

EndoAxis

Formula 23

DHEA

Liposomal DHEA.

AT A GLANCE

DHEA is a steroid hormone synthesized from cholesterol, predominantly by the adrenal glands, but also by the gonads (testes and ovaries), by the skin and even directly by the brain in small amounts. It is a precursor to both androgens and estrogens, making it a central player in sex hormone synthesis. However, it also acts as a hormone signal itself, with receptor sites specifically for DHEA found in the liver, kidney, and gonads, affording it a wide range of physiologic influence. In recent years, interest in DHEA supplementation has expanded beyond its role in sexual health, to its potential use in managing adrenal stress, mood regulation, fertility, vaginal health, and even bone health.[1]

DHEA levels peak in the second decade of life, with a steady decline expected each decade after age 30, reaching a tenth to twentieth of what it was by age 60 than it was in younger years. Although a decline is expected, lower circulating levels of DHEA have been associated with heart disease, diabetes, obesity, and chronic fatigue syndrome, among others.[2]

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Products blended to support alignment to our HPA axis. Optimizing our circadian activity and adrenal balance.



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KEY BENEFITS



Optimizes hormonal activity and response



Targets adrenal health and balances the stress response through the HPA axis



Acts as a neurosteroid to protect the brain from the chronic influences of stress

FORMULA ANALYSIS

General dosing principles:

Studies on DHEA are predominantly using doses of 25-100 mg daily, in both men and women for 3-6 months, with few reported side-effects and improvement noted in energy, focus, and mood[3], while longer duration use demonstrated seemingly better tolerance and effectiveness at lower doses of between 5-10 mg daily for women, and 25 mg daily in men[4].

Anabolic improvements in men

DHEA at doses of 25-100 mg daily for 6 months showed greatest benefit for men, specifically to help improve muscle mass and athletic performance. These gains were not observed in women, suggesting a stronger physiological preference for androgens and DHEA for anabolic health carried and expressed by the y chromosome.[5]

Infertility

Premenopausal women struggling with lower levels of DHEA and infertility have shown to receive benefit from DHEA supplementation at doses of 25 mg, 3x per day. [6] [7] This benefit was observed in IVF clinics while treating infertility in women of advancing age as well. [8] It should be noted that DHEA is teratogenic, so should not be taken when actively pregnant.

Neuroprotective benefit

DHEA demonstrates neuroprotective benefits in both men and women, increases neurite growth and acts as an antagonist to the oxidative influence of cortisol on the brain.[9] Several studies have indicated use of DHEA 30-90 mg daily for 6 weeks improved symptoms of dysthymia and depression when compared to placebo[10]. Lower doses (5-20 mg daily) did not show the same benefit to mood.

Use with long-term Glucocorticoids

Glucocorticoids suppress endogenous cortisol via negative feedback to the brain that reduces CRH and ACTH production. This can negatively impact DHEA production, as this hormone is also triggered by ACTH in the adrenal cortex. In several studies, the use of DHEA replacement for individuals using long-term glucocorticoids resulted in reduced catabolic damage experienced from the steroidal medication[11], demonstrating a protective benefit of providing DHEA (25 mg daily) for those taking longer term steroid medications.

Bone health

A double-blind, placebo controlled randomized trial (the DAWN study) reviewed the benefits and adverse effects of delivering 50 mg of oral DHEA daily for 1 year to both men and women, aged 55-85, who were not on any other form of HRT. Results demonstrated that DHEA administration had positive influence on bone density, enhanced IGF-1 bioavailability and inhibited IL-6 production, all of which improved bone health.[12] Other reviews have confirmed benefit of use from DHEA supplementation on increased bone mineral density and improved fracture healing, suspected due to the influence it has on IGF-1.[13]

Post-menopausal health

A randomized controlled trial evaluated the use of 50 mg of DHEA daily for >26 weeks resulted in a pronounced elevation in circulating estradiol levels, supporting use of higher DHEA in postmenopausal women.[14] A long-term retrospective analysis on DHEA in post-menopausal women revealed that a long-term dose of 25 mg DHEA per day resulted in reduced climacteric symptoms associated with menopause as well as estradiol therapy alone,[15] while another study revealed that 10 mg DHEA per day when coupled with estradiol therapy had enhanced outcomes over E2 therapy alone.[16][17]

Adverse symptoms

DHEA is steroidal hormone with receptor sites, as discussed, in many target tissues in the body. Common side-effects from taking DHEA can include:

- Headaches
- Stomach irritation
- Increased irritability and agitation
- Acne
- Oily skin
- Male pattern baldness
- Hirsutism (excess abnormal hair growth)
- Gynecomastia (in men)

SUPPLEMENT FACTS

Serving Size 0.20mL (4 Drops)

Servings Per Container 300

Amount Per Serving	% Daily Value
Dehydroepiandrosterone (DHEA)	5 mg †

† Daily Value not established

Other ingredients: Steam distilled water, vegetable glycerin, organic cane alcohol 5%, sunflower lecithin, natural orange flavor, natural stevia leaf extract, potassium sorbate (preservative).

SUGGESTED USE

Adults take 4 drops once daily or as otherwise directed by a healthcare practitioner.

CAUTION: Do not use if pregnant or nursing. Consult your physician before use if you have a medical condition, or taking any medication. Do not use product if the safety seal is broken or damaged. Keep out of reach of children.

DOSING STRATEGY

Pre-menopausal Women

Consider starting with 5-10 mg daily. Increasing dose up to 25 mg is considered safe for longer term use.

Infertility

Consider dosing 25 mg, 2-3x per day depending on tolerance. Works best for women who have low ovarian reserve and lower DHEA to start with, or in women of advanced age (35 or older).

Glucocorticoid Support

Consider a daily dose of 25 mg while the patient is on exogenous steroid medications.

Male Support

Men tend to require higher doses due to higher receptor response and need. General starting dose is 25 mg daily, to increase to 50 mg as tolerated. Use caution with long-term use of doses higher than 50 mg for more than 1 year.

PRECAUTIONS

It is encouraged to not use higher doses of DHEA (50-100 mg) continuously for more than 1 year, while doses up to 50 mg tend to be safe for longer term use.

DHEA can reduce blood clotting factors, so avoid use prior to surgery and do not take in tandem with other blood thinning medications.

People with hormone-sensitive cancers (such as prostate, breast, ovarian or uterine), should not take DHEA.

DHEA may worsen symptoms of PCOS, so should be avoided in women who have PCOS.

DHEA has been reported to induce psychotic behaviors in individuals taking psychiatric medications. Use caution, or avoid use of DHEA in patients on psychiatric medications.

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*These statements have not been evaluated by the Food & Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.