

BOTTOM LINE  
**Natural Healing**  
With Dr. Mark Stengler

DEEPER CURES FROM AMERICA'S TOP NATURAL PHYSICIAN

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281 Tresser Boulevard  
Stamford, CT. 06901-3226  
203-973-5900

[www.BottomLineSecrets.com](http://www.BottomLineSecrets.com)

# The Digestion Connection

## Surprising factors that can trigger chronic health problems

**T**HERE IS A VERY CLOSE CONNECTION between poor digestion and many chronic health problems.

When the digestive system doesn't work efficiently, food is not absorbed properly. *Result:* Nutritional deficiencies that can trigger arthritis, diabetes, psoriasis, memory problems and much, much more.

Your body requires essential fatty acids and other nutrients from your food to ensure healthy joints. You also need nutrients to produce energy. Poor digestion can even trigger a reaction by the immune system that worsens disease-causing inflammation in the body.

Most holistic doctors and practitioners believe that it is impossible to prevent and heal health problems without addressing the functioning of the digestive system. This is a basic tenet in Chinese and Japanese traditional medicine, naturopathic medicine, chiropractic care, European and Western herbalism, homeopathy and Ayurvedic (Indian) medicine.

I estimate that 80% of the North American population suffers from a chronic digestive ailment, such as irritable bowel syndrome, ulcerative colitis, Crohn's disease, ulcers, heartburn, indigestion, diarrhea, diverticulitis and/or gas and bloating.

### LEAKY GUT SYNDROME

Your small intestine is where most of the digestion and absorption of food occurs. It consists of approximately 20 feet of narrow, twisted tract that connects the stomach to the large intestine.

Enzymes produced in the small intestine and pancreas, along with bile from the liver and gallbladder, break food into small particles before absorption takes place. Undigested material then progresses to the large intestine for elimination.

The lining of the small intestine has millions of microscopic, fingerlike projections called *villi* along with even smaller projections called *microvilli*.

Normally, the lining of the intestinal wall acts as a gatekeeper that allows properly digested food and nutrients to pass through its barrier into the bloodstream.

When the lining of the intestine becomes inflamed and damaged, bacteria and undigested food substances

“leak” into the bloodstream. These are perceived as foreign invaders by the immune system, which stimulates the production of antibodies and white blood cells.

This inflammatory reaction can lead to systemic symptoms, such as headache, abdominal pain and fatigue. It also can further damage the lining of the small intestine. This increases the likelihood that the intestine will absorb particles that are larger than normal—and this is what causes the aptly named leaky gut syndrome.

### Symptoms of Leaky Gut Syndrome

- Abdominal bloating and pain
- Difficulty focusing and concentrating
- Fatigue and poor stamina
- Intestinal gas
- Infections (frequent)
- Joint pain (chronic)
- Mood swings
- Muscle aches and pain (chronic)
- Rashes and unexplained skin problems

For the purposes of explanation, let's use a piece of plastic wrap as an example. If you were to stretch a piece and poke pinpoint holes in it with a needle, you could see that only very small substances could pass through the wrap. If you were to poke holes with a pencil, much larger substances could pass through. This is analogous to increased intestinal permeability, or leaky gut.

People with leaky gut syndrome also tend to develop food and environmental sensitivities. Because they don't absorb food properly, anything they consume may trigger an immune response.

This, in turn, creates more inflammation of the intestinal cells and greater permeability. The increased absorption of foreign particles and toxins puts a burden on the liver,

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which also affects health.

Leaky gut syndrome also may play a role in heart disease. There is increasing evidence that a leaky wall of the small intestine may lead to leakage of bacteria and/or toxins that stimulate an inflammatory response in the heart, triggering chronic heart failure. Improving our understanding of the role of the gut in cardiac disease may lead to the development of novel therapeutic strategies.

### CAUSES OF LEAKY GUT SYNDROME

The following are the most common factors that can cause or contribute to leaky gut syndrome...

#### POOR DIET

Alcohol, sugar, caffeine and hydrogenated fats (trans-fatty acids found in many packaged foods) can irritate and inflame the gastrointestinal (GI) tract, which leads to absorption problems.

Chlorine, which is used to kill bacteria and other microbes in the drinking water of most municipalities, also is a culprit. That's because this disinfectant also destroys the "good" bacteria that are needed to help digest food and guard against harmful pathogens.

#### STRESS

Your body responds to stress by releasing stress hormones—including *adrenaline*, *cortisol* and *dehydroepiandrosterone* (DHEA). These hormones help during times of stress, but they also challenge the digestion process.

Here's an analogy that explains why. Let's say you go for a walk after dinner, and a vicious dog begins chasing you. At that moment, your body is not concerned about digesting the food you just ate—instead, it releases stress hormones that help divert blood flow to the muscles you are using to escape danger. This diversion response is continuously activated in people who experience unrelenting stress, so their food is never properly digested.

### PHARMACEUTICAL MEDICATIONS

Long-term use of certain medications damages the lining of the small intestine as well as other areas of the digestive tract. These include antibiotics...chemotherapy drugs...non-steroidal anti-inflammatory drugs (NSAIDs), such as aspirin and *ibuprofen* (Advil)...and steroids, such as *prednisone*.

## The Root of Many Problems

Because leaky gut syndrome compromises immune function and nutritional status, it can be a root cause of virtually any chronic health complaint. The following health problems are associated with leaky gut syndrome...

- Acne
- Asthma
- Attention deficit/hyperactivity disorder
- Chronic fatigue syndrome
- Constipation
- Crohn's disease
- Depression
- Diabetes
- Diarrhea (chronic)
- Diverticulitis
- Ear infections (chronic)
- Eczema
- Fibromyalgia
- Food sensitivities
- Headache (migraine)
- Hives (chronic)
- Irritable bowel syndrome
- Lupus
- Memory problems
- Multiple chemical sensitivities
- Osteoarthritis
- Osteoporosis
- Psoriasis
- Rheumatoid arthritis
- Ulcerative colitis
- Yeast infection

Also, antacid medications, including *ranitidine* (Zantac), *cimetidine* (Tagamet), *lansoprazole* (Prevacid) and *omeprazole* (Prilosec), suppress the secretion of hydrochloric acid, which is required for protein digestion and the breakdown of other food. This creates a problem as larger-than-normal pieces of undigested food, especially proteins, enter the small intestine, making it less likely that they will be effectively broken down and properly absorbed.

### DYSBIOSIS

In healthy individuals, trillions of good bacteria coexist in the GI tract along with harmful bacteria and/or fungi. Dysbiosis occurs when there is an imbalance between friendly and harmful bacteria. Antibiotic use is a common cause of dysbiosis. This sets the stage for the development over time of leaky gut syndrome.

People often receive an antibiotic for a presumed bacterial infection—even though the Centers for Disease Control and Prevention estimates that approximately half of all antibiotic prescriptions are unwarranted. The antibiotic kills potentially harmful bacteria—but it does nothing positive if the infection is viral—and it wipes out the friendly bacteria, such as *Lactobacillus acidophilus*, *Bifidobacterium bifidum* and many other microbes that help sustain the immune system.

This allows opportunistic microbes to thrive and overgrow—and that increases inflammation, permeability and malabsorption as well as the likelihood of worsened food sensitivities and immune system dysfunction.

### INFECTIONS

Infections of the GI tract, especially those that are chronic and undiagnosed, can contribute to leaky gut syndrome. The most common is a fungal overgrowth, frequently involving a type of fungus known as *Candida*.

Several types of bacteria and parasites also can invade the GI tract. For example, one parasite that is frequently discovered in the analysis of people with leaky gut is *Blastocystis hominis*. Small amounts of this parasite are harmless, but an overgrowth can inflame the intestinal wall and contribute to digestive symptoms, such as diarrhea. These infections are more common in people who have dysbiosis.

#### ENVIRONMENTAL TOXINS

Our bodies are exposed to thousands of toxins, including pesticides and harmful metals, such as mercury. Large fish, including albacore tuna and swordfish, are common sources of mercury, as are “silver” dental fillings, which actually are half mercury.

Like antibiotics, mercury also destroys good bacteria as well as bad.

Does that sound far-fetched? Remember, mercury is a potent preservative that has been used in a wide range of products, such as eyedrops and vaccines. Mercury’s antibacterial effects kill good bacteria.

A holistic practitioner can test your level of toxic metals with a urinalysis, the most reliable way to measure mercury levels. Urinalysis measures organic mercury, as found in environmental or industrial pollution, and inorganic mercury, which is found in dental fillings. Hair analysis is less reliable, but it is convenient and inexpensive. A blood test is not recommended. That’s because toxic materials, such as mercury, are stored

in fat and neurological tissue.

If a high level of mercury is found, you should work with a doctor who is knowledgeable in chelation, a method of removing heavy metals from the body. Supplements, such as chlorella, alpha-lipoic acid and vitamin C (all available at health-food stores), and a high-fiber diet help pull toxic metals out of the body. ■

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