A healthy digestive system is the foundation to good health and digestive enzymes are the key ingredients. With the exclusion of air and water, everything we need to sustain life must be ingested, digested and absorbed. Before food can be absorbed it must be fully broken down to its smallest components. Digestive enzymes are responsible for that task. You can eat a very healthy diet and take lots of nutritional supplements but if you have an insufficiency of digestive enzymes your body will not be able to break down and absorb the nutrients. There is a saying, you are what you eat, but a more accurate statement would be, you are what you absorb. If you suffer from gas, bloating, uncontrollable burping, heartburn, irritable bowel syndrome, or constipation, you are most likely insufficient in digestive enzymes.

What are Enzymes?

All living things—plants, animals, and humans—require enzymes to be alive. Enzymes are involved in every single body process. Without enzymes you couldn’t read this paper, think, sit up in a chair, or digest your supper. They are so important that when quantities drop and activity levels fall illness is not far away. Scientists have discovered over 3000 enzymes. Each one has a different job. Enzymes act as natural catalysts causing a chemical change without themselves being affected. Most enzymes work by taking bonds apart. For example, in order to digest last night’s supper certain enzymes in the gastrointestinal tract break apart protein, while another works on carbohydrate and still others digest the fat in our meals. Enzymes are very specialized, usually working on only one kind of substrate and in a very specific way. Enzymes are composed of amino acids. There are six main groups of enzymes, each having different activities, the class of enzymes known as hydrolasas aid in digestion and fight inflammation. Enzymes need help to perform their chemical reactions in the form of coenzymes and cofactors—substances that must be present for an enzyme to function. Zinc, magnesium, copper, and calcium are some cofactors. Coenzymes are organic substances that combine with inactive enzymes to form an active enzyme, the B vitamins and vitamin C act as coenzymes. Enzymes are present in raw fruits and vegetables. These enzymes are responsible for food ripening and they also help digestion when food is eaten, reducing the burden on the digestive system. Prior to the industrial age people ate a more natural diet filled with fresh, raw fruits and vegetables, which provided a good supply of enzymes. Today’s diet is a different story; most of the foods eaten are cooked, processed, genetically altered, pasteurized, baked, frozen or canned in order to increase shelf life. Any one of these events destroys the live enzymes that should be present in our foods. Even when raw foods are eaten they have usually been grown with the aid of pesticides and they have been shipped great distances and sat in store produce departments and them in our refrigerators until it is difficult to use the term “fresh” in association with them. This too destroys the naturally occurring enzymes. When food enzymes are missing, our body is forced to produce all the enzymes necessary for digestion putting stress on the digestive system. The first clue we are deficient in digestive enzymes is digestive distress, experienced as heartburn, indigestion, gas, bloating and constipation. If you have been eating a healthy diet and taking supplements and you still don’t feel well this also is an indication for enzyme supplementation. To aid digestion, enzymes should be taken just before or with meals.

The Digestive System

Our digestive system is a group of organs that do a wonderful job of digesting and absorbing what we eat while at the same time protecting us from many of the bacteria we ingest along with our food. Unfortunately most of us do not give much thought to our digestion until something goes wrong. Gastrointestinal problems are among the top ten symptoms people visit a doctor for. If you take a look at the pharmacy shelves packed with medication for turning off acid, stopping gas, relieving heartburn and indigestion, and easing constipation and think about all the advertising dollars spent to promote these products, you will begin to see how many dollars are being spent to relieve gut problems. The very acid that these products promise to shut off is the same acid that our
bodies must have in order to digest our food. Standard medical treatment for most digestive problems masks the symptoms but does not really treat the problem. That sets up the scenario where Sherry Rogers, M.D. says, “The sick get sicker, quicker with medicine.”

The gastrointestinal tract starts at the mouth and ends at the rectum, including everything in between. Digestion is a step-by-step process where one step is necessary to initiate the next process. The various organs of digestion produce different enzymes and each enzyme is critical for that phase. The way this process works is that the ingestion of protein stimulates the production of hydrochloric acid in the stomach. The hydrochloric acid is necessary to activate the enzyme pepsin. Without hydrochloric acid pepsinogen will not convert to pepsin, the active enzyme. Pepsin is involved with protein digestion. After leaving the stomach, the acidic chyme (what the stomach contents are called after being acidified, further broken down and mixed with water) is necessary to activate the secretion of the alkaline enzymes secreted by the pancreas. Reducing acid in the stomach by taking antacids actually sabotages the whole digestive process.

The Hyperactivity Myth
Heartburn, rather than a symptom of too much stomach acid, is actually an indication of not enough acid according to Sherry Rogers, M.D., author of No More Heartburn, Stop the Pain In 30 Days-Naturally. Dr. Rogers explains that poor quality food eaten too quickly and in amounts that are too much for the stomach to handle along with an insufficiency of digestive enzymes are the actual causes of heartburn. She recommends starting with healthy food choices, chewing your food well, adding digestive enzymes and limiting or stopping caffeine, alcohol, and cigarettes.

Common causes of heartburn include overeating, stress, certain medications, smoking, enzyme deficiencies, food allergies, and insufficient water intake.

About 90 percent of people having an Amino Acid Panel at The Pain & Stress Center show up with digestive insufficiency indicating the need for supplementation of enzymes. We seldom think of digestive problems as something affecting children, and yet with testing we find the majority are deficient. At the Pain & Stress Center we have observed that including digestive enzymes along with a nutritional program improves the results of supplementation.

According to Michael D. Gershon, M.D., author of the Second Brain, serotonin receptors are present in our gut. Research shows 90% of our body’s serotonin is produced in our gut where it functions as a neurotransmitter. Dr. Gershon’s book shows our gut functions, as it’s own complete nervous system, separate from the brain. The enteric nervous system, as this is known as, uses all the same neurotransmitters that are found in the brain. Having this information it makes perfect sense why our stomach gets upset and has a hard time digesting when we are under stress or anxious.

Nutritional Support Program:
Add one Super Pancreatin 650 (SP650) three times a day with meals. If you still have problems increase to two SP650. Children can take Natural Enzymes for Children.

Mag Link – two in the morning and two in the afternoon. Magnesium acts as an enzyme cofactor and magnesium chloride is the most bio-available form.

Cal Mag Zinc – four at bedtime to ensure adequate cofactors. Children up to 100 pounds, two at bedtime or one tablespoon of Cal-Mag Liquid.

Vitamin C – this should be taken in the form of Ester C, a totally neutral ph C that does not cause stomach upset. Take 1,000 mg. in the morning and in the evening.

B Complex – capsule form; one every morning with food. If you have bouts of diarrhea use one or two scoops of Glutamine Powder in water or fruit juice daily.

For stress and anxiety take two Mood Sync or two Anxiety Control morning and evening. Mood Sync is the serotonin link.

L-Theanine – If your stomach is upset or you are anxious, open a capsule of L-Theanine and put it in warm water and drink it a few minutes before eating.

REFERENCES:

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