Guidelines for Self Testing Of Stomach Acid

Why Is Stomach Acid Important?

Stomach acid (hydrochloric acid or HCl) is important for a number of actions in the body. These include assisting with:

- the digestion of protein;
- keeping the stomach sterile by killing any pathogens that are swallowed;
- preventing bacterial or fungal bugs from growing in the small intestine;
- stimulating some digestive processes like bile flow and release of digestive enzymes from the pancreas;
- helping with the absorption of several nutrients including folic acid, ascorbic acid (vitamin C), beta-carotene, non-heme iron, and some forms of calcium, magnesium, and zinc.

Given its widespread role in health, it is no wonder that impaired stomach acid secretion is seen in a wide variety of clinical conditions. Low levels of stomach acid are associated with:

- Gastrointestinal symptoms like bloating, heartburn, indigestion, gas, poor appetite, prolonged fullness after eating, constipation and diarrhoea.;
- Autoimmune diseases (like ulcerative colitis, celiac disease, Type I diabetes);
- Degenerative diseases (like arthritis).

It is also known that stomach acid production declines as you get older. In fact, it is believed that the majority of people over the age of 65 years, do not make enough stomach acid.

While the underlying causes leading to impaired or complete lack of stomach acid secretion are not well understood, long term supplementation is safe and may be effective in certain patient populations and clinical conditions.

However, in a few people the opposite may be true. That is, they may produce too much stomach acid. Therefore, it is important to know what category you are in before taking any stomach acid supplements. With all tests, if you are taking stomach acid-lowering medicines, then this can skew the results of the tests.
Home Testing For Stomach Acid:

The only 100% accurate test for stomach acid is to use the Heildeberg Stomach Acid test. This test is costly and it requires you to swallow a pH meter in the form of a capsule.

Home testing involves either a sodium bicarbonate test or a betaine HCl test, either of which you can do yourself. Unfortunately, neither of these tests is 100% reliable, but they can give you an indication of your stomach acid levels especially if you repeat the test for several days in a row and take an average of the results.

1. Sodium Bicarbonate (Baking Soda) Test:

This test involves you drinking a baking soda solution which reacts with the hydrochloric acid in your stomach to produce carbon dioxide gas that causes burping. If you have no hydrochloric acid, you will not burp or it will take you a long time to burp.

Instructions:

1. Mix 1/4 teaspoon of baking soda in about half a cup of cold water first thing in the morning before eating or drinking anything.
2. Drink the baking soda solution.
3. Time how long it takes you to belch. Time up to five minutes.

If you have not belched within five minutes stop timing.

In theory, if your stomach is producing adequate amounts of stomach acid you’ll likely belch within two to three minutes. Early and repeated belching may be due to excessive stomach acid (but don’t confuse these burps with small little burps from swallowing air when drinking the solution). If you do not belch until after 3 minutes, then this indicates you likely have a low acid level.

Because the time frames can vary person-to-person, as well as how they drink the solution, this test is only a good indicator that you might want to do more testing to determine your stomach acid.

2. The Betaine HCl Challenge Test

You will need a source of Betaine HCl to perform this test. You can buy betaine from pharmacies and natural health stores. A word of caution, if you have ulcers in your stomach or gastritis, then taking betaine can irritate the stomach lining. So don’t do this test if you have these problems or are at high risk of these problems.

1. Eat a high protein meal which should include at least 150g of meat (about 1 and a half times the size of the palm of your hand).
2. In the middle of meal take 1 Betaine HCl capsule.
3. Finish your meal as normal and pay attention to your body.
If you don’t notice anything after the meal, it indicates that you may have low stomach acid levels. On the other hand if your stomach starts to feel uncomfortable, including feelings of heaviness, burning, or hotness, then these are signs that you don’t have enough stomach acid.

3. Apple Cider Vinegar Test

Take 1 teaspoonful of apple cider vinegar in about half a glass of water.

If stomach pain develops straight away, then you likely have insufficient stomach acid. This can be very uncomfortable, so drink a glass of water to dilute the apple cider vinegar and wash the pain away.

If no stomach pain develops, then you have plenty of stomach acid.

**Interpreting the results:**

Take the results of your test to your health practitioner to assist you to interpret the results and to help you to plan an appropriate course of treatment. This will vary based on your other physical symptoms and any other information that you and your practitioner have obtained.