❖ Can occur at any age, seems to be more prevalent in ages 15-35³
- ❖ The risk of being diagnosed with this disease increases between 5-20% when a relative has been diagnosed³

GENETIC COMPONENT

- ❖ Classified as an genetic autoimmune disease^{1,2}
- ❖ Isabelle Cleyne conducted a study to determine genetic role in Crohn's disease⁴
- ❖ The research was able to identify 163 susceptibility loci for Crohn's disease and ulcerative colitis⁴
- ❖ Another population was gathered and tested, this time it found 3 loci associated with the subphenotypes of inflammation⁴

PATHOLOGY

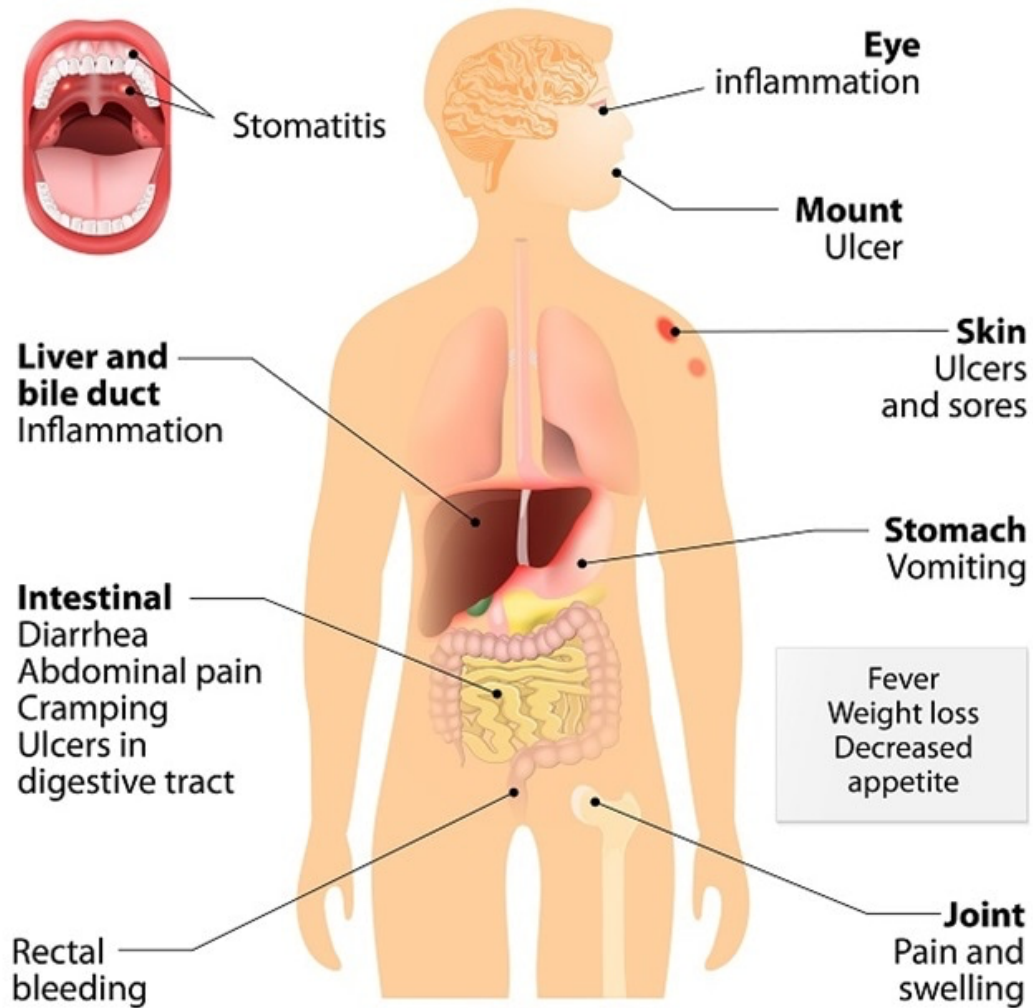
- ❖ Characterized as flare-ups and periods of remission⁵
- ❖ Disease begins with inflammation of the small bowel and colon ^{2,3}
- ❖ May affect any part of the GI tract, from mouth to anus³
- ❖ As disease advances, bowel wall thickens and becomes fibrotic, and the intestinal lumen becomes narrower²

PATHOLOGY

Onset of the disease is usually insidious

- ❖ Secondary anemia²
- ❖ Have emaciated appearance²
- ❖ Persistent diarrhea³
- ❖ Urgent bowel movements³
- ❖ Cramps³
- ❖ Rectal bleeding³
- ❖ Fever³
- ❖ Weight loss³
- ❖ Fatigue³
- ❖ Sensation of incomplete evacuation³
- ❖ Loss of normal menstrual cycle³
- ❖ Stomatitis⁴
- ❖ Eye inflammation⁴
- ❖ Mouth ulcers⁴
- ❖ Skin ulcers and sores⁴
- ❖ Insomnia⁶
- ❖ Depression⁶
- ❖ Anxiety⁶

Crohn's disease



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CROHN'S DISEASE AND FATIGUE: CONSTANCY AND CO-VARIATIONS OF ACTIVITY OF THE DISEASE, DEPRESSION, ANXIETY AND SUBJECTIVE QUALITY OF LIFE

- ❖ Examined quality of life from patients suffering from Crohn's disease⁷
- ❖ 29 women and 33 men⁷
- ❖ Patients had to fill out a questionnaire for fatigue, depression, disease activity, mental health, general health, anxiety, sleep disturbance, and quality of life⁷
- ❖ Performed again one year later⁷
- ❖ Patients reported symptoms being worse during flare-ups⁷
- ❖ Patients in remission, symptoms were still there but not as bad⁷

DIAGNOSIS

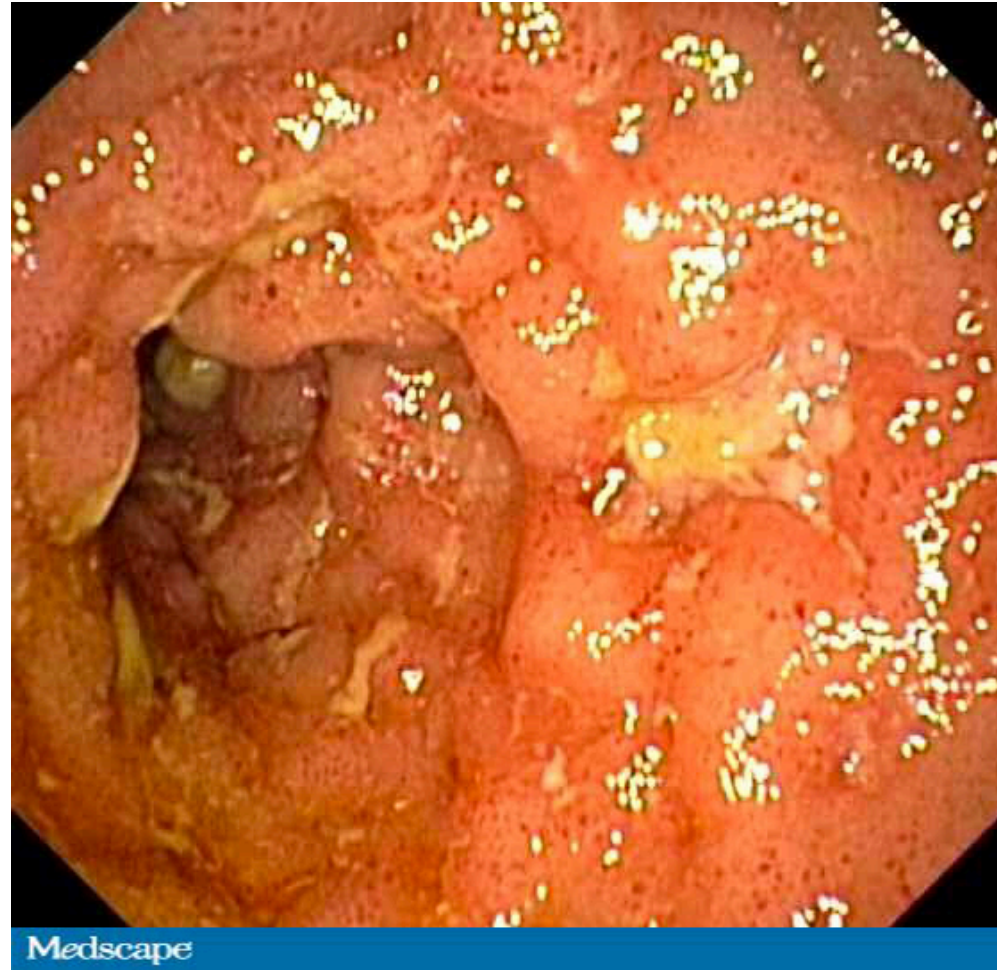
- ❖ Proctosigmoidoscopy²
- ❖ Colonoscopy²
- ❖ Endoscopy²
- ❖ Intestinal biopsies²
- ❖ CT scan²
- ❖ Barium enema²
- ❖ Blood work²

COLONOSCOPY



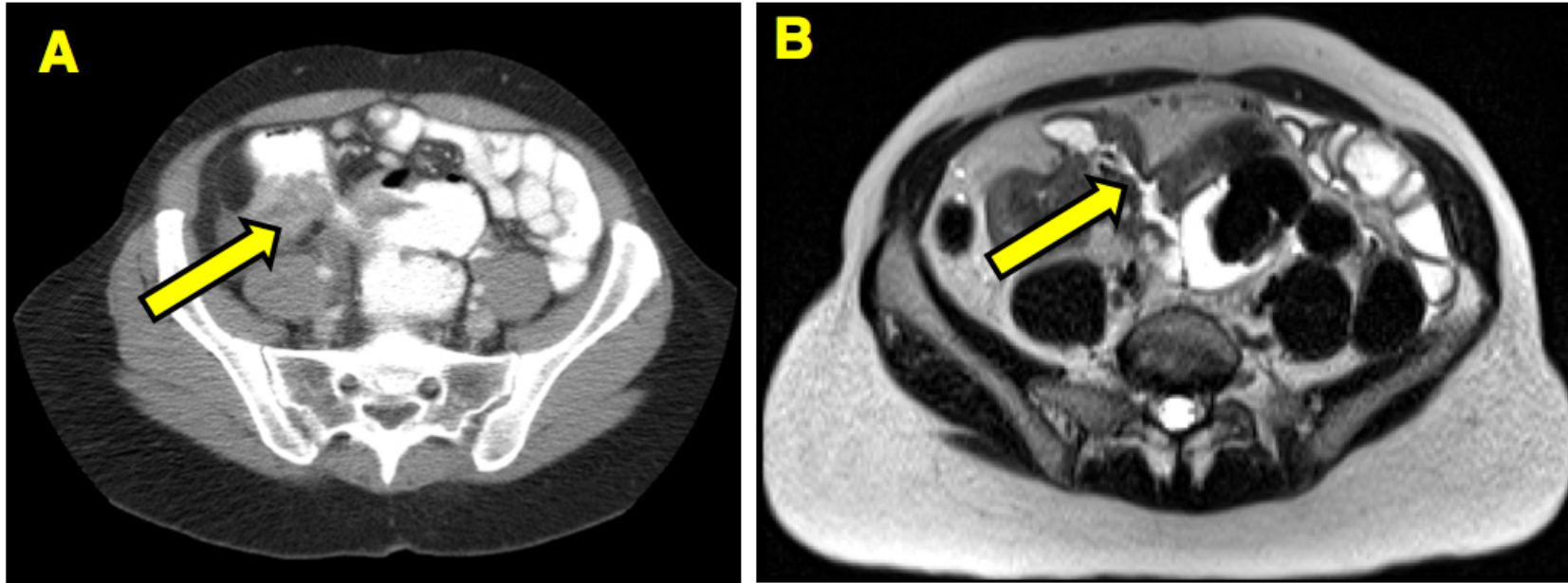
<http://www.chirayunationalhospital.com/services/colonoscopy/>

ENDOSCOPY



<https://www.medscape.com/viewarticle/871581>

CT SCAN



Imaging from a Crohn's patient who had a small bowel resection for obstruction.
(A) CT scan shows non-specific inflammation whereas (B) MRE of the same area shows a fibrostenotic stricture

<https://www.sages.org/meetings/annual-meeting/abstracts-archive/magnetic-resonance-enterography-versus-computerized-tomography-in-patients-with-crohns-disease-undergoing-resection-does-mre-provide-the-tipping-point/>

BARIUM ENEMA



DIAGNOSIS

- ❖ Back in 1990's, Crohn's was commonly mistaken for irritable bowel syndrome, depression, or mesenteric panniculitis⁶
- ❖ One patient's Crohn's was diagnosed through a blood test⁶
- ❖ It found that the patient had an infection rate 7 times higher than the normal rate⁶

CROHN'S DISEASE MISTAKEN FOR LONG-STANDING IDIOPATHIC MESENTERIC PANNICULITIS

- ❖ Mesenteric panniculitis (MP) is a commonly associated sign of systemic inflammatory primary disease⁸
- ❖ Patient had 10-year history of abdominal symptoms along with flare-ups and remission⁸
- ❖ Normal lab work and upper and lower endoscopies. Only CT-scan was compatible with MP⁸
- ❖ Explorative laparoscopy was performed due to concern of malignancy of MP nodes growing up to 10 mm⁸
- ❖ Finally diagnosed as Crohn's disease due to histopathological bowel resection and multiple granulomas without necrosis⁸

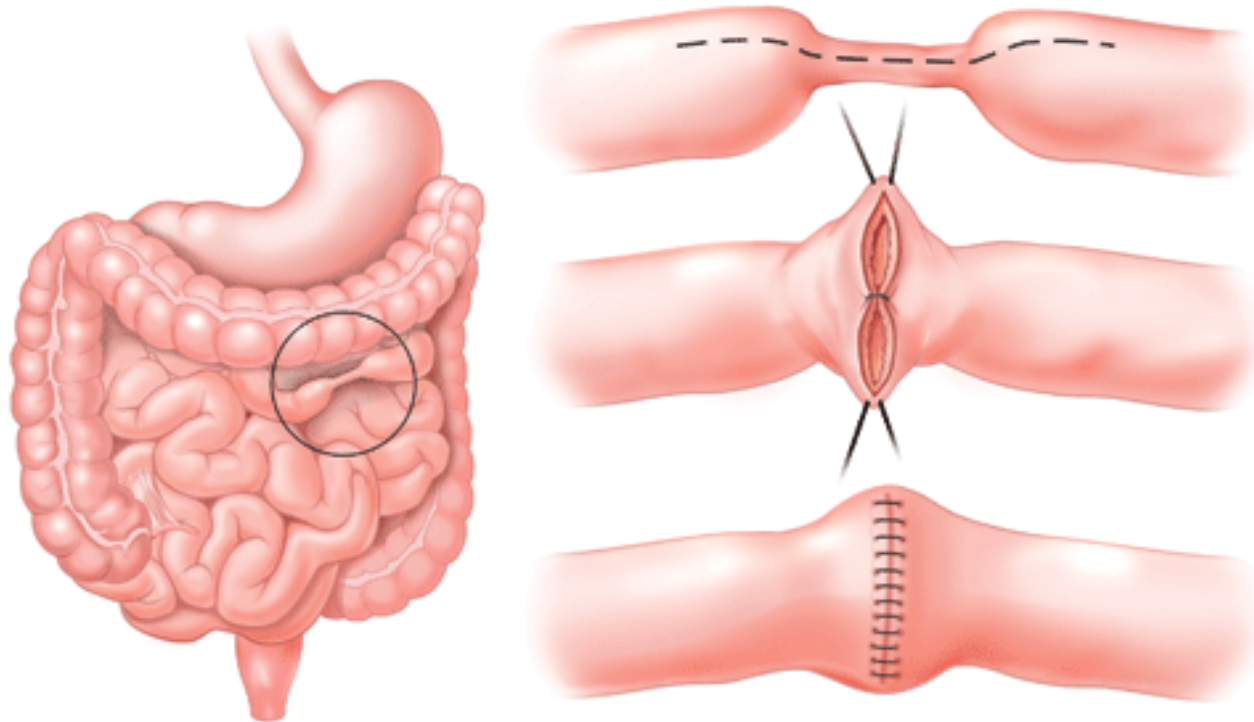
MANAGEMENT

- ❖ No cure for Crohn's disease⁹
- ❖ Managing the disease depends on what part of the gastrointestinal tract is affected⁹
- ❖ Several medications are commonly used when treating Crohn's: Sulfasalazine, corticosteroid budesonide, sargramostim, lactoferrin bovine^{9,10}
- ❖ Corticosteroids have shown to induce remission in some patients^{9,10}
- ❖ Proper diet⁹

MANAGEMENT

- ❖ Ultimately, surgery becomes the main option for managing the disease³
- ❖ A portion of the diseased bowel will be removed³
- ❖ The two ends of the healthy bowel will be joined together³

SURGERY



<http://columbiasurgery.org/conditions-and-treatments/crohns-disease>

PROGNOSIS

- ❖ It is not a terminal disease but there is not a cure⁹
- ❖ It can take several years for the patient to be correctly diagnosed
- ❖ It can take months to figure out what medications and diet will work for the patient
- ❖ Patients have been able to come up with a few tricks: portable toilet in the car and timing bowel movements right after eating⁶

CONCLUSION

- ❖ Crohn's disease can be very complicated
- ❖ Etiology and pathology can be very similar to other diseases and conditions
- ❖ Diagnosing has come a long way over the past decade, but it can still take awhile to get a proper diagnosis
- ❖ It is a disease that the patient will have to live with for the rest of their lives

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