

## Testing for Low Stomach Acidity

HCL (hydrochloric acid) is a critical component of healthy digestion and is produced in the stomach. Low or sub-optimal HCL production (hypochlorhydria) can occur for many reasons including age (many people over 60 have hypochlorhydria), use of acid blocking medications, chronic bacterial infections, and autoimmune gastritis (stomach inflammation). Without enough stomach acid, it is difficult to digest protein and absorb minerals and certain vitamins like B12. You are also at increased risk for food poisoning and other infections.

**Please Note:** Administration of HCL/pepsin is contraindicated in peptic ulcer disease. HCL can irritate sensitive tissue and can be corrosive to teeth; therefore, capsules **should not** be emptied into food or dissolved in beverages.

### Common Symptoms of Hypochlorhydria:

- Bloating, belching, burning and excessive gas immediately after meals
- A sense of fullness even with even smaller meals
- Indigestion, diarrhea or constipation
- Food reactions
- Weak, peeling and cracked fingernails
- Dilated blood vessels in the cheeks and nose
- Acne
- Iron deficiency
- Chronic intestinal parasites and dysbiosis (abnormal gut flora)
- Undigested food in the stool
- Chronic yeast infections

**Self-testing and treatment for low HCL/ hypochlorhydria:** You can determine if you need HCL by doing a trial of Betaine HCL.

1. Begin by taking one capsule of Betaine HCL (~250-300 mg), with or without pepsin, with a protein containing meal. Pepsin is one of the main enzymes that digests protein and is often given in combination with HCL. Someone with sufficient stomach acid would experience burning or discomfort in the stomach, similar to heartburn. If you do not feel anything, you should increase your dose to two capsules at the next meal. It is best to “sandwich” the capsules in between bites.
2. You should continue to increase slowly by one capsule per meal each day until you feel a warm sensation, **but it should not be uncomfortable**. If you feel a burning sensation or discomfort, reduce the dosage by one capsule. If the discomfort continues, discontinue the HCL and consult with your healthcare professional.
3. Once you have established an appropriate dose for you (the high end can be up to 8 capsules/meal) continue this dose with your main meals. If you are having a smaller meal, you may require less HCL, so reduce the amount you are taking.
4. Individuals with mild to moderate HCL or pepsin deficiency generally show rapid improvement in symptoms and early signs of intolerance to the acid. This indicates a return to normal acid. If you are very low in HCL, you may not experience such a quick improvement and may need consistent supplementation for a longer period of time.