

## ***AGING WITH STRESS***

The hormone cortisol, which is released in the body during stressed or agitated states, has gained widespread attention as the so-called "stress hormone." But this hormone is more than a simple marker of stress levels, it is necessary for the functioning of almost every part of the body. Excesses or deficiencies of this crucial hormone are also lead to various physical symptoms and disease states.

The steroid hormone Cortisol secretion increases in response to any stress in the body, whether physical (such as illness, trauma, surgery, or temperature extremes) or psychosocial (office environment, home life etc.) When cortisol is secreted, it causes a breakdown of muscle protein, leading to release of amino acids into the bloodstream synthesizing glucose for energy. This process raises the blood sugar level so the brain will have more glucose for energy. At the same time the other tissues of the body decrease their use of glucose as fuel. Cortisol also leads to the release of so-called fatty acids, an energy source from fat cells, for use by the muscles. Taken together, these energy-directing processes prepare the individual to deal with stressors and insure that the brain receives adequate energy sources.

But once stress is attached to the muscular system, the muscles and the body try to fight the stress in the least expensive way. This least expensive way could be either build more muscle to protect itself or break down muscles to stop the attack (weaken itself). Managing stress becomes very important during work accommodations.

Furthermore, cortisol is one hormone that is pro-aging. The hormone plays a key role in regulating metabolism, blood pressure and cardiovascular function, and it suppresses immune system activity. Cortisol also helps the body respond to stress, mobilizing the body and preparing it for vigorous activity. Excessive cortisol levels are believed to wear on the heart, brain, metabolism and other bodily functions. Cortisol levels naturally wax and wane over the course of a day, peaking in the morning and declining through the afternoon and morning.

Besides stress, cortisol levels may be somewhat higher after meals. Cortisol level also goes up with high sugar intake. Taking desert at night will increase the cortisol level. A high cortisol level also inhibits the release of growth hormone level in our body. Growth hormone is one anti-aging hormone we need more of during the aging process. Certain drugs can lead to increased cortisol levels. women in the last trimester of pregnancy also generally have elevated cortisol levels. Recent research has even shown that drinking 2-3 cups of coffee per day can elevate cortisol levels.

The lesson from this article is simple: reduce stress and live longer!

