

## Pregnenolone Info

Pregnenolone is the ultimate parent steroid compound. All steroid hormones in the body (including cortisone, testosterone, estrogen, progesterone, DHEA, and others) are produced from pregnenolone, which in turn is synthesized from cholesterol. Progesterone and DHEA are also parent steroids in the sense that they can give rise to a number of other steroid species, but only pregnenolone is the ultimate precursor of all other steroid hormones.

Levels of endogenous (i. e. made in the body) pregnenolone decline with age, as do levels of DHEA. However, the normal levels of pregnenolone at various ages for each gender in humans have not been as clearly established as with DHEA.

The pathways from pregnenolone to the many other steroids (and the interrelationships among these steroids) is complex. While some benefits can be attributed to the relatively direct action of pregnenolone (for example, as a memory enhancer), many other benefits are a result of one or more of pregnenolone's direct or indirect "offspring<sup>2</sup>.

There seem to be many factors that determine how much of the pregnenolone in the body is: 1) used as pregnenolone, 2) converted to DHEA and used as DHEA, 3) converted to progesterone and used as progesterone, and 4) converted to either DHEA or progesterone and then converted into one or more other hormones (e.g. cortisol, testosterone and the venous estrogens). One of these factors is one's gender. Other factors are more variable throughout life, such as the many factors referred to collectively as "life-style<sup>2</sup> (e.g. diet, stress level, exercise habits), the presence of one or more diseases/health conditions, and stage of life (e.g. post-menopausal).

### Arthritis

One health condition is rheumatoid arthritis. Since it is a precursor to the production of cortisol in the body pregnenolone was used as early as the 1940s as a treatment for rheumatoid arthritis. In daily doses ranging from 50 mg to 700 mg, pregnenolone was found to be effective for this condition and to be much safer than the corticoids, salicylates, gold, and other drugs used as treatments at the time. Daily doses of pregnenolone above 200 mg appeared to be more effective than those below 200 mg. (Davidson)

### Fatigue

In the mid 1940s, several studies indicated that a daily dose of 50 mg of pregnenolone reduced fatigue and stress among factory workers, airline

pilots and other subjects (Pincus) Today, there are millions of people who suffer from stress and fatigue who may find relief with pregnenolone.

### **Memory Enhancement**

Pregnenolone has been found to play an important role in the acquisition of knowledge and the long term memory of learned behavior. (DeWied 1976, 1977). In a study with rats by Flood et al. (1995), pregnenolone was found to enhance memory at doses far lower than doses required of other steroids or steroid precursors, including DHEA.

Pregnenolone blocks the inhibitory amino acids glycine and gamma-aminobutyric acid (GABA), as well as non-NMDA glutamate. As a result, pregnenolone helps to regulate the balance between excitation and inhibition, a major dynamic in the central nervous system. (Wu)

### **Nerve Regeneration**

Administration of either pregnenolone or progesterone in mice also promoted myelin formation during nerve regeneration. (Koenig) (The myelin sheath is a membrane that protects or insulates various parts of the nerve cell, preventing short-circuiting or loss of neural transmission.) This suggests a possible role for supplemental pregnenolone in conditions involving demyelination, such as multiple sclerosis.

### **Women's Health Issues**

Many women have been recently turning to natural products to deal with women's health problems. Since pregnenolone converts to DHEA and then to estrogens, pregnenolone provides a safe estrogen replacement therapy for post-menopausal women. It also provides a natural source of progesterone, another important hormone for the health of the female reproductive system. Progesterone can help to control PMS.

Some products contain only Mexican Yam root as the source of "progesterone precursors." However, it is not clear that the steroids (principally diosgenin) in Mexican Yam can be converted to progesterone in human bodies. It is clear that diosgenin can be converted to progesterone through a number of chemical steps performed in a pharmaceutical factory.

Relative to DHEA (particularly in large amounts), pregnenolone is less likely to create masculinizing effects (e.g. facial hair) in women because it is less likely to increase testosterone levels in women.

### **TOXICITY / SAFETY:**

**Pregnenolone does not seem to have any negative side effects. However, please consult your health care provider if you are pregnant or nursing before using.**

**SUGGESTED USAGE :**

**Pregnenolone is absorbed well when taken orally. 10 - 50 mg per day (or as recommended by a health care practitioner).**