From our good friends at **Back to Herbs**
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Dear Health Enthusiast:

Enzymes...something you can't live without!

Years ago, when I entered the natural health field, I had no idea that enzymes were the "key to life!" I once heard a speaker at an Untold Truth Seminar state that their family passed the "food enzymes" like most families pass the salt and pepper. This comment made me start thinking about the importance of this classification of supplements. I am a Midwest farm girl and, even though I am a great cook, the salt and pepper is pretty important! Life after dinner is a much more pleasant experience now that we have begun to pass the food enzymes!

The education I received from my up-line manager when I first began went like this...How to decide between the basic digestive enzymes...food enzymes and proactazyme plus. Well, if they are primarily "meat eaters" then food enzymes should be used...if they are more into fruits and vegetables then the proactazyme plus. If the client has had their gallbladder out take the hi-lipase in addition to one of the above basics. Oh yeah...if they are lactose intolerant, then lactase plus should be used as well. At that point in my natural health career, I just took her word for it.

It wasn't until a few months ago that I gained a full appreciation for what NSP Food enzymes were capable of doing. I have been an RN for many years, and my education was based on the use of prescription medications to attempt to alleviate symptoms. My eleven year old daughter woke up in the middle of the night screaming, "my heart hurts!" I tried to calm her with no avail. At that point, my traditional medical background kicked in and I called the Emergency room and asked what they would suggest. Before taking her in, I gave her 2 (two) Proactazyme Plus. She continued in excruciating pain so we went to the ER. About 45 minutes later, when the on-call emergency room doctor arrived, Kassie as dancing around the ER waiting room looking at the pictures on the wall. After examination, the doctor stated that what we had done must have worked. He couldn't find anything wrong with her. She carries these in her purse now and takes them when she needs them. She even took them to camp with her this past summer.

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NSP has 9 products on the master price list in the ENZYME section. They are as follows: FOOD ENZYMES, HI LIPASE, LACTASE PLUS, NATTOZIMES PLUS, PDA COMBINATION, PROACTAZYME PLUS, PROTEASE PLUS, HIGH POTENCY PROTEASE, and SOD W/GLIADIN.

The purpose of this E-flash is to review the basic definition of the 3 types of enzymes. In the next E-flash, we will discuss the various enzyme products that NSP has to offer and how to determine when each might be used.

Enzymes are used throughout the world in various ways in different types of industry. We are looking at the role they play in the human body. One might think of them like the spark plugs in a car...without them, the car won't run!

Enzymes can be defined as complex proteins that cause a specific chemical change in other substances without being changed themselves. Enzymes are found in every organ of the body

substances without being changed themselves. Enzymes are found in every organ of the body. For example, they can change starches, proteins, and sugars into substances the body can digest. Blood clotting is another example of enzymes at work. Enzymes exist in the mouth (saliva), stomach (gastric juice), and intestines (pancreatic juice, intestinal juice, and intestinal mucosa) according to healthline.com. (1) In the medical field today, enzymes are used as oncolytics, anticoagulants, thrombolytics, anti-inflammatories, fibrinolytics, mucolytics, antimicrobials, and digestive aids. (2)

It is amazing to realize that "as early as the late 1700's and early 1800's, the digestion of meat by stomach secretions and the conversion of starch to sugars by plant extracts and saliva were known." (3) Even though it was discovered that there was some sort of process occurring, the 1878 German physiologist Wilhelm Kühne (1837–1900) first used the term enzyme, which comes from Greek word "in leaven", to describe this process. The word enzyme was used later to refer to nonliving substances such as pepsin, and the way in which this change took place was not understood. As the years progressed, discoveries mounted and"...in word ferment used to refer to chemical activity produced by living organisms." (4) Today, enzymes have been categorized in 3 types of enzymes, of which the human body produces 2 of these, the metabolic and digestive.

Metabolic enzymes are the ones that cause the organs and systems of your body to function. They speed up the chemical reaction within the cells for detoxification and energy production. They are heavily involved in our immune system, in particular there are many different kinds of enzymes in the white blood cells alone.

Digestive enzymes are secreted along the digestive tract to break down food into nutrients and waste. This allows nutrients to be absorbed into the blood stream and the waste to be discarded.

Food enzymes are the ones introduced into the body by the raw foods we eat. They are contained directly in the food and assist in the digestion of that food. It is important to remember that when foods are heated to above 129 degrees farenheit, the enzymes are killed, thus the food becomes “dead!” (3)

One topic that must not be overlooked is that of enzyme inhibitors. These are "molecules that bind to enzymes and decrease their activity. Since blocking an enzyme's activity can kill a pathogen or correct a metabolic imbalance, many drugs are enzyme inhibitors. They are also used as herbicides and pesticides."

It is important to note that when prescription medications are taken with meals, they might be decreasing the effectiveness of the enzymes within the foods. Given the amount of “dead” food that is consumed in the United States on a daily basis, it is not surprising that there are so many disease processes linked to the lack of enzymes in the human body. It could be suggested that every time food or nutritional supplements are ingested, some type of supplemental enzymes should be taken. Works Cited: Bibliography Available Upon Request

Look forward to an overview of the NSP Enzymes on the market and when and how they can be utilized for better heath. And remember...Pass the enzymes!

Health to You...
Chris Ritchason and Patti Keplinger RN BSN
with Dr. Jack Ritchason ND, PhD