

## Reduce Heartburn, Gas, And A Bloating Feeling In The Stomach By Boost Digestion with Hydrochloric Acid(HCl) And Pepsin

The way that you boost digestion with Betaine HCL is by the production of pepsin, a digestive protease enzyme produced by the lining of the stomach. The pepsin is produced by the action of hydrochloric acid on pepsinogen, a substance secreted by again by stomach cells. The function of pepsin is to break proteins down into smaller molecules that are easily absorbed by the body during the digestive process.

Betaine hydrochloride can supplement the normal HCl levels of the body, particularly in the elderly where hydrochloric acid production is generally reducing. In order to explain this more fully, let us first have a closer look at the human digestive system, and why hydrochloric acid is so important.

The second that food enters your mouth, or anything else for that matter, your digestive process gets going. The digestive enzymes can't tell the difference between what you are using as food, and what is not food. If you stick your finger in your mouth enzymes in your saliva will start to break down any starch on your finger, but don't worry: your saliva enzymes will not digest your finger, though would if they were able to.

Digestive enzymes are molecules that act as catalysts for biochemical reactions that break large molecules down into smaller ones that the body can more easily handle. Each enzyme has a specific job to do, and if even one of them is not on the ball then your whole digestive system can fall apart. The results could be relatively minor such as indigestion or heartburn (though not minor to you), or more serious such as ulcers, irritable bowel syndrome or Crohn's disease.

However, back to the topic. You have to chew your food well so that it is mixed up properly with the enzymes in your saliva, and also to render it into a size that is not only easily swallowed, but also easily broken down in the food processor that is your stomach. The purpose of your stomach, other than storing food for further digestion, is to carry out the process of protein digestion through the action of pepsin that we now know depends upon hydrochloric acid for its production.

Many people mistakenly believe that the acid in your stomach 'dissolves' the food as it dissolves some metals. In fact this is not the case, and its purpose is in enzyme production. In fact your stomach generally operates under alkaline conditions, not acidic, which is why it reacts so badly when its pH is too low. In the absence of sufficient HCl you can suffer from various digestive problems such as heartburn.

The stomach turns your food into a soupy consistency that passes into the small intestine. This is a 23 foot long tube of three parts where most of the digestion and absorption of your food takes place. Contrary to popular belief, for example, the bile is not secreted into the stomach but into the part of the small intestine known as the duodenum. You might have heard the term 'duodenal ulcer'. This is not a stomach ulcer, but one of the small intestine.

The function of bile is to emulsify fats so that they are easily broken down by the enzymes produced by your body for that purpose. Other enzymes break down the other constituents of the food that you eat. The jejunum is the second part of your small intestine, and is where most absorption of the nutrients you consume occurs. Water soluble nutrients such as vitamin C and most minerals pass into your bloodstream, while the fat soluble nutrients such as vitamins A and E pass into your lymphatic system. Absorption is then completed in the third part, the ileum.

Your food, or what is left of it, then passes into the large intestine, or colon. The colon absorbs water from the mush that is left, and then passes the residue out of your body. There are many other parts of your body involved in the digestive process, including your liver, pancreas and your kidneys. However, the above are those that are generally regarded as being the major parts of the digestive tract.

As you age, your biochemistry slows down, and your body produces less saliva and fewer and fewer enzymes and other chemicals needed for it to function effectively. This can result in indigestion and poor assimilation of food, and hence various health problems associated with partial malnutrition. This might not be resolved by the intake of vitamin supplements, since they too have still to be absorbed by the body.

So, having digested all of these facts as they say, let's return to the stomach where hydrochloric acid does its work. It is the stomach that we are most interested in when discussing hydrochloric acid. That is the acid that gives you 'acid' reflux, but it is not always responsible for heartburn and indigestion. It has already been referred to that your body tends to produce less hydrochloric acid as it ages, but there are also other reasons for this condition known as achlorhydria or hypchlorhydria.

Among them are excessive use of antacids that neutralize the hydrochloric acid in your stomach, and drugs designed to have the same effect. Some infections can lead to the condition, such as the helicobacter pylori bacterium that reduces gastric acid secretion by the stomach in order to that it can survive. Pernicious anemia and radiation therapy can also lead to a reduction in HCl production as can some forms of autoimmune disorder.

Low levels of HCl in your stomach can cause symptoms such as wind, a bloated feeling, digestive pain and the symptoms of heartburn. This is because unfriendly bacteria can get a hold in your stomach due to them not being killed off by your strong stomach acid. In that case, taking alkaline antacids can make your symptoms worse!

Since the purpose of hydrochloric acid is to release pepsin from pepsinogen, and also to kill off some stomach bacteria, then its absence is undesirable. Betaine HCL can overcome this deficiency by producing hydrochloric acid in your stomach, and its use as a supplement is particularly recommended in the aged. However, that is not the only age group that should use Betaine HCL, and anybody who suffers from chronic digestive problems or symptoms could likely benefit from this treatment.

### About the Author

More information on [HCl with pepsin](#) for digestion is available at VitaNet &reg;, LLC Health Food Store. <http://vitanetonline.com/>

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