

# DHEA Plus™

## DESCRIPTION

DHEA Plus capsules, provided by Douglas Laboratories®, contain 25 mg each of highest purity dehydroepiandrosterone (DHEA) and pregnenolone. Both are 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 where 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 large variety of physiological processes, including immune system, 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 µM and 5 - 7 µM, respectively. DHEA sulfate levels are low in early childhood, begin to rise after 7, peak at age 20-24, and the drop at a rate of approximately 20% per decade, until at age 85-80, 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.

Pregnenolone is often referred to as the grandparent precursor to steroid hormones in mammals.

Pregnenolone is synthesized from cholesterol in the mitochondria of adrenal glands. Pregnenolone is also made to a lesser extent in the brain, liver, skin, testes and ovaries. Once synthesized, pregnenolone is released from the mitochondria into the cytosol

where it can be converted to DHEA

(dehydroepiandrosterone) or to progesterone.

Progesterone is the precursor to cortisol, aldosterone, androstenedione, estrogen, and testosterone.

Pregnenolone may also be secreted directly into the blood where it circulates primarily as the sulfated form. Pregnenolone has many actions of its own not attributable to its conversion to progesterone or to DHEA. Recent studies show that pregnenolone is important for the function of brain, nervous tissue, liver, pancreas, reproductive tissues, pituitary and skin. Pregnenolone is found in higher concentrations in the central nervous system compared to the peripheral tissues which may reflect its importance in brain function.

As with DHEA, pregnenolone production declines with age. It is estimated that pregnenolone production is about 60% less at age 75 than at age 35. Pregnenolone levels may also decline under various conditions of physiological stress, such as acute and chronic infections and trauma.

Supplementation of DHEA and pregnenolone together may assist the body's natural homeostatic balance of these hormones and subsequent metabolism.

## INDICATIONS

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

## FORMULA (DHP)

### Each capsule contains:

DHEA (Dehydroepiandrosterone).....	25 mg
Pregnenolone (3-alpha-hydroxy-5-beta-pregnen-20-one) .....	25 mg

## SUGGESTED USE

As a dietary supplement, take 1- 2 capsules daily, or as directed by the physician.

## SIDE EFFECTS

Please consult your physician before using this product. Not to be taken by individuals under the age of 18. Do

*(continued on reverse)*

not use this product if you have breast, uterine, ovarian or prostate problems. If you are at risk for or have prostate, breast, uterine or ovarian cancer you should not use this product. If you are pregnant, nursing or taking any prescription medication, especially other hormones or MAOIs (Monoamine Oxidase Inhibitors) consult with your physician before using this product. This product may cause changes in liver function, alterations in hormone profiles, increased facial hair, acne, and mood swings. This product may cause virilization in women.

## STORAGE

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

## REFERENCES

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**These statements have not been evaluated by the Food and Drug Administration.  
This product is not intended to diagnose, treat, cure, or prevent any disease.**

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