



A TRANSFORMATION WELLNESS FACILITY

COMPLEMENTING HEALTH WITH DIGESTIVE ENZYMES

by Lisa Helffrich, RD, LD

According to the Vice President of a major enzyme manufacturing facility, supplemental enzyme sales have risen significantly over the past five years. This increase is not surprising. It makes sense. Nutrition professionals and enlightened consumers are waking up to the fact that we are a mal-digesting society. It makes no difference if we are eating right. If we are not also digesting right, disease and ill health are still bound to happen.

Every biochemical reaction is driven or controlled by the presence of energy-rich protein molecules known as enzymes. Enzymes, as catalysts, increase the rate at which a reaction reaches equilibrium and, like other catalysts, are not changed during the reaction. Digestive enzymes break down the food we eat into a form the body's cells recognize and can use. Supplemental digestive enzymes can therefore enhance the bioavailability of the nutrients we ingest. The benefits include overall improved nutritional status, resulting in enhanced immune function, decreased allergic reactions, and better elimination of toxic waste.

As health-conscious people, we can agree on the importance of proper nutrition. But how do we define nutrition? Nutrition is not simply limited to the choice of good food or high quality supplements. One must also digest, absorb, and transport those essential nutrients and then eliminate waste in order for the body to truly benefit from good food. So does it not therefore make sense to assist, support, and enhance the digestive system?

What happens when proper digestion does not take place? Nutrients are not released from the food we eat and are not made available to our bodies for repair, maintenance, or creation of new healthy cells. What happens to these poorly digested foods? Carbohydrates ferment, proteins putrefy, and fats turn rancid. This toxic material is what initiates the degenerative process. Plus, unfriendly microorganisms thrive on poorly digested matter and their metabolic by-products often become free radicals.

Maldigestion also leads to an alteration in pH, further supporting the proliferation of unfriendly microorganisms. An increase in free radicals and a change in pH eventually lead to changes in the genetic makeup of the cell. Initially, this condition can be expressed through flatulence, indigestion, allergies, fatigue, or constipation, to name only a few. But, over time, as the chemistry of the cell begins to change, we see the manifestation of chronic disease.

Disclaimer: BioDézyne Centers neither diagnose nor treat disease. Our goal is to make nutritional recommendations that assist individuals to find a healthy balance. If you have specific questions or for technical assistance, please contact us.

The reasons for maldigestion are numerous. They can include the following:

- Aging
- Stress
- Not properly chewing our food
- Consuming cooked or processed (i.e., enzyme-free) food
- Consuming food subjected to genetic engineering and pesticides
- Breathing polluted air
- Taking medications

The list goes on and on. Our liver, kidneys, colon, skin, and lungs are under a tremendous load to eliminate toxins. Ultimately, the immune system will be compromised. Given the fact that 80% of all disease begins in the gut, shouldn't we be looking at the digestive system and addressing the need for digestive enzyme supplementation? So why aren't we? The three most common areas of misinformation are contained in the following myths:

- Supplemental enzymes are destroyed in the stomach.
- We make all the digestive enzymes we need.
- If we supplement with digestive enzymes, our body will not make its own.

Let's take on each of these statements and see what the truth really is. The first argument against taking supplemental digestive enzymes is that they are destroyed in the acid environment of the stomach. Most enzymes are active only within a fairly limited pH range, and they have an optimum pH at which their activity is greatest. Within the digestive tract, this ranges from very acidic (pH 3.0) to alkaline (pH 8.0). It is true that extremes in pH may radically alter enzyme structure and thus denature the enzyme. However, there are some enzymes that are acid-resistant and can function in a much broader pH range, making them ideal for supplementation in the digestive system. The Wright State Study is a literature review explaining the survival of enzymes through the gastrointestinal tract.

The second argument is that the body makes all the enzymes that are needed and supplemental digestive enzymes are therefore not necessary. This may be true for a select few individuals, but not the majority. Why? For one reason, we are all genetically different and our digestive capabilities will therefore vary. Secondly, as we age, production of endogenous enzymes decreases, and so the need for supplemental enzymes increases. As mentioned above, stress, the consumption of processed food, and the intake of medications are other factors that contribute to the problem. This is evidenced by the growing incidence of digestive disorders. In 2007, the NIH reported that Diabetes type 2 alone is costing us over \$174 billion dollars. In addition Diabetes affects 186,300 people younger than 20 years, add to this horrific costs of the other various digestive disorders which range from constipation through IBS where the cost is well over \$107 billion.

The third argument is that taking supplemental digestive enzymes causes the pancreas, liver, and other digestive organs to stop producing digestive enzymes. However, if we examine the mechanism that stimulates pancreatic enzyme secretion, we will see that this simply does not occur. In fact, the use of supplemental digestive enzymes actually enhances the work of the digestive organs. As we grow older, the production of hydrochloric acid decreases. This consequentially causes a decrease in the hydrolysis of proteins and poor stimulation of gastrointestinal hormones. The final result is insufficient secretion of pancreatic enzymes. The need for supplemental enzymes should be obvious.

Let's go back to the basics and examine what we know. As a nutrition consultant, I encourage clients on a daily basis to reduce stress and maintain a positive spiritual attitude. I stand on my soap box touting the importance and benefits of exercise. I also assist and educate my clients on how to make better food choices for their health. But most importantly, I explain and recommend the use of supplemental digestive enzymes. Despite our efforts to change the dietary and lifestyle habits, there will always be a need for supplemental digestive enzymes. If you truly want to improve the nutritional health of your clients, I encourage you to learn more about this subject.

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