



ADVANCED BODY DYNAMICS

Wellness Care & Sports Medicine

COMBATING THE EFFECTS OF LONG-TERM STRESS AND ILLNESS

People who are under a great deal of stress in their lives often have a more difficult time staying healthy than those who lead a more relaxed lifestyle. Caregivers, soldiers, astronauts and business managers are just some who fall into this group with high stress lifestyles. Now, research at the University of California Los Angeles (UCLA) sheds some light on why people in situations of long-term high stress may find it difficult to ward off illness.

It all starts with the release of the hormone cortisol into the blood stream during situations of stress. Cortisol is produced by the body in the outer layer of the adrenal glands. "When the body is under stress, it boosts production of cortisol to support a 'fight or flight' response," according to Rita Effros, a professor of pathology and laboratory medicine at the David Geffen School of Medicine at UCLA. "If the hormone remains elevated in the bloodstream for long periods of time, though, it wears down the immune system." And this is what happens to people who are subjected to long-term stress.

Researchers found that cortisol has a negative effect on the length of telomeres in immune cells. Telomeres are a region of DNA at the end of a chromosome that protect the genetic coding from shortening during each cell division. According to previous research, an enzyme called telomerase in each cell helps the telomere to retain its normal length as it continues to divide.

To make a long story short, cortisol in the system suppresses the ability of the immune cells to activate telomerase. When this occurs, it opens the door to the shortening of telomeres. Persons under constant stress were found to have shorter telomeres, which made them more susceptible to all sorts of illness and diseases including HIV, osteoporosis, heart disease and aging.

According to Ms. Effros, the UCLA research has a goal of improving people's health and their future susceptibility to illness, particularly if they are under a great deal of stress. "We are testing therapeutic ways of enhancing telomerase levels to help the immune system ward off cortisol's effect. As her research is being conducted through a school of medicine, she had this to add: "If we're successful, one day a pill may exist to strengthen the immune system's ability to weather chronic emotional stress."

An alternate and much safer solution to the "pill of the future" would be a vitamin supplementation which is already available today. Vitamin makers and the natural healthcare field have developed a number of products that work to provide stress relief and adrenal support through supplementation. Speak to your natural healthcare provider to see what recommendations might be available to help combat and counteract the effects of both short-and long-term stress on the body – and, stay healthy!

Source: The University of California Los Angeles. "UCLA Study Identifies Mechanism Behind Mind-body Connection." July 2008. http://www.eurekalert.org/pub_releases/2008-07/uoc--usi071508.php and ScienceDaily. "Mechanism Behind Mind-body Connection Discovered." July 2008. <http://www.sciencedaily.com/releases/2008/07/080715152325.htm>

9137 E. MINERAL CIR., STE. 380 - CENTENNIAL, CO 80112 - (303) 790-7650