

Dhea and healthy aging

DHEA drops with age and this decline correlates with undesirable changes in our organism. Its production drops approximately 1-2 % per year after the age of 35.

There are not unique symptoms of deficiency of DHEA, but low levels are associated with increases in cardiovascular and all causes mortality, obesity, type 2 diabetes, immune dysfunction with more frequent autoimmune diseases, cancer, hypertension, cardiovascular diseases, depression and loss of well-being, low libido, erectile dysfunction and osteoporosis. It has been described a direct correlation of DHEA levels and physical performance and that DHEA treatment improves physical and psychological wellbeing in people over 65 years old (Morales et al., 1994)

When low levels are detected, DHEA replacement improves plasma lipid profile, improves insulin sensitivity, increases bone mineral density and increases the effect of physical exercise on muscle volume and strength, probably through increases of IGF-1.

DHEA replacement produces several important effects on Skin. DHEA promotes sebum production (better skin quality), increases superficial hydration (improves rugosity of skin and water content of corneous stratum), diminishes skin pigmentation of face (skin color rejuvenation) and epidermic thickness is maintained and cutaneous atrophy is reduced. In summary, DHEA improves skin and this way, patient improves perception of his own person in aging (Baulieu et al., 2000)

Besides, topical DHEA increases skin procollagen synthesis and inhibits collagen degradation (diminishes metalloproteinases synthesis and increases one of its inhibitors).

DHEA can improve significantly patients with depression, although does not have any positive effect on cognitive performance (Adas-Cog) in Alzheimer`s Disease.

DHEA therapy provided a significant improvement in sexual function and in frequency of sexual intercourse in early postmenopausal women. Besides, DHEA supplementation modestly increases bone mineral density in conjunction with adjuvant therapies, improves cognition in those with mild-to-moderate cognitive impairment and intravaginal DHEA alleviates vaginal atrophy and improves sexual function in postmenopausal women.

Finally, DHEA improves immune system through the increase of Natural Killer (NK) cells, the decrease of CD4 (T helper) cells, increases in IL2 secretion and IL2 receptors in T linfocytes and also impairs the increases of IL6.

When low, DHEA can be replace with many health advantages, like better conditions of skin, better immune function (immune system activation), better BMD, increases in muscle strength, increases in lean body mass, decreases in joint soreness and stiffness, increases in quality of life, improves sleep quality, increases in feeling of wellness, lowers the damaging effect of stress, increases in insulin sensitivity and lowers triglyceride levels and cholesterol levels (lower cardiovascular risk).

Replacement of DHEA has to be done always according to the general rules of Endocrinology.

Basic Bibliography

Baulieu et al., PNAS, 97 (8), 4279-84, 2000

Morales et al., J Clin Endocrinol Metab. 78(6):1360-7, 1994

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