

# **ACID REFLUX**

## **BIOLOGICAL TREATMENT OF ACID REFLUX**

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### ***Facts: Low HCL = Poor Protein Digestion = Acid Reflux***

Patients have been led to believe that bloating, pain, and sour taste following meals is due to too much acid production, while quite the opposite is true. Unfortunately, once the physician prescribes an acid blocker to treat these symptoms, the misinformed patient's belief is concretized.

Too much acid (hyperchlorhydria) often occurs in patients between the ages of 18-28. The symptom they experience is referred to as "Hunger Pain", felt in the solar plexus area. This usually occurs when the stomach is empty, particularly in the morning. Several causes including: excess cigarette smoking, alcohol and junk food consumption, or in particular; stress, nervousness and anxiety during high school and college can be responsible for this condition.

The vast majority of patients suffering from acid reflux are age 35 and older. It is a fact that circulation in all organ systems decreases with age. Therefore, every body organ, including the stomach, ages. Simultaneously, HCL and pancreatic enzyme production decreases with age. Although most people over 40 are less physically active than when they were younger, they continue eating as if they were still in their 20s. This over-consumption of rich foods combined with partial or impaired digestion due to reduced HCL and poor pancreatic enzyme production, often results in a noticeable build-up of excess weight around the waist. The body is genetically trained to store excess calories as fat to be used in time of need (fasting, starvation). In previous centuries, protein was hard to come by and therefore considered a luxury.

### **HCL production**

Over a period of 24 hours, the body goes through an acid and alkaline cycle. The acid cycle begins at 3 a.m. and ends at 3 p.m. The alkaline cycle is from 3 p.m. to 3 a.m. The ideal time to eat

protein is during the acid cycle - breakfast and lunch. **HCL** is formed from hydrogen and chloride ions in the blood and is excreted into the stomach via the parietal cells. This triggers pepsin production essential for protein digestion.

Considering protein digestion can take up to 14 hours, or even longer, the heavy late-night dinner is most unfavorable. We have all witnessed an older person ordering a heavy protein meal, like prime rib or a swordfish steak, during the late evening hours in a restaurant. Once retired for the evening, the consumed protein creates putrefying gasses that push the mixed food paste from the stomach right back up into the esophagus. This is due to insufficient HCL for protein digestion, which causes the symptoms of acid reflux, insomnia, poor sleep, and nightmares. These gasses also can press the diaphragm against the heart, causing uncomfortable chest pains, which are often mistaken as heart attack symptoms.

Another reason for acid reflux is the inadequate opening and closing of the pyloric sphincter (valve). Bile can seep upwards into the stomach increasing the pH, causing the symptoms listed above.

### **Concerns about acid blockers:**

1. They relieve symptoms, but do not cure the problem.
2. They reduce HCL, which is critical for protein digestion and also builds a very important barrier against pathogens entering the intestinal tract.
3. Long-term treatment using acid blockers can lead to impotence in men.

### ***What about HCL supplementation?***

It is very difficult to supplement with the required dosage for each meal. Regular and long-term use of HCL supplements can force too much acid into the blood, which eventually exhausts the body's alkaline reserves. Decreasing the alkaline reserves jeopardizes the availability of alkaline bicarbonate ions, which are needed for the activation of pancreatic enzymes in the duodenum. Consistent HCL supplementation can inhibit digestive enzyme

functions in the GI tract. While protein digestion in the stomach improves, pancreatic enzyme activation is inhibited – no win!

HCL is generated by the oxyntic (parietal) cells and pepsinogen from the glands in the gastric mucosa. The body may produce enough pepsinogen but will be unable to properly digest protein because of insufficient HCL production.

The oxyntic (parietal) cells take the H<sup>+</sup> and CL ions from the blood. If the blood is struggling to prevent its pH from becoming too alkaline, it will try to retain its H<sup>+</sup> or acid ions. As a result, the condition of hypochlorhydria (low stomach acid) appears.

One has to remember the more acidic the urine and body tissue, the more alkaline the blood becomes. This is a major chemical imbalance occurring in chronic conditions. Poor diet habits result in low stomach acid.

Treatments using long-term supplementation of HCL products will throw too much acid into the blood, which eventually exhausts the body's alkaline reserves.

Severely decreasing the alkaline reserves will jeopardize the availability of the alkaline bicarbonate ions, which the blood provides for the activation of pancreatic enzymes in the duodenum. So, consistent HCL supplementation will lead to a bicarbonate deficiency in the small intestine. HCL will help to precipitate protein in the gastric tract but hinder protein digestion via enzymes in the small intestine.

On the other hand, long-term hyperchlorhydria (sour stomach) treated with antacids will throw too much alkaline substance into the blood, so the blood needs to use its acid reserves to balance the pH rather than contributing H<sup>+</sup> ions to the secretion of HCL.

### **CONCLUSION:**

**Any pH balancing supplementation is recommended only as a short-term treatment and during an acute onset.**

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