

# Hydrochloric acid challenge

**What will you need:** Purchase a supplement containing the ingredient “Betaine HCl” in tablets or capsules with 600-700 mg HCl per tablet or capsule. If you are really nervous about this test, we are able to special order 100 mg tablets. This means the test will just take much longer. (We carry all of the above supplements at the clinic.)

**What will you be testing?** We are looking at improving your digestion by giving you hydrochloric acid. Normally your parietal cells make their own hydrochloric acid. For a variety of reasons, you may find your stomach doesn't make enough hydrochloric acid. If you do not produce enough, this test will show your symptoms start to decrease as you increase your dosage with each meal. If you are taking too much hydrochloric acid, you will experience a warming sensation that should only last for less than an hour. If you experience a more intense warming sensation for more than an hour, you can try and dilute it down by using luke warm water. If that doesn't work, you can neutralize the acid with a base/alkaline substance. One good substance is baking soda (sodium bicarbonate). All you need to do is take a teaspoon of baking soda and mix it in a small amount of water and drink it down. The alkaline solution should neutralize the acid.

**Important:** We are running an experiment. The challenge with an experiment is that we need to control variables. One of the variables that will confuse the results of this test is “size of meal.” So increasing your dosage may mean either taking more pills with the same size meal, or taking the same amount you took last time except with a smaller meal. Hydrochloric acid is a strong acid that chemically breaks down food. It primarily works to break down proteins. Consequently, if you are eating a banana or grapefruit for breakfast, you really shouldn't need any pills to help digest that meal (unless you feel worse when you don't supplement those types of meals).

**Also Important:** We want the pill(s) to mix with the food. Take the pill(s) either just before you start eating up to the middle of the meal. If you eat a full meal and then take the pill(s), there's a chance that will sit on the top of all the food and an increased chance that it will back up into the esophagus (heartburn). If you forget to take the pill(s) until you're done eating, then skip it.

**Meal 1:** take 1 Betaine HCl tablet/capsule with a normal sized meal

If no warming... **Meal 2:** take 2 tablets/capsules

If no warming... **Meal 3:** take 3

Continue until you get the warming sensation or until you reach six tablets per meal. Once you get the warming sensation, reduce your dose by one, and that will be your dosage for a normal sized meal. You are expected to vary the amount from there based on the size of the meal. For a “Thanksgiving-sized” meal, you may want to increase your dosage by one. For a smaller meal you may want to decrease by one.

**\*\*If weeks/months/years later you start getting warming at your “correct” dosage, your stomach may be starting to make more of its own hydrochloric acid. Reduce your dosage by one each meal until you can take a dosage without the warming.**

If you need a large number of Betaine HCl supplements to experience the warming, it is an indication that you are perhaps not producing enough stomach acid of your own. More than likely you have food allergies/sensitivities that are irritating the stomach's hydrochloric acid producing parietal cells. Eliminating those foods will stop the stomach inflammation and eventually help your body start making its own hydrochloric acid again.

**\*\*\*This test is helpful but like any test is not 100% accurate. If your testing goes differently than above, you need to seek help from a good alternative health care practitioner who can help diagnose what might be helpful for you. Other tests that can measure actual stomach acid production are the Heidelberg pH Test and the Stomach Acid Test using gastrin injection.**