

## “Leaky Gut”/Intestinal Permeability and Its Relations to Dozens of Chronic Conditions: A Brief Overview

The lining of the intestines is a barrier that normally only allows properly digested fats, proteins, and starches pass through and enter the bloodstream. The cells lining the intestines are normally sealed very tight, but when the intestinal lining becomes irritated, relatively large gaps form between these cells and allow unwanted larger molecules in the intestines to pass through into the blood. These unwanted substances are seen by the immune system as foreign (because they aren't normally present in blood). This triggers an antibody reaction.

When the intestinal lining becomes further damaged, even larger substances, such as disease-causing bacteria, undigested food particles, and toxins, pass directly through the damaged cells. Again, the immune system is alarmed and antibodies and substances called cytokines are released. Cytokines alert white blood cells to fight the particles. This fight produces oxidants, which cause irritation and inflammation throughout the body.

### **Symptoms of Leaky gut syndrome / Intestinal permeability**

Symptoms include: abdominal pain, asthma, chronic joint pain, chronic muscle pain, confusion, fuzzy or foggy thinking, gas, indigestion, mood swings, nervousness, depression, poor immunity, recurrent vaginal infections, skin rashes, diarrhea, bed-wetting, recurrent bladder infections, poor memory, shortness of breath, constipation, bloating, aggressive behavior, anxiety, fatigue, feeling toxic, and more.

This is a partial list of some of the conditions associated with intestinal permeability:

- Autoimmune disease
- Autistic Spectrum Disorders
- Chronic Fatigue Syndrome
- Fibromyalgia
- Celiac disease
- Crohn's disease
- Environmental illness
- Hives
- Acne
- Allergies
- Inflammatory joint disease / arthritis
- Intestinal infections
- Pancreatic insufficiency
- Ulcerative colitis
- Giardia
- Chronic fatigue syndrome

- Eczema
- Psoriasis
- Food allergies and sensitivities
- Liver dysfunction
- Rheumatoid arthritis
- Irritable bowel syndrome

### **Some of the Many Causes of Leaky Gut Syndrome / Intestinal Permeability:**

- Chronic stress
- Food allergies
- Intestinal infections
- Small intestine bacterial overgrowth
- Environmental contaminants
- Excess alcohol
- Poor diet
- NSAIDS (non-steroidal anti-inflammatory drugs), steroids and other medications

### **Testing**

The standard test for leaky gut syndrome is the mannitol and lactulose test. Both are water soluble molecules that the body can't use. Mannitol is easily absorbed by people with healthy intestinal linings. Lactulose is a larger molecule and is only slightly absorbed. A person drinks a solution contain both mannitol and lactulose. Urine is collected for six hours and the amount present in urine reflects how much was absorbed by the body. A healthy test shows high levels of mannitol and low levels of lactulose. If high levels of both molecules are found, it indicates a leaky gut condition. If low levels of both molecules are found, it indicates general malabsorption of all nutrients.

Test Kits are available through my office.

To go further, please go to the following web addresses.

[www.ei-resource.org/illness-information/environmental-illnesses/leaky-gut-syndrome-\(lgs\)/](http://www.ei-resource.org/illness-information/environmental-illnesses/leaky-gut-syndrome-(lgs)/)

[http://EzineArticles.com/?expert=Dr.\\_Scot\\_Lewey](http://EzineArticles.com/?expert=Dr._Scot_Lewey)  
(select the Leaky Gut article)