



PHARMACIST FORMULATIONS

CLINICAL APPLICATIONS

- Promotes Normal Hormonal Balance
- Helps Maintain Healthy Memory and Cognitive Function
- Supports Mood Regulation
- Supports the Stress Response System by Acting as Hormonal Precursor
- Supports Learning and Memory

Pregnenolone

What is Pregnenolone?

Pregnenolone plays a key role in hormonal balance as a key precursor to cortisol, dehydroepiandrosterone (DHEA) and progesterone, and helps to maintain balance in the body's stress response system. In addition, pregnenolone has been shown to support a balanced mood and promote cognitive health by modulating the transmission of messages between neurons, influencing learning and memory processes. Since there is strong evidence that pregnenolone levels diminish with advancing age, restoring these levels may also help support overall brain function and sense of well-being. Each serving includes 10 mg of pregnenolone in a scored, quick-dissolved tablet, allowing for incremental dosing as needed.

Overview

Pregnenolone is a prohormone that is synthesized in the brain and adrenals, but also in the liver, skin, brain, testicles, ovaries, and retina. As a biochemical precursor to DHEA and progesterone, pregnenolone helps maintain a normal balance between these hormones in the body and as a result, helps to modulate the cortisol-driven stress response system, support nerve cell growth and modulate mood.

In addition to its function as a prohormone, pregnenolone is a neurosteroid that is found in high concentrations in the brain where it protects neurons, enhances myelination and supports cognitive health and memory. Pregnenolone supplementation is particularly important for those who have been found to have deficient hormone levels through testing, as well as those who need cortisol-to-DHEA ratio support.

Deficiency†

Pregnenolone levels naturally peak during youth and begin a long, slow decline with age. Since pregnenolone is the parent compound of other vital neurosteroids such as DHEA,¹ declining levels of pregnenolone could leave brain cells increasingly vulnerable to overstimulation by neurotransmitters like glutamate,^{1,2} thereby affecting mood and cognition.

Mood Regulation†

Research has shown pregnenolone to be beneficial for mood support and balance.³ Specifically, pregnenolone is reported to have a positive effect on neuronal excitability and synaptic plasticity, and has many other functions associated with mood regulation, neuroprotection from free radicals, balancing the stress response and improving cognitive performance.³

In a study of 15 adults with mood imbalance, blood levels of pregnenolone were lower among those with low mood, compared to controls.⁴ Among 70 adults with mood imbalance who received either pregnenolone or placebo, the pregnenolone group trended toward greater improvement in mood, relative to the placebo group on rating scales.⁵ Additionally, an eight-week, double-blind, randomized, placebo-controlled study that compared 30 mg/day or 200 mg/day pregnenolone, 400 mg/day of DHEA, and placebo found those given the 30 mg pregnenolone had significant reductions in positive symptom scores along with an improvement in attention and working memory performance. Further improvements were not found among groups given higher amounts of pregnenolone.⁶

Learning and Memory†

Animal studies have demonstrated that both pregnenolone and DHEA support learning and healthy memory among the aging, initiated by balancing the activity of N-methyl-D-aspartate (NMDA) and gamma aminobutyric acid (GABA-A) receptors.^{7,8} Infusions of pregnenolone have been found to reverse memory deficits in animals, and the data suggests pregnenolone increases neuron regeneration and positively influences cognitive processes in senescent subjects, by increasing acetylcholine levels improving neurotransmission.⁹ Additional studies have shown pregnenolone to enhance neuritic outgrowth and growth of myelin, impart neuroprotective effects against free radicals that increase neurogenesis, promote healthy levels of inflammation, modulate the stress response system and increase GABA-A receptor responses. Pregnenolone administration has also been shown to positively modulate NMDA receptors, offering additional benefits for mental health.¹⁰

Directions

1 or more tablets per day or as recommended by your health care professional.

Does Not Contain

Gluten, yeast, artificial colors or flavors.

Cautions

Do not consume this product if you are pregnant or nursing. Consult your physician for further information.

Supplement Facts ^{V5}		
Serving Size 1 Tablet		
Servings Per Container 100		
	Amount Per Serving	% Daily Value
Pregnenolone	10 mg	*
* Daily Value not established.		

References

1. Stomati M, Monteleone P, Casarosa E, et al. Six-month oral dehydroepiandrosterone supplementation in early and late postmenopause. *Gynecol Endocrinol*. 2000 Oct;14(5):342-63.
2. Vallee M, Purdy RH, Mayo W, Koob GF, Le MM. Neuroactive steroids: new biomarkers of cognitive aging. *J Steroid Biochem Mol Biol*. 2003 Jun;85(2-5):329-35.
3. Ritsner M, S. Pregnenolone, dehydroepiandrosterone, and schizophrenia: alterations and clinical trials. *CNS Neurosci Ther*. 2010; 16(1):32-44).
4. Ritsner M, Maayan R, Gibel A, Weizman A. Differences in blood pregnenolone and dehydroepiandrosterone levels between schizophrenia patients and healthy subjects. *Eur Neuropsychopharmacol*. 2007 Apr;17(5):358-65.
5. Ritsner MS, Gibel A, Shleifer T, Boguslavsky I, Zayed A, Maayan R, Weizman A, Lerner V. Pregnenolone and dehydroepiandrosterone as an adjunctive treatment in schizophrenia and schizoaffective disorder: an 8-week, double-blind, randomized, controlled, 2-center, parallel-group trial. *J Clin Psychiatry*. 2010 Oct;71(10):1351-62.
6. Vallée M, Mayo W, Le Moal M. Role of pregnenolone, dehydroepiandrosterone and their sulfate esters on learning and memory in cognitive aging. *Brain Res Brain Res Rev*. 2001 Nov;37(1-3):301-12.
7. Meziane H, Mathis C, Paul SM, Ungerer A. The neurosteroid pregnenolone sulfate reduces learning deficits induced by scopolamine and has promnesic effects in mice performing an appetitive learning task. *Psychopharmacology (Berl)*. 1996 Aug;126(4):323-30.
8. Mayo W, Le Moal M, Abrous DN. Pregnenolone sulfate and aging of cognitive functions: behavioral, neurochemical, and morphological investigations. *Horm Behav*. 2001 Sep;40(2):215-7.
9. Marx CE, Bradford DW, Hamer RM, Naylor JC, Allen TB, Lieberman JA, Strauss JL, Kilts JD. Pregnenolone as a novel therapeutic candidate in schizophrenia: emerging preclinical and clinical evidence. *Neuroscience*. 2011 Sep 15;191:78-90.
10. Wu FS, Gibbs TT, Farb DH. Pregnenolone sulfate: a positive allosteric modulator at the N-methyl-D-aspartate receptor. *Mol Pharmacol*. 1991 Sep;40(3):333-6.