

### Leaky Gut Syndrome/Intestinal Permeability

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#### I Feel Bad and No One Can Tell Me Why!

Leaky gut syndrome (intestinal permeability) is not a disease but rather an intestinal dysfunction that underlies many different symptoms and illnesses. Unfortunately, the diagnosis of leaky gut syndrome in patients with multiple digestive issues is often overlooked.

Here are the facts about leaky gut syndrome and what you can do about it.

#### Development of Leaky Gut Syndrome

Leaky gut syndrome is the result of the development of permeable spaces between the cells of the gut wall that allow large food molecules, bacteria, viruses, parasites, toxins, fungus, and yeasts such as Candida to leak into the bloodstream and cause infection, disease and other adverse conditions. These microbes and their toxins, if present in excessive amounts, can also overwhelm the liver's ability to detoxify.

They are regarded as foreign to the body's defense system and result in the production of antibodies against them. Often these same antibodies work against our own tissue. This is how food allergies and fibromyalgia develop and how autoimmune and chronic diseases such as Crohn's disease, colitis, rheumatoid arthritis, lupus, multiple sclerosis, Addison's disease, asthma, and thyroiditis get started and progress.

The gastrointestinal tract is a prominent part of the immune system. The surface area of the digestive tract is estimated to be the surface area of a tennis court.

With such a large exposure, the immune system must work hard to prevent pathogens from entering into blood and lymph. The digestive tract immune system is often referred to as **gut-associated lymphoid tissue (GALT)**.

**Note:** 70% of your immune system is in your gastrointestinal tract.

A leaky gut diagnosis can be elusive. My experience as a nutritionist has been that most people who have many of the symptoms and conditions listed in the leaky gut syndrome assessment questionnaire never associate them with leaky gut syndrome. They usually try masking these symptoms with medications that may provide some relief but don't correct the underlying problem. Their symptoms return and they continue to be discouraged. If your leaky gut syndrome assessment questionnaire results suggest you have leaky gut, then it would be wise to get tested.

*See "Testing Information" in this section.*

## How to Heal a Leaky Gut

Eliminating the causes of leaky gut syndrome and following the *Eating for Vitality Diet* program is part of your solution to getting leaky gut syndrome out of your life. It takes a combination of behavioral/eating discipline and the right supplements to heal your leaky gut.

Here are suggestions for supplements:

- **Digestive enzymes** break down large food molecules (proteins, fats, and carbohydrates) for digestion and nutrient absorption, therefore lowering the risk of allergic responses and inflammation.
- **Proteolytic enzymes** reduce systemic inflammation and joint pain.
- **Probiotics** restore healthy intestinal flora, enhance immune system, aid in the digestion and absorption of food as well as proper bowel function.
- **EPA/DHA Omega-3's fish oil** reduces inflammation, promote intestinal healing, and support the immune system.
- **L-Glutamine powder** has a powerful anti-inflammatory effect, soothes and heals the intestinal lining, which is essential for digestion, immune function, liver function, and overall health.
- **Highly absorbable multi-vitamin-mineral medical food powder** helps restore nutrient balance and provide the vitamins and minerals the body needs to build healthy mucosal linings and gastric juices.
- **Glutathione** is a powerful antioxidant for liver detoxification.
- **N-Acetyl Cysteine (NAC)** is a powerful antioxidant that enhances liver function through the production of glutathione for detoxification.
- **High-quality (soluble and insoluble fiber) bowel cleanse** absorbs toxic wastes and gently eliminate them.
- **Vitamin D3** strengthens the tight junctions of the gut epithelial cells to inhibit leaks.
- **Quercetin** improves gut barrier function and reduces the histamine response.
- **Curcumin** has powerful anti-inflammatory effects that restore the intestinal barrier function.
- **N-Acetyl-Glucosamine (NAG)**  
This substance is an amino-sugar, a combination of an amino acid and glucose. NAG is essential for the secretion of the mucus that creates a protective lining on top of the cells of the gut.
- **Zinc** (50-80 mg per day) enhances growth and healing of the intestinal lining.
- **Deglycyrrhized licorice (DLG)** has a powerful anti-inflammatory effect and is very soothing to the upper GI tract.
- **Aloe** provides a powerful anti-inflammatory healing action on the gut lining.
- **Plant extracts** for soothing, healing and restoring the mucosal barrier—kudzu (kudzu), various high chlorophyll containing green drinks such as spirulina, chlorella, and blue-green algae, slippery elm, ginger root, goldenseal, bismuth, and bentonite.