



### **Are you digesting your food and nutritional supplements?**

When we see or smell food in a healthy patient our stomach prepares by secreting HCl, hydrochloric acid. As we age, experience chronic stress, and/or take medicines and drink coffee, our production of HCl declines. Digestion begins in the mouth—we secrete over 4 liters of saliva per day and in that saliva are enzymes that break down food. Minimal chewing is the first place that proper digestion is compromised. It is ideal to chew 30 times per mouthful. Next, what should happen is a secretion of HCl in your stomach at the beginning of a meal but what is more common is lack of production of this important stomach acid. The HCl acidifies food in order to digest proteins into peptides and single amino acids and this process enhances the absorption of many nutrients. Iron, calcium, zinc, copper, folic acid, vitamin B12 and other B vitamins require the presence of HCl and without adequate HCl, vitamin and nutrient deficiencies are likely. If your HCl secretion is diminished this is the second area of digestion that could be compromised. Proteins that get into our stomach that do not get properly cleaved into single amino acids enter the small intestine partially intact. This theoretically sets the stage for future food sensitivities and allergic reactions in addition to promoting the development of autoimmune diseases.

Adequate HCL also serves as a barrier in the gut by killing various microorganisms that might otherwise colonize the GI tract. Hypochlorhidric individuals are at increased risk of bacterial, fungal overgrowth, parasitic infections in the GI tract and general dysbiosis.

#### **Common Symptoms of low HCl:**

1. Heartburn
2. Indigestion
3. Belching after meals
4. Bloating after meals
5. Excess gas
6. Constipation
7. Chronic diarrhea

#### **Non Gastrointestinal symptoms of HCl:**

1. Fatigue, depression, muscle cramping could also be explained by nutrient deficiencies caused by decreased HCl.
2. Weak peeling fingernails
3. Rosacea, acne, eczema
4. Dilated capillaries around nose and chin
5. Brittle hair
6. Excessive hair loss
7. White horizontal spots on finger nails indicating mineral deficiency

**Treatment of Hypoacidity:** Take one cap Betaine Hydrochloride during the first few bites of a meal. If you do not experience burning at the next meal take 2 caps. Continue increasing each meal until you do get burning or discomfort then decrease by one to the previous number of capsules. If you do get burning you can neutralize this with ½ tsp baking powder in 4 ounces of water. Factors that could change the number of caps that you need include meal size and protein portions.