

# EHC-D NEWSLETTER

## ***The Five B's: Burping, Belching, Bloating, Burning and Bad Breath Symptoms of poor digestion and simple solutions for them!***

***Part 2 by Dr. Ron Overberg***



From your mouth the food goes down through a tube called the esophagus into the stomach. The stomach's primary job is to break down proteins into single amino acids, di- or tri-peptides and other short amino acid chains. Some proteins are composed of several intertwined chains, each can be more than a thousand amino acids long! They are too big to be absorbed and if your stomach did not break them down they would pass straight through your body. Now that would be a waste of money! The stomach lining has special cells: some of which secrete acid, some secrete special protein digesting enzymes and some secrete mucus to protect the stomach lining from the acid so it does not digest itself. Why do we need this acid? Well, acid denatures (unfolds) proteins. Have you ever put both milk (a protein) and lemon juice (an acid) in your tea?

The lemon juice curdles (unfolds) the milk. When these amino acid chains are unfolded the enzyme **pepsin**, which is secreted by the stomach lining, can come in between the amino acids and clip the chains into smaller pieces.

This very important enzyme, pepsin, is a protein molecule and thus made out of amino acids. *It is made up of the very same substance it digests.* If your digestion is poor and you're suffering from burping, belching and/or indigestion you will not digest the very food that you need for improving your digestion. For years I have solved this problem by using **Betaine HCL and Pepsin supplements** (to support normal stomach functioning) and pre-digested proteins supplements (as a time release source of **free form amino acids**).

What if you are suffering from mineral deficiencies such as: cramps, anemia, leg aches, twitching muscles, spasms or osteoporosis. Can those be related to a poorly functioning stomach? **ABSOLUTELY!** The absorption of calcium, phosphorus, iron and magnesium is dependent on a normal level of gastric acidity created by the presence of hydrochloric acid (HCL) in the stomach. HCL also activates pepsinogen to make the protein digesting enzyme pepsin. *Try some Betaine HCL with your meals to dissolve the minerals out of your food.*

When you eat carbohydrates and fats your stomach does not get as acidic as when you eat protein foods because carbohydrates and fats are digested further down the digestive tract. The food in the stomach is churned with digestive juices into a solution called **chyme**. This acidic chyme leaves the stomach slowly and enters the duodenum (the first part of the small intestine). When chyme enters the duodenum, little hormone messengers (peptides) are sent to the pancreas and gallbladder telling them to release their digestive solutions. These are alkaline solutions which neutralize the acid chyme. This protects the lining of the intestinal tract so we don't end up with a duodenal ulcer.

The gallbladder contributes bile which emulsifies the fats in the chyme. Think of bile as the dishwashing liquid that you squirt into a sink loaded with greasy dishes. What does the soap do? It breaks apart the grease. This

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emulsification allows a special fat digesting enzyme, **lipase**, can get in and clip the fats into individual fatty acids which can be absorbed. The pancreas secretes enzymes which clip the protein pieces into individual amino acids, break carbohydrates down into individual sugar molecules and fats into fatty acids. Yes, all carbohydrates and starches are broken down into sugar but depending on the food this breakdown may take shorter or longer. Eating straight sugar requires no digestion so it zooms into your blood stream followed just as quickly as white flour products. If you don't digest your fats and carbohydrates very well you'll have massive gas production, bloat up and your friends will shun you.

*If this sounds like you, this is where digestive enzymes will save you. Just experiment to see how many you need. Different meals will require different amounts. If you eat twice as much food, you'll need twice as many enzymes! If you have too many liquids with your meal or don't chew well you'll need more. Don't forget, the trigger for the release of your own pancreatic enzymes is your stomach acid so don't dilute it with liquids during a meal. If you need enzymes all the time you probably don't produce enough stomach acid.*

All enzymes are made out of amino acids so remember: 1) *You'll need to have good protein and plenty of HCL and pepsin to make enzymes* 2) *If you take any pancreatic enzymes (protein molecules) your stomach will do its best to digest them and so they may never reach the intestinal tract where you need them.* This is why the healthier you get, the less benefit you generally get from taking extra enzymes. **One way around this is to use enzyme tablets that have an enteric coating (Karuna's "Duozyme" or GNLD's "Enzyme Digestive Aid").** The coating protects the tablet while it is in the acidity of the stomach and when the tablet has safely passed into the alkaline environment of the intestine, the coating breaks down and all the pancreatic enzymes are safely delivered where they are needed. This will make a difference for your digestion and for socializing with your friends!!!

A good starting point to prevent digestive upset in the stomach and intestine is to take one tablet with each meal that potentially can cause you discomfort. Increase tablet amounts for larger meals. Result: more enjoyment and more absorption for your food dollar!!

How do you find out if you have good digestion? **One way is to do a stool analysis. More info at: [www.diagnostechs.com](http://www.diagnostechs.com) look under: "Tests and Panels" or go to [www.gdx.net](http://www.gdx.net) and look under Tests / Gastrointestinal.** These tests look for undigested foods in your stool. Another way is look at the levels of the various vitamins, minerals, amino acids and other co-factors in your blood or other tissues. ***Bottom-line is if you are eating right and think your digestion is right but you don't feel right then something is probably not right. For a more in depth understanding of your digestion, call for a consultation.***

(To be continued)