

## DHEA (Dehydroepiandrosterone)

### 25 mg, 100 capsules

Item Catalog Number: 00335

In 1981, the Life Extension Foundation® introduced DHEA (dehydroepiandrosterone) to its members through an article that described the multiple benefits this hormone might produce. However, the general public did not learn about DHEA until 1996, when its benefits were touted by the news media and in several popular books. DHEA became credible to the medical establishment when the New York Academy of Sciences published a book called DHEA and Aging. That book provided scientific validation for the many life-extending effects of DHEA.

It has been shown that the serum hormone DHEA often declines by 75–80% from peak levels by age 70 or later, leading to hormonal imbalances that can affect one's quality of life.<sup>1-3</sup> Peak blood levels of DHEA occur at approximately age 25, decreasing progressively thereafter.<sup>3</sup> The marked decline in serum DHEA with age is believed to play a role in health problems associated with aging. Thus, scientists have been looking at ways of restoring DHEA to youthful levels to prevent or reverse those health issues, and are now discovering mechanisms by which DHEA protects against age-related decline.

Since 1981, several hundred studies have been published on DHEA's various benefits, including immunomodulatory properties as well as positive effects on mood, quality of life, and body composition. It has been proposed that restoring the circulating levels of DHEA to those found in young people may improve well-being and sexual function. In a recent randomized, double-blind, placebo-controlled study, ten months of DHEA replacement therapy has the beneficial effect of enhancing the increases in muscle mass and strength with the addition of resistance exercise in elderly individuals.<sup>4</sup> The studies of DHEA therapy in women with adrenal insufficiency also suggest beneficial effects on well-being, mood, and sexuality.<sup>5</sup> DHEA could be of benefit to the normal aging brain.<sup>6-8</sup> Some studies have reported DHEA may improve mood and alleviate melancholy.<sup>9</sup> In addition, recent studies in vitro have shown that DHEA has the capacity to improve endothelial function by increasing nitric oxide (NO) synthesis.<sup>10</sup>

In recent randomized, double-blinded, controlled trials, DHEA replacement therapy for one year helped protect hip bone mineral density in older adults and spine bone mineral density in older women.<sup>11</sup> DHEA has also been shown to support a healthy circulatory system and joint/bone health.<sup>12,13</sup>

### DHEA USAGE AND SAFETY PRECAUTIONS

Life Extension® has been investigating DHEA for almost 30 years. Life Extension's DHEA directions for use are specially drafted to provide optimal, but safe dosing.

The standard blood test to evaluate DHEA status is one that measures DHEA sulfate levels (DHEA-S). The DHEA-S is calculated in micrograms per deciliter ( $\mu$ /dL) of blood. A DHEA-S (dehydroepiandrosterone sulfate) blood test may be taken three to six weeks after initiating a DHEA supplementation regimen to help determine optimal dosing. When having your blood tested for DHEA, blood should be drawn three to four hours after the last dose. DHEA testing may save you money if it shows you can take less DHEA to maintain youthful DHEA serum levels.

Because of the overwhelming evidence connecting low levels of DHEA to problems associated with aging, Life Extension suggests that all people over age 40 begin DHEA therapy. For most people, the starting dose of DHEA is between 15–75 mg, taken in one daily dose. Many studies have used a daily dose of 50 mg.

Ideally, DHEA replacement therapy should begin with blood testing to establish a base range. Since almost everyone over age 35–40 has lower than optimal levels of DHEA, most people begin supplementation and test their blood DHEA levels later to make sure they are taking the proper dose. Normal serum reference ranges and ideal ranges of DHEA-S are:

	<b>Normal</b>	<b>Ideal</b>
Men	280-640 $\mu$ /dL	500-640 $\mu$ /dL
Women	65-380 $\mu$ /dL	250-380 $\mu$ /dL

People over age 40 who do not supplement with DHEA usually have serum levels below 200, and many are below 100 as a steady decline takes place after the third decade in life.<sup>1,12,14</sup> There are different precautions for men and women that should be

observed.

## **DHEA PRECAUTIONS FOR MEN**

Before attempting to restore DHEA to youthful levels, men should know their serum PSA (prostate specific antigen) level. Men with prostate cancer or severe benign prostate disease are advised to avoid DHEA since it can be converted into testosterone (and estrogen). Therefore, men are advised to have a PSA and digital rectal exam before initiating DHEA to rule out existing prostate disease.

When taking DHEA we also recommend taking the following other nutrients:

- Vitamin E (d-tocopheryl succinate) 400 IU daily
- Selenium 200 mcg daily
- Super Absorbable Soy Isoflavones 55 mg daily
- Gamma E Tocopherol with Sesame Lignans 200 mg daily
- Lycopene Extract 20–40 mg daily
- Saw Palmetto Extract 160 mg twice daily
- Pygeum Extract 50 mg twice daily
- Nettle Extract 120 mg twice daily
- Boron 3–10 mg daily

It is important for men over 40 to have a physician check their PSA and DHEA-S serum levels every six to twelve months thereafter. Men should also periodically check their blood levels for free testosterone and estrogen to make sure that DHEA is following a youthful metabolic pathway.

See the Male Hormone Modulation chapter in the Disease Prevention & Treatment book for additional hormone balance testing that can be done at the same time serum DHEA and PSA levels are being tested.

## **DHEA PRECAUTIONS FOR WOMEN**

Women should consider estrogen and testosterone testing when they take their DHEA blood test in order to evaluate DHEA's effect on their blood levels of these hormones.

Women who have been diagnosed with an estrogen-dependent cancer should consult their physicians before beginning the DHEA restoration process.

When taking DHEA we also recommend taking the following other nutrients to maintain a healthy balance:

- Melatonin 300 mcg to 3 mg nightly
- Vitamin E 400–800 IU daily (d-tocopheryl succinate)
- Broccoli extract 400 mg daily (as found in Dual-Action Cruciferous Vegetable Extract)
- Indole-3-carbinol 80 mg daily (as found in Dual-Action Cruciferous Vegetable Extract)
- Vitamin D3 1000–2000 IU daily
- Gamma Tocopherol with Sesame Lignans 200 mg daily
- Soy Isoflavones 55 mg daily

Women taking DHEA should refer to the Female Hormone Modulation chapter in the Disease Prevention and Treatment book for information about restoring youthful hormone balance.

## **DHEA SUPPLEMENTATION**

The Life Extension Foundation Buyers® Club offers DHEA supplements that conform to the following specifications:

- Micronized (for maximum absorption and utilization)
- Manufactured under GMP (Good Manufacturing Practice) conditions

## **References**

## Supplement Facts

Serving Size 1 capsule

Servings Per Container 100

### Amount Per Serving

Dehydroepiandrosterone (DHEA) free base

25 mg

Other ingredients: rice flour, water, gelatin.

Contains rice.

This product contains NO milk, egg, fish, peanuts, crustacean shellfish (lobster, crab, shrimp), soybeans, tree nuts, wheat, yeast, gluten, or corn. Contains NO sugar, and no artificial sweeteners, flavors, colors, or preservatives.

## Dosage and Use

- The exact number of capsules to be taken should be determined by blood testing and the advice of a physician.
- Generally, take one to three capsules in the morning only.
- DHEA serum blood tests are suggested 3 to 6 weeks after initiating DHEA replacement therapy to optimize individual dosing.

## Caution

Do not use DHEA if you are at risk for or have been diagnosed as having any type of hormonal cancer, such as prostate or breast cancer.

## Warnings

- Keep out of reach of children.
- Do not exceed recommended dose.
- Do not purchase if outer seal is broken or damaged.
- If you have a bad reaction to product discontinue use immediately.
- When using nutritional supplements, please consult with your physician if you are undergoing treatment for a medical condition or if you are pregnant or lactating.

## Related Keywords

Hormones, Anti Aging

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