About Enzyme Therapy

Enzymes are of three types: those derived from food, digestive enzymes, and metabolic enzymes.Food enzymes are abundantly present in all uncooked vegetables, fruits, and grains. They assist in the breakdown of the food in which they are present and perform other useful functions in the body.

Food processing commonly employed today destroys nearly all of the enzymes normally present in foods. Whatever enzymes may remain after processing at the factory are destroyed at home in the cooking process.Cooking by whatever means, except for very light steaming, will completely destroy all enzymes in food—even the foods that were enzyme-rich to start with.Destroying the enzymes in food places an extra burden on the second group, the digestive enzymes.These are normally made by the pancreas, which produces a specific digestive enzyme for the breakdown and assimilation of each type of food we consume—lipase digest or break down fats, amylase digest carbohydrates or sugars, and proteases or proteolytic enzymes digest different types of protein.Some familiar examples of proteolytic enzymes are the popular food supplements serrapeptase, bromelain, and papain.

Metabolic enzymes make up the third and most abundant group of enzymes in the body, and these function within the cell to regulate such activity as detoxification, oxygen utilization, and energy production, along with a multitude of life-sustaining and disease fighting functions.

There are over 3000 enzyme systems at work in the body. Performing a vast number of functions, these indispensable substances hold the keys to life. They assist greatly in the rebuilding of all tissues in the body by breaking down ingested protein into its component amino acids, which the body uses as building blocks for repair and rejuvenation. They attack waste materials in the blood and in the tissues, converting them into a form that can be readily eliminated, thereby acting as blood purifiers.

Raw foods are enzymatically rich, which means these foods have active enzymes within them to help digest 40 to 60% of that particular food. Cooked and processed foods are enzymatically dead or denatured, which means there are no active enzymes within that food to help with digestion of that food.

Enzymes also have an activating effect on the immune system and are believed to be an integral part of that system. Studies have shown that cancer is associated with severe deficiencies of many enzymes.

Leukocytosis is defined as an abnormally increased number of leukocytes, or white blood cells (WBCs), in the blood. The WBCs are the blood cells responsible for the immune response. According to **Dr. Paul Kouchakoff,** the major cause of leukocytosis is eating cooked foods. His research has helped us to understand what develops in the bloodstream when we eat cooked and processed foods.

Dr Kouchakoff’s findings:

- Raw foods produce no leukocytosis.
- Commonly cooked food cause leukocytosis
- Man-made, processed, and refined foods, such as carbonated beverages, alcohol, vinegar, white sugar, flour and other foods, cause severe leukocytosis,

and eating cooked, smoked, and salted animal flesh brought on violent leukocytosis consistent with ingesting poison

In summary, cooked and processed foods deny essential nutrients to the human body and contribute to illness.

Dr. Edward Howell was one of America's pioneering biochemists and nutritional researchers. His 50+ years of enzyme research shows that most physical problems and disease can be traced back to one source, improperly or not fully digested food. How can the human body function properly if it does not digest food properly?

Advocates of the enzyme theory believe that if the diet consists almost entirely of enzyme-dead, cooked and processed foods, the body's own production of digestive enzymes (by the pancreas) will become exhausted and depleted by the effort to digest food. Essentially the pancreas has to do all the work that should be done in part by enzymes naturally occurring in uncooked food. It's also thought that when digestive enzymes are depleted the body's thousands of metabolic enzymes are diverted to help digest food and are thus not available for their natural function of protecting and repairing the body.

Taking enzyme supplements with food will help digest that food. But enzymes, especially proteolytic enzymes, serve another function. When these digestive enzymes are taken on an empty stomach (two hours of no food) the benefits are enormous. Instead of being used to digest food, proteolytic enzymes taken on an empty stomach enter the blood stream and digest foreign bodies in the blood including (according to this theory) invading microbes and cancer cells.

Proteolytic enzymes circulating in the blood will digest any protein they encounter that is not produced by the body itself. The combination of taking digestive enzymes with food for proper digestion AND on an empty stomach thus helps cleanse the bloodstream. It means that the thousands of metabolic enzymes that protect and repair the body are no longer needed to clean up improperly digested nutrients and they can go back into the priority mode of protecting and repairing at full strength. In this priority mode, the protectors and repairers are ready and waiting to utilize the nutrients from the foods we eat and the supplements we take.

Taking enzymes on an empty stomach is reported to:

- Digest proteins
- Assimilate fats
- Increase energy
- Reduce bacteria
- Eliminate yeast
- Break up and dissolve uric acid crystals
- Raise T-Cell activity and production
- Stimulate the Immune System
- Shatter crystalline deposits
- Break up cholesterol deposits
- Increase the white blood cell size and activity
- Increase the surface area of the red blood cells, to carry more oxygen to all the parts of the body

At the **Michael Reese Hospital in Chicago** experiments were done on two groups of people. The first group was 21 to 31 years old. The second group was 69 to 100 years old. The researchers found the younger people had 30 times more amylase in their saliva than did the older people. This is why young people can handle a diet of sugar, bread, pasta, pastries, and cooked foods without much problem. But because it overworks the body's limited supply of pancreatic or digestive enzymes, this type of diet can cause rapid aging and depletion of our enzyme supplies. The older we get, the more we need enzyme supplementation.

Enzymes digest the cancer cell wall so that other agents can penetrate and kill the rest of the cell. **Dr. William Kelley** promoted an enzyme therapy that was expensive but, according to his extensive case study records, digested a tumor in four weeks. His work is carried on by **Dr. Nicholas Gonzales.** See William D. Kelley.

These powerfully active natural chemicals are protein-mineral complexes, which occur in all living things and make possible virtually all of the many biochemical reactions in the body. They are indispensable to life and to good health. Whenever there is a significant reduction in the presence or the availability of enzymes, sickness and degeneration begin.

The immune system depends heavily upon enzymes for all of its functions. They are essential to the performance of every function of every organ system in the body.

Many white blood cells produce and utilize enzymes as a necessary part of their function. Another cancer-fighter, the T-lymphocyte, attacks cancer cells in a similar manner, utilizing enzymes in its ability to dissolve and digest tumor cells. These fighters are part of a highly integrated system capable of recognizing cancer cells, then attacking and destroying them. Enzyme therapy is widely used by a great many alternative and integrative doctors who treat cancer patients.

Proteolytic enzymes from the pancreas have the unique ability to break down the muco-protein coating that encases all malignant tumors and protects cancer cells from attack by the body's immune system.

Enzymes also protect the body against cancer, particularly metastatic or spreading cancer, in other ways.

Pre-cancer cells become attached to body tissues by means of fibrin, a protein component necessary for blood clotting. Enzymes digest away the fibrin, preventing the attachment of pre-cancerous and cancerous cells to body tissues, thus releasing these abnormal cells into the circulating blood where they are normally destroyed by circulating enzymes or by the immune system fighters described above.

Some research has suggested that proteolytic enzymes such as bromelain, a protein-digesting enzyme derived from the pineapple, have the power to actually transform cancer cells into normal cells. This and other evidence seems to indicate that, in addition to their many other attributes, enzymes may have a directly normalizing effect on cancer cells.

This knowledge is not new. A century ago, **Scottish embryologist John Beard**, in spite of having little knowledge of enzymes, discovered that by taking pancreas tissue from young animals he could extract a liquid which was effective in causing tumor reduction.

Practicing in England, Dr. Beard would inject his pancreatic extract either directly into accessible tumors or into the muscle or vein of the patient. Even some advanced

cancers considered to be incurable were made to completely disappear. He was reportedly able to help or even cure more than half his patients, most with advanced cancers.

His was a crude preparation, containing impurities and foreign proteins. It caused allergic reactions in some patients. For this, he was roundly criticized and attacked by his peers in the medical profession, not unlike organized medicine's attacks today on alternative physicians.

Dr. Beard's high rate of success in treating cancer patients led to such a demand for his pancreatic enzyme preparation, English physicians were hounded by their patients to be treated with this miraculous substance. Consequently, eight attempts were made to duplicate his preparation, with pharmacists obtaining pancreatic juice from local slaughterhouses.

The trouble was, the pancreases were taken from older animals with far less enzymatic activity than younger animals. Dr. Beard held that it was essential to extract enzymes from the pancreases of healthy young animals because they naturally had higher enzyme levels. The other factor that undermined attempts to duplicate his preparation was the simple passage of time. Enzymes have a relatively short "shelf life," especially if not stored properly.

Dr. Beard had been careful to use only freshly removed pancreases for his material. Thus, physicians who obtained material from slaughterhouses, pharmacists, couriers, etc. found the enzymes useless.

Since Dr. Beard's colleagues had no success with their inactive enzyme material, the concept and method of treatment sadly fell into disrepute and was largely forgotten. Fortunately, in 1907 Beard wrote a book about his experiences in treating cancer patients and his hypothesis of the causation of cancer, now known as the "trophoblast" theory, so his work was not completely lost to future generations.

But for nearly 50 years, there was no significant activity in the area of enzymes and cancer. The medical consensus of the day held that enzymes could not have anything to do with cancer, much less anything to do with curing it.

The next significant advocate of enzyme therapy was **Dr. Max Wolf**, a faculty member at Columbia University, New York. Dr. Wolf developed an interest in enzymes and cancer and wrote to all of the medical libraries in the US and much of the Western world, seeking information on the subject.

Reading virtually everything that had ever been written about the subject up to that time, Wolf became probably the world's leading authority on enzymes and their relationship to cancer. One of the books he managed to locate and read was John Beard's book, of which only a few copies remained.

Working at his research laboratory at Columbia in the 1950s, Wolf designed a complicated and extensive study of the effect of enzymes on cancer cells. Thousands of cell cultures were prepared with normal cells and cancer cells living and growing together. Each of these cultures was then treated with a particular enzyme or combination of enzymes to determine which was most effective in killing cancer cells while preserving normal ones.

A wide range of enzymes and enzyme combinations was tested in this way to determine which was the most effective against cancer cells, while safely avoiding damage to

normal cells. Because of Wolf's connections in Germany (and because of the inhibiting presence of the American FDA), he moved to that country to carry out his clinical work. There he developed the final formula which showed highly favorable results when used to treat human cancer victims.

Dr. Wolf's particular mixture of enzymes survives to this day as **Wobe-Mugos**, which has been used to treat tens of thousands of cancer patients in Germany over the last 30 years. This enzyme formula, along with a companion product called **Wobenzym**, has also been used in the US by a few physicians, as well as in several Mexican alternative clinics.

Also available from Germany is an injectable preparation of Wobe-Mugos enzymes, reported to be quite useful in treating accumulations of fluid in the chest, called pleural effusions, when these accumulations are due to cancer. German practitioners have reportedly used this approach for many years with consistent success. Collections of abdominal fluid, called ascites, can be treated in like manner. In addition, any tumor which is accessible by needle may be treated with this material.

These and other similar enzyme products have a wide application in medicine, being effective against many inflammatory conditions, arthritis, autoimmune diseases, injuries, blood clots, and phlebitis, to name a few—as well as being a vital tool in the management and control of cancer.

Of the view of conventional medicine on the value of enzymes, preeminent cancer researcher **Ralph W. Moss Ph.D.** states:

"For years opponents of alternative medicine have argued that enzymes taken by mouth would be broken down in the stomach and inactivated before being able to do much good at all. This point of view was thoroughly refuted in 2002 when three physiologists at the University of California-San Francisco showed that digestive enzymes can be absorbed into blood, reabsorbed by the pancreas, and reutilized, instead of being reduced to their constituent amino acids in the intestines. This is called an enteropancreatic circulation of digestive enzymes (Rothman 2002). But clearly news of this established fact hasn't reached the implacable opponents of complementary medicine. For instance, an attack on the work of Dr. Gonzalez states, 'Like all dietary proteins, enzymes are dismantled into constituent amino acids by host proteolytic enzymes in the gastrointestinal tract, thus destroying their enzymatic activity'". (Green 1998). **SOURCE: Alternative Cancer Research Institute**

Further Reading & References

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