

# A GLANCE AT IBD ANATOMY

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

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 a key **defense mechanism** of the immune system. It is the body's response to an **injury, infection** or the **perception** of one. When inflammation occurs, blood flow increases and **white blood cells (WBC)** are directed to the affected area to address the damage. This process helps protect and repair the body, and is often **characterized by** redness, swelling, pain, and irritation. These symptoms are **typically** signs that the body is working to begin the healing process; however, inflammation can also occur in **the absence** of an actual threat when the immune system **mistakenly** targets healthy cells. This is what we understand as **autoimmunity**.

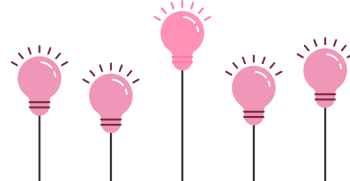
**acute inflammation:** short-lived  
**chronic inflammation:** long-lasting

## 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 and 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 **environmental trigger**. Exact triggers are unknown but stress, viruses, and diet are thought to be likely causes. Autoimmunity is one of the largest fields of study in medicine right now making remarkable discoveries every day. Once the cause or gene of IBD is identified, treatments will improve and it may even be possible to find a cure!

## IBD or IBS?

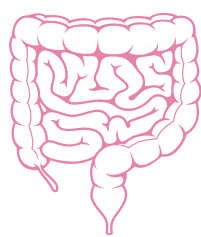
Irritable bowel syndrome (IBS) and IBD may sound similar but are vastly different. Although both are digestive conditions with overlapping symptoms, IBS is a **disorder** characterized by chronic symptoms whereas IBD is a **structural disease**. This means IBD causes **physical damage** to the gut whereas IBS does not. The inflammation and chronic swelling of the intestines in IBD likely requires the use of medication and sometimes surgery; these interventions have no effect on IBS symptoms. IBS does not develop into IBD or cause permanent harm in your intestines, however it is possible to **have both** IBD and IBS concurrently.

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)

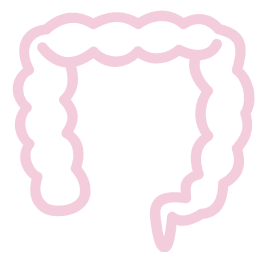
Disease *can* go through the **entire bowel wall** reaches the *outermost layer of the digestive tract*

VS

### 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 achieved by medication or lifestyle changes

## REMISSION



IBD University is working to keep the most updated research available. For more information on some of the topics discussed here, please see any of the following sources below:

IBD Basics  
Ulcerative Colitis Guide  
Crohn's Disease Guide  
Inflammation

Inflammatory Symptoms  
IBS versus IBD  
Difference Between Crohn's and Colitis  
Remission & Relapse