DHEA DEFICIENCIES IN AUTOIMMUNE DISEASE

How DHEA prevents diseases related to aging.

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DHEA is a prohormone naturally produced by the endocrine glands. Levels of DHEA decline with aging, a time when the incidence of autoimmune diseases increases.

DHEA and Aging

Dehydroepiandrosterone, which is commonly referred to as DHEA or DHEA sulfate, is the most abundant steroid compound found in the body. Produced by the endocrine glands, DHEA is not a hormone. Nor is it an anabolic steroid as it is sometimes mistakenly reported to be.

Rather, it is a prohormone or precursor necessary for the production of androgenic and estrogenic sex hormones. Studies show that DHEA is also one of the most important anti-aging supplements available. Our body's levels of DHEA fall as we age, and with this decline many signs of aging begin to occur.

The normal range for men is 280-640 ug/dl and optimal levels are considered to be 500-640 ug/dl. For women, the normal or reference range is 65-380 ug/dl and optimal levels occur at 250-380 ug/dl. Studies conducted in healthy laboratory workers show that women older than 35 years often have DHEA levels as low as 50 ug/dl.

Effects of DHEA Supplements

Supplementing with 15-75 mg of DHEA sulfate daily for 3-6 weeks is usually required to restore DHEA to optimal levels. What are the benefits of DHEA supplementation? A three-year study involving persons using DHEA supplements showed lower mortality risk, lower incidence of metabolic syndrome, reduced inflammation, improved wound healing, improved endothelial function, improved nerve tissue healing, improved sexual function, reduction of depression, improved cardiovascular health, increased metabolism of nutrients, lower lipid levels, reduced side effects of corticosteroid medications, and possible prevention of atherosclerosis.

Conditions thought to be related to diminished levels of DHEA include inflammatory diseases, metabolic syndrome, cancer, osteoporosis and type II diabetes.

Low Levels in Autoimmune Disease

The immune system needs a strong nutritional foundation for both cellular growth and repair and to alleviate the effects of environmental contaminants and lifestyle. Long ago low levels of the antioxidant vitamins beta-carotene, vitamin A, and vitamin E, were
found in blood donors prior to their developing rheumatoid arthritis and systemic lupus erythematosus. Later studies showed low levels of vitamin D and low levels of DHEA in patients with multiple sclerosis and other autoimmune diseases. In one study of ten patients with Sjogren's syndrome, all 10 patients were found to have low DHEA levels. Antioxidant vitamins and DHEA offer protection from oxidative stress. Oxidative stress is a major autoimmune disease trigger.

An Inverse Relationship

DHEA levels decrease with aging, and reductions in DHEA are more pronounced in men. Autoimmune disease risk and cancer risk both increase significantly with aging. Both cancer and autoimmune disease are associated with inflammation and an inefficient immune response. DHEA is reported to reduce inflammation and improve immune function. Results of the Massachusetts Men's Study show that higher levels of DHEA are associated with cardiovascular health. Men with higher levels of DHEA were also less likely to show evidence of heart disease.

Who Shouldn't Use DHEA

People with hormone-dependent tumors such as breast, uterine, and prostate cancers should avoid using DHEA because it increases levels of sex steroids. In any case, check with your doctor before adding DHEA, and start with a low dose, increasing it gradually. After 3 weeks on a stable dose of DHEA have blood levels re-checked to see where they fall within the optimal range.

Resources:


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