

Aging and Quality of Life

by Dr. Olga Miezio

Everyone wants to live longer, look younger, be healthier, and avoid aging. Aging is a progressive decrease in the body's ability to function. Though aging is not a disease, the body does become more susceptible to disease due to it. Aging is directly related to the body's decreased enzyme production. According to numerous researches, not only does the body produce fewer enzymes with age, but those enzymes that are produced can not do their jobs as well. **What are Enzymes?** Enzymes are delicate protein molecules that are necessary for life. They are found in all living cells, whether animal, plant, or microorganism. Their roles are to catalyze and regulate nearly all of the biochemical reactions that occur within any organism. Enzymes are made within the various cells of the body. Depending on the cell type and function, enzymes are produced at different rates which vary according to the needs of the cells at any given time. Enzyme potential declines with aging. Therefore, as each year passes, the body requires increased supplemental enzyme support to fight degenerative conditions associated with aging such as arthritis, Alzheimer's disease, cancer, cardiovascular diseases and stroke.

Many of the conditions suffered by older people are caused by a decrease in digestive ability, increased sclerosis (scar tissue formation) and fibrosis (abnormal increase in fibrous connective tissue formation), and an increase in free radical production. These factors all increase the rate of aging and are directly related to decreased enzyme levels and activity.

Free radicals are very important factors in the aging process. They are incomplete, highly unstable, reactive compounds or molecules. Free radicals can lead to a faulty metabolism of proteins, damage DNA, cause lipid peroxidation in the cell membranes, and can interfere with the cell's ability to take in nutrient and expel wastes. They can inactivate enzymes in the cell membranes, oxidizing cells so that they practically rust. They play a vital role in the formation of cross linkages -- the undesired links between protein chains in connective tissues including the skin. Cross-linkages reduce connective tissue elasticity. The most apparent damage of cross linking is the formation of wrinkles. If their destructive "rage" is not stopped, free radicals can weaken the whole body causing illness and premature aging. In fact, free radicals can contribute to the development of a number of diseases, including premature aging, cancer, atherosclerosis, asthma, inflammatory joint disease, degenerative eye disease, senile dementia, and diabetes.

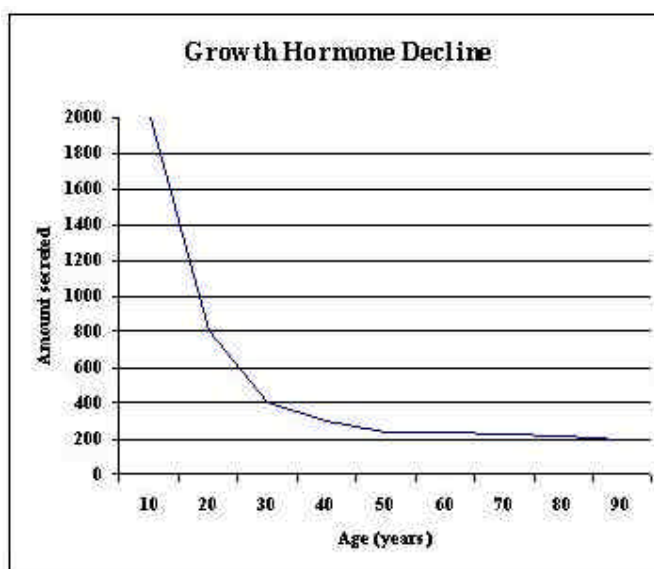
Enzymes can improve digestion, inhibit fibrosis and sclerosis, and fight free radicals. All of these actions help combat premature aging. Oral enzymes are supplemental enzymes, mostly hydrolytic in activity, that are taken to facilitate digestion and to help alleviate gastrointestinal stress. Furthermore, some enzymes are absorbed into the blood stream where they remain active.

Over the past several years, scientists have unlocked many of the key issues that relate to the effects of the aging process. Signs of aging include wrinkling, sagging skin, aching joints, whitening and/or loss of hair, increased fatigue, increase frequency of urination, constipation, varicose veins, memory loss, increased frequency of chronic disorders, and diminishing eyesight. Plus aging declines a very important part of human life which is our sexual performance. A recent article in *The Journal of the American Medical Association* reported that four out of 10 women and three out of 10 men over the age of 18 experience some form of sexual dysfunction, including lack of interest in sex, problems with lubrication or erection and pain during intercourse.

According to recent Panel on Impotence by the National institute of Health, over half of the erection problems in men are related to the same cholesterol plaque build-up in penile arteries that also causes heart attacks.

In 1990, *The New England Journal of Medicine* published a clinical study done by Dr. Daniel Rudman. His conclusion was that "The overall deterioration of the body that comes with growing old is not *inevitable*. We now realize that some aspects of it can be prevented or reversed." Human Growth Hormone (HGH) is secreted by the pituitary gland deep inside the brain. It has an influence on the vitality of all the cells, muscles, organs and bones throughout the body. It has been shown to *prevent* the signs of aging, as well as reverse a broad range of symptoms and physical signs that usually occur with aging. As we age, HGH becomes less available in the body, as demonstrated in the graph below. The pituitary gland sequesters (holds) HGH through several feedback mechanisms, releasing less and less. Oral HGH releasers assist the pituitary gland to release its own naturally sequestered hormone. Thus, oral HGH releasers may function as modulators to return the body's *homeostatic* levels of this hormone.

Blood levels of the body's anti-aging messenger decline with age:



HGH is of special interest to those who wish to improve their physique. Studies have found HGH appears to promote lipolysis, or the breakdown of fats, and can further develop the body's ability to improve muscle function and help build muscle mass. Exercise, dieting, sleep, healthy diet and emotionally positive stress increase HGH release. Sustained high intensity exercise increases the quantity and number of pulses of HGH release. The free fatty acids associated with being overweight act as inhibitors of HGH secretion. Obesity diminishes the pulsatile (bursts) of HGH. It also causes the accelerated breakdown of HGH by the body. Poor eating habits shut down HGH by simulating excessive insulin production. A proper diet may assist in overcoming insulin excess in order to promote HGH release.

According to many physicians who use growth hormone therapy, the sexual changes have been striking. Both sexes report increased desire, better performance, increased frequency, longer duration and decreased recovery time between orgasms. Many men have reported stronger and longer erections.

With HGH therapy, a lot of patients find improvement in their sleep and experience a feeling of being better rested. Because low HGH levels cause the patients to dream less, awaken more frequently and find it harder to go back to sleep (people with low HGH levels spend less time in slow wave and REM sleep). Today we can treat aging as a disease; the process of aging is not inevitable. You don't have to grow old like your grandparents did. Aging is a process that we can forestall with a professional guide and the right knowledge of appropriate nutrition, diet, and lifestyle. By lowering your RealAge, you are buying time to do more, be more and enjoy life like you've always wanted. What could be more promising than that?

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