

WHAT ARE ENZYMES?

Enzymes are a delicate lifelike substance found in all living cells whether animal or vegetable. Enzymes are energized protein molecules necessary for life. They catalyze and regulate nearly all biochemical reactions that occur within the human body. Enzymes turn the food we eat into energy and unlock this energy for use in the body. They cannot be seen with even the most powerful microscope, but their presence and strength can be determined by improved blood and immune system functioning. Our bodies naturally produce both digestive and metabolic enzymes, as they are needed. Surplus enzymes can be stored by some organs for later use or used as fuel for the brain.

Metabolic Enzymes speed up the chemical reaction within the cells for detoxification and energy production. They enable us to see, hear, feel, move and think. Every organ, every tissue, and all 100 trillion cells in our body depend upon the reaction of metabolic enzymes and their energy factor. Metabolic enzymes are produced by the liver, pancreas, gallbladder and other organs.

Digestive Enzymes are secreted along the digestive tract to break food down into nutrients and waste. This allows nutrients to be absorbed into the blood stream and the waste to be discarded. Human digestive enzymes include ptyalin, pepsin, trypsin, lipase, protease, and amylase. The body does not make cellulase, an enzyme necessary for proper digestion of fiber, so it must be introduced through the raw foods we eat.

Food Enzymes are introduced to the body through the raw foods we eat and through consumption of supplemental enzyme fortifiers. Raw foods naturally contain enzymes providing an exogenous source of digestive enzymes when ingested. However, raw food manifests only enough enzymes to digest that particular food, not enough to be stored in the body for later use. The cooking and processing of food destroys all of its enzymes. Since most of the foods we eat are cooked or processed in some way and since the raw foods we do eat contain only enough enzymes to process that particular food, our bodies must produce the majority of the digestive enzymes we require, unless we use supplemental enzymes to aid in the digestive process. A variety of supplemental enzymes are available through different sources. All bodily functions can be enhanced and improved by supplemental enzymes ingested orally in capsule or powder form. It is important to understand the differences between the enzyme types and make sure you are using an enzyme that will meet your particular needs. The following is a list of several types of enzymes offered in today's marketplace.

Pancreatin is a substance from the pancreas of the hog or ox containing enzymes. Pancreatin contains proteolytic enzymes, amylase, and lipase. However, it is only broken down in an alkaline setting of 8.0 to 9.0 pH. This occurs within the small intestine after carbohydrate and protein digestion has already taken place. Dr. Roy Dittinan suggests that pancreatic enzymes should not be taken during pregnancy or when using blood thinners. Pancreatin has been used successfully in Germany for fortifying the pancreas since it is a glandular compound. Pancreatin is not used in Enzymedica enzyme formulations.

Pepsin is a proteolytic enzyme usually prepared from the stomach of pigs and is the principle digestive component of gastric juice. It is usually given to those whose digestion of protein is impaired. However pepsin is only activated at a temperature higher than normal body temperature. Pepsin is not used in Enzymedica enzyme formulations.