JBS Nutrition & Wellness
Your Partner for a Peaceful Gut™

WHAT YOU NEED TO KNOW ABOUT SUPPORTING STOMACH ACID

LOW HYDROCHLORIC ACID (HCL)

Hypochlorhydria, low stomach acid, has been associated with many common health problems. Hydrochloric acid (HCL) secretion is critical for overall health. Adequate stomach acid is necessary to begin the process of protein digestion by activating pepsinogen to pepsin, it helps kill ingested pathogens, it inhibits undesirable overgrowth in the small intestines, and it encourages the flow of bile and pancreatic enzymes. HCl helps with the absorption of a number of nutrients, including folate, vitamin B12, ascorbic acid, beta-carotene, iron, and some forms of calcium, magnesium and zinc. Numerous studies show that HCl secretion in the stomach declines with age. Overuse of antacids is a common reason for low stomach acid that results in poor digestion.

A *normal stomach acid level is a pH of 1.5 to 3.0*. As we age, the parietal cells, that line the stomach, produce less hydrochloric acid. Use of acid blocking medications increases stomach pH to 3.5 or higher. This inhibits pepsin which can be irritating to the stomach, but it's also essential for digestion of protein. Since enough acid is necessary for absorption of many minerals, mineral depletion may occur, and symptoms related to this may occur. Stomach acid provides our first defense against food poisoning, H. pylori, parasitic and other infections. Without adequate acid we leave ourselves open to decreased immune resistance.

Adequate HCl is necessary for the absorption of vitamin B12 from food. B12 deficiency causes weakness, fatigue, and nervous system problems. Several minerals require an acidic environment for absorption, including iron, calcium, magnesium, zinc, and copper, and most B-complex vitamins require normal levels of stomach acid. Vitamin C levels are also low in people with poor stomach acid.

Acid is critical for the breakdown of protein bonds in the stomach. Poor acid content in the stomach causes indigestion. *The symptoms of hypoacidity (low acid) often mimic those of hyperacidity (overproduction of acid).*

Hypochlorhydria, low stomach acid, may be caused by the following: *Pernicious anemia, chronic H. pylori infection, long-term treatment with proton pump inhibitors (like Prilosec), auto-immune gastritis, and is common in autoimmune disease which is related to leaky gut.*

COMMON SYMPTOMS OF LOW GASTRIC ACIDITY

- ⇒ Bloating, belching, burning, and flatulence immediately after meals
- ⇒ A sense of fullness after eating
- ⇒ Indigestion, diarrhea, or constipation
- ⇒ Multiple food allergies
- ⇒ Nausea after taking supplements
- ⇒ Itching around the rectum
- ⇒ Weak, peeling, and cracked fingernails
- ⇒ Acne

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⇒ Iron deficiency
⇒ Chronic intestinal parasites or abnormal flora
⇒ Undigested food in stool
⇒ Chronic Candida infections
⇒ Upper digestive tract gassiness

DISEASES ASSOCIATED WITH LOW GASTRIC ACIDITY

- Addison's disease
- Asthma
- Celiac disease
- Chronic autoimmune disorders
- Chronic hives
- Dermatitis herpetiformis (herpes)
- Diabetes
- Eczema, Psoriasis
- Gall bladder disease
- Grave's disease
- Hepatitis
- Hyper- and hypothyroidism
- Lupus
- Osteoporosis
- Pernicious anemia
- Rheumatoid arthritis
- Rosacea
- Sjogren's syndrome

SELF- TESTING

BAKING SODA CHALLENGE TEST

1. Put 1⁄4 teaspoon into 4 oz of water.
2. Drink on an empty stomach (best first thing in the morning or at least 3 hours after a meal).
3. Make observations over the next 5 minutes. If you have adequate gastric acid, you will be burping.
4. HCl + sodium bicarbonate (NaHCO3) = CO_2 gas = burping.

HCL HOME TEST

1. Begin by taking one 350-750 milligram capsule of betaine HCl with a protein containing meal. A normal response in a healthy person would be discomfort---basically heartburn. If you do not feel a burning sensation, at the next protein containing meal, take 2 capsules.
    - *One good supplement option is Thorne Brand – Betaine HCL & Pepsin*

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2. If there are no reactions, after 2-3 days you can increase the number of capsules. However, if you are getting good relief and feeling like your BM's are improved and you are digesting your food better….then you will want to stop at this dose.
3. I typically recommend a dose of 2-4 capsules for most with moderate- severe hypochlorhydria, but some may go up to 6 capsules at a time if necessary short term. Build slowly to a maximum of 4-6 capsules with each meal. Listen to your body. You'll know you've taken too much if you experience tingling, heartburn, or any type of discomfort including feeling of unease, digestive discomfort, neck ache, backache, headache, fatigue, decrease in energy, or any new odd symptom. If you are uncomfortable you can neutralize the acid with 1 teaspoon of baking soda in water or milk.
4. Cut back by one capsule per meal, if you experience tingling, burning, or any other type of discomfort. If the discomfort continues DISCONTINUE the HCl and consult with your health care professional. These dosages may seem large, but it is usually not necessary to exceed 2-4 caps for most people. Some practitioners may encourage increasing until you have burning…I do not since these high doses can impact the gut lining. Often good results can be achieved with lower dose and practicing good eating mechanics.
5. Once you have established the right dose for you, continue this dose. If you have no improvement after 2 weeks, stop the HCL.
6. With smaller meals or liquid meals, you may require less HCL or no HCL.
7. Individuals with moderate HCl deficiency generally show rapid improvement in symptoms and have early signs of intolerance to the acid. This typically indicates a return to normal acid secretion and the HCL capsules can be discontinued.
8. Individuals with very low HCl/Pepsin typically do not respond as well to supplements, so to maximize the absorption and benefits of the nutrients you take, it is important to be consistent with your HCl/ Pepsin supplementation.
9. Instead, you may benefit from a dual digestive enzyme that contains support for first phase digestion with HCl/Pepsin **AND** enzymes. Example: OrthoDigestzme by OrthoMolecular brand.
10. Once your levels return to normal and you address other imbalances or nutrient insufficiencies, then you will want to cut back or stop your supplementation. Work with your healthcare practitioner to find the best intervention for you.

PRECAUTIONS: Administration of HCl/Pepsin is contra-indicated 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.

When you have adequate HCl, you will have good absorption of all your nutrients and can then watch the rapid regeneration of health in every brain/body system☺!

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