

What is leaky gut?

The leaky gut story begins in a very important organ: your small intestine. The small intestine is so important because most of the vitamins and minerals in the foods you eat are absorbed there. In order for the vitamins and minerals to be absorbed, the small intestine contains microscopic pores so the nutrients can be transferred into the bloodstream. Once transferred, the nutrients are then shuttled and deposited all around the body by the blood.

The wall of the intestine is considered semi permeable. This means the pores only allow certain things to enter the bloodstream. For instance, specific molecules and nutrients are allowed to pass through but toxins and large undigested food particles are blocked.

The problem with leaky gut is it causes the pores in your intestine to widen. When this happens, undigested food particles and toxins are supposed to be blocked are allowed to make their way into the bloodstream. Because these items are not supposed to be in the blood, they cause the immune to go into attack mode, which can often lead to allergies and many other unexplainable symptoms.

To give you an example, imagine you have leaky gut and eat an apple. When it makes its way into your small intestine, bits of undigested apple that *should* stay in the small intestine slip through the large pores directly into your blood. Because these particles are not supposed to be in your bloodstream, the immune system identifies them as dangerous invaders.

Basically, the immune system says, “Hey, this particle shouldn’t be here, so we need to attack it with an immune response and build up antibodies to protect ourselves from it.” The problem is the immune system doesn’t just build up antibodies to the food particles; it attacks your healthy cells too. This is one of the ways **food allergies and autoimmune disorders** develop.

So, how does leaky gut happen?

There are several causes of leaky gut. For example, if you are chronically constipated, overtime the toxins in your stool will irritate the lining of your intestines. This irritation leads to inflammation which will cause the pores in the small intestine to expand. If the irritation and inflammation are allowed to continue for an extended period of time it can lead to irritable bowel syndrome, Crohn’s disease, or colitis.

Another common cause of leaky gut is an imbalance of the flora inside your gut. When your gut flora is in balance the bad bacteria pose no threat. But when bad bacteria outweighs the good, irritation and inflammation occur, again, causing the pores of the intestine to open up.

Common causes of leaky gut

Drugs:

- Antibiotics
- NSAIDS – non-steroidal anti-inflammatory drugs (e.g. aspirin, ibuprofen, acetaminophen)
- Birth control pills
- Steroid drugs
- Chemotherapeutic agents
- Antacids

Diet:

A diet high in refined sugar and flour, processed foods, chemical food additives such as artificial colours and flavours, alcohol (yes that includes beer and wine), soda pop and caffeine act on the body like toxins. They place a heavy load on the body's immune system, overburden the liver, and irritate the intestinal lining.

Microorganisms & Free Radicals:

- Various parasites, bacteria, mold and mycotoxins can damage the intestinal lining and can act on undigested food molecules in the gut producing toxic wastes, chemicals, and gas. These toxic by-products can also damage the intestinal lining and, when they pass into the blood, set off immune responses and increase the body's toxic load.
- Free Radicals can damage any of the body's tissues and cells, including the intestinal lining.

Nutrient Deficiencies:

- Zinc and vitamin B-6 are needed to maintain intestinal wall integrity as well as produce hydrochloric acid.
- Vitamin A is needed to build healthy mucosal linings, including those of the intestines.
- The amino acid, L-glutamine, found in protein plays a part in the normal repair process of the intestines.
- Lack of enough stomach acid or digestive enzymes

Various Diseases and Disorders:

- Inflammatory conditions of the intestines such as Crohn's Diseases, colitis, celiac, and pancreatitis can not only cause an increase in intestinal permeability, the increased intestinal permeability can in turn aggravate these conditions.
- HIV/AIDS can also create a leaky gut as can medications used to manage the disease.
- Yeast Infection
- Cancers of the gastro-intestinal tract
- Food Allergies that cause an immune response along the gastro-intestinal tract
- Liver disorders and poor liver function

Lifestyle:

- A high-stress lifestyle or an inability to deal with everyday stresses-reduces blood flow to the gut and increases free radicals
- Nicotine
- Chronic overeating

