

A GLANCE AT IBD ANATOMY

What does it mean to have IBD? How and why does the body malfunction?

This infographic aims to answer these questions and provide a basic understanding of what is going on in the body of someone with IBD.

IBD IS: chronic inflammation of the gut



WHAT IS INFLAMMATION?

Inflammation is **the response** and defense mechanism of the immune system. Inflammation is **the result** of protecting the body from infection and injury. The immune system's **goal** is to eliminate the *pathogen* (disease-causing agent) and remove any damaged components from the body so that it can begin to heal. In order to accomplish this, there are changes in blood flow and the circulation of *white blood cells* (WBCs) to the site of damage. This is what we understand as inflammation -- it can be **characterized** by redness, swelling, pain and irritation.

acute inflammation: short-lived
chronic inflammation: long-lasting

WBCs

white blood cells

BODYGUARDS OF THE BODY



Even though white blood cells only make up ~1% of your blood, they are the majority of the immune system! WBCs are constantly on guard, responding to foreign invaders in the body and neutralizing threats. WBCs flow throughout the blood/tissues in your body, concentrating in areas of injury or infection. This increased blood flow can cause redness, warmth, or swelling. These protective measures may trigger nerves and cause pain -- i.e.,

inflammation



There are 5 major types of WBCs and they are all made in your body's bone marrow!

INFLAMMATORY BOWEL DISEASE IS AN IRREGULARITY OF THE IMMUNE SYSTEM



In a properly functioning immune system...

WBCs attack **foreign organisms**, such as bacteria and viruses, to protect the body.

With an autoimmune disease...

WBCs incorrectly attack **our own body**. In IBD, the immune system attacks the intestinal lining.

Chronically, this leads to inflammation of the gastrointestinal system

Why does this happen?

The cause of IBD is currently unknown. Similarly to other autoimmune diseases, IBD results from a genetic predisposition and some type of trigger from the environment. Exact triggers are unknown but stress or viruses are thought to be likely triggers. This is perhaps the largest field of study in the IBD world now. Once the exact cause, or gene, of IBD is identified, a cure can work to target it.

IBD or IBS?

Irritable bowel syndrome (IBS) and IBD have similar **symptoms** but IBS is a *disorder* of the digestive tract whereas IBD is a **structural disease**. IBD causes physical damage to the gut upon examination whereas IBS does not. IBD most likely requires the use of medication and sometimes surgery; these interventions have no effect on IBS symptoms.

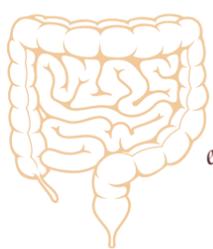
for more: <https://badgut.org/information-centre/a-z-digestive-topics/the-irritable-gut-ibs-vs-ibd/>

THERE ARE

2 TYPES OF IBD

The difference between **Crohn's Disease** and **Ulcerative Colitis** has to do with the *location* and *extent* of inflammation in the GI tract.

Crohn's Disease



affects the length of the GI system (mouth to anus)

disease *can* go through the **entire bowel wall** reaches the *outermost layer* of the digestive tract



Ulcerative Colitis (UC)

disease only involves the inner lining of the bowel (**mucosa**)

affects the large intestine and colon



People with IBD experience intermittent periods of sickness and health. This cycle can be understood as times of **flare ups** and times of **remission**

the cyclical nature of IBD is what makes it a chronic illness

FLARE UPS

Flare ups are characterized by active inflammation and the onset or worsening of symptoms

Flare ups can arise seemingly out of nowhere, despite medication and self-care practices. They are indicative of a need for novel forms of treatment and a change in care.



The goal of IBD treatment is to reach and maintain **remission** - a period of time where symptoms improve or disappear entirely

Remission can last weeks to years and is usually maintained by medication and diet

REMISSION

IBD University is working to keep the most updated research available. For more information or to see where we got all of our information please see any of the following sources below:

- <https://www.cdc.gov/ibd/what-is-IBD.htm>
- <https://www.webmd.com/ibd-crohns-disease/ulcerative-colitis/causes-ulcerative-colitis>
- <https://www.britannica.com/science/inflammation>
- <https://www.webmd.com/arthritis/about-inflammation>
- <https://www.urmc.rochester.edu/encyclopedia/content.aspx?ContentID=35&ContentTypeID=160>
- <https://www.quibd.com/ibd-resources/differences-between-crohns-disease-and-ulcerative-colitis/>
- <https://www.medicalnewstoday.com/articles/323338>
- <https://www.healthline.com/health/crohns-disease/understanding-crohns#treatment>