# DHEA 25 mg Micronized Dehydroepiandrosterone



### DESCRIPTION

DHEA capsules contain highest purity micronized dehydroepiandrosterone (DHEA) produced under strict Good Manufacturing Practices (GMP) standards.

# **FUNCTIONS**

DHEA is a natural steroid hormone that is synthesized from cholesterol through pregnenolone by the adrenal glands. DHEA acts as an antagonist for glucocorticosteroid hormones and is the parent precursor for other important steroid hormones, such as estradiol and other estrogens, and testosterone. While not a precursor to progesterone, DHEA can indirectly influence progesterone synthesis through a feedback mechanism whereby pregnenolone is converted to progesterone based on DHEA levels. Apart from these functions, DHEA also has important biological functions itself. Recent experimental and human studies show that DHEA is involved in a large variety of physiological processes, including immune function, brain function, bone metabolism, blood lipid metabolism, energy metabolism, the regulation of normal blood sugar and insulin levels, and the maintenance of lean body mass. DHEA and its metabolite DHEA sulfate are present in human adult plasma in concentrations of 0.01-0.02  $\mu$ M and 5 to 7  $\mu$ M, respectively. DHEA sulfate levels are low in early childhood, begin to rise after age 7, peak at age 20-24, and then drop at a rate of approximately 20% per decade, until at age 85-90, levels are 10-15% of what they used to be at age 20-30. DHEA levels also decline under a variety of conditions of physiological stress, such as acute and chronic infections, and trauma. Vegetarians have been shown to have decreased DHEA levels as well.

# INDICATIONS

DHEA capsules may be a useful nutritional adjunct for individuals who wish to support the body's normal DHEA functions.

# FORMULA (WW #10045)

#### One Capsule Contains:

DHEA is micronized to increase absorption. It is made with pure, pharmaceutical grade DHEA.

### SUGGESTED USE

As a dietary supplement, adults take one (1) capsule daily with meals, or as directed by a healthcare professional.

### SIDE EFFECTS

Warning: Not for use by individuals under the age of 18. Do not use if pregnant or nursing. Do not exceed recommended serving. Discontinue use and call a physician or licensed qualified healthcare professional immediately if you experience rapid heartbeat, dizziness, blurred vision, or other similar symptoms.

## **STORAGE**

Store in a cool, dry place, away from direct light. Keep out of reach of children.

#### REFERENCES

Barrett-Connor E, Ferrara A. Dehydroepiandrosterone, dehydroepiandrosterone sulfate, obesity, waist-hip ratio, and noninsulin-dependent diabetes in postmenopausal women: the Rancho Bernardo Study. J Clin Endocrinol Metal 1996;81:59-64.

Barrett-Connor E, Kritz-Silverstein D, Edelstein SL. A prospective study of dehydroepiandrosterone sulfate (DHEAS) and bone mineral density in older men and women. Am J Epidemiol 1993;137:201-206. Berdanier CD, Parente JA, Jr., McIntosh MK. Is dehydroepiandrosterone an antiobesity agent? FASEB J 1993;7:414-419.

Daynes RA, Araneo BA, Ershler WB, Maloney C, Li GZ, Ryu SY. Altered regulation of IL-6 production with normal aging. Possible linkage to the age-associated decline in dehydroepiandrosterone and its sulfated derivative. J Immunol 1993;150:5219-5230.

De Pergola G, Triggiani V, Giorgino F, et al. The free testosterone to dehydroepiandrosterone sulphate molar ratio as a marker of visceral fat accumulation in premenopausal obese women. Int J Obes Relat Metab Disord 1994;18:659-664.

De Pergola G, Cospite MR, Giagulli VA, et al. Insulin-like growth factor-1 (IGF-1) and dehydroepiandrosterone sulphate in obese women. Int J Obes Relat Metab Disord 1993;17:481-483.

De Pergola G, Giagulli VA, Garruti G, et al. Low dehydroepiandrosterone circulating levels in premenopausal obese women with very high body mass index. Metabolism 1991;40:187-190.

Hall GM, Perry LA, Spector TD. Depressed levels of dehydroepiandrosterone sulphate in postmenopausal women with rheumatoid arthritis but no relation with axial bone density. Ann Rheum Dis 1993;52:211-214. Herranz L, Megia A, Grande C, Gonzalez-Gancedo P, Pallardo F. Dehydroepiandrosterone sulphate, body fat distribution and insulin in obese men. Int J Obes Relat Metab Disord 1995;19:57-60.

Ishihara F, Komatsu M, Yamada T, et al. Role of dehydroepiandrosterone and dehydroepiandrosterone sulfate for the maintenance of axillary hair in women. Horm Metab Res 1993;25:34-36.

Jakubowicz DJ, Beer NA, Beer RM, Nestler JE. Disparate effects of weight reduction by diet on serum dehydroepiandrosterone-sulfate levels in obese men and women. J Clin Endocrinol Metab 1995;80:3373-3376. Leblhuber F, Neubauer C, Peichl M, et al. Age and sex differences of dehydroepiandrosterone sulfate (DHEAS) and cortisol (CRT) plasma levels in normal controls and Alzheimer's disease (AD). Psychopharmacology (Bert) 1993;111:32,26

Psychopharmacology (Berl) 1993;111:23-26. Legrain S, Berr C, Frenoy N, Gourlet V, Debuire B, Baulieu EE. Dehydroepiandrosterone sulfate in a long-term care aged population. Gerontology 1995;41:343-351. Miklos S. Dehydroepiandrosterone sulphate in the diagnosis of osteoporosis. Acta Biomed Ateneo Parmense

Miklos S. Dehydroepiandrosterone sulphate in the diagnosis of osteoporosis. Acta Biomed Ateneo Parmense 1995;66:139-146.

Montanini V, Simoni M, Chiossi G, et al. Age-related changes in plasma dehydroepiandrosterone sulphate, cortisol, testosterone and free testosterone circadian rhythms in adult men. Horm Res 1988;29:1-6. Morales AJ, Nolan JJ, Nelson JC, Yen SS. Effects of replacement dose of dehydroepiandrosterone in men and

Wolaris AJ, Nolari JJ, Nelson JC, Tell SJ. Effects of replacement dose of derivate plandrosectore in men and women of advancing age. J Clin Endocrinol Metab 1994;78:1360-1367.
Nestler JE, Clore JN, Blackard WG. Dehydroepiandrosterone: the "missing link" between hyperinsulinemia and

Nestler JE, Clore JN, Blackard WG. Dehydroepiandrosterone: the "missing link" between hyperinsulinemia and atherosclerosis? FASEB J 1992;6:3073-3075.
Nordin BE, Robertson A, Seamark RF, et al. The relation between calcium absorption, serum

Norum BE, Kobertson A, Seamark KF, et al. The relation between calcium absorption, serum dehydroepiandrosterone, and vertebral mineral density in postmenopausal women. J Clin Endocrinol Metab 1985;60:651-657.

Orentreich N, Brind JL, Vogelman JH, Andres R, Baldwin H. Long-term longitudinal measurements of plasma dehydroepiandrosterone sulfate in normal men. J Clin Endocrinol Metab 1992;75:1002-1004.

Smith CP, Dunger DB, Williams AJ, et al. Relationship between insulin, insulin-like growth factor I, and dehydroepiandrosterone sulfate concentrations during childhood, puberty, and adult life. J Clin Endocrinol Metab 1980;68:973-937.

Szathmari M, Szucs J, Feher T, Hollo I. Dehydroepiandrosterone sulphate and bone mineral density. Osteoporos Int 1994;4:84-88.

Taelman P, Kaufman JM, Janssens X, Vermeulen A. Persistence of increased bone resorption and possible role of dehydroepiandrosterone as a bone metabolism determinant in osteoporotic women in late post-menopause. Maturitas 1989;11:65-73.

Usiskin KS, Butterworth S, Clore JN, et al. Lack of effect of dehydroepiandrosterone in obese men. Int J Obes 1990;14:457-463

Manufactured For:

Fireside Pharmacy 73847 Hwy III Palm Desert, CA 92260 760.346.1113