

PRESCRIPTION MONOGRAPH

Compounded Active Ingredients: Pregnenolone/DHEA

Form: Oral Capsule

Drug Class:

- Pregnenolone:
 - Endogenous steroid precursor (neurosteroid); the first product of cholesterol side-chain cleavage by CYP11A1 (P450_{scc})
 - Precursor to progesterone, DHEA, glucocorticoids, and sex steroids.
 - DHEA:
 - Endogenous steroid hormone precursor
 - Prohormone converted into estrogens and androgens
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Mechanism of Action^{1,2}: Together, they may provide upstream and downstream steroid precursors, offering broader hormonal coverage than either alone.

Pregnenolone is intended to:

- Drive hormone production by converting into progesterone, cortisol, DHEA, testosterone, and estrogens to direct fuel the body's steroid hormone pathways.
- Activate brain signaling to enhance excitatory NMDA activity and modulate GABA_A inhibition — supporting memory, alertness, and balanced mood.

DHEA is intended to:

- Restore androgen and estrogen precursors by converting to testosterone and estradiol, to support sexual, bone, and metabolic health.
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Indications Commonly Prescribed for:

- Adjunctive menopausal/andropausal symptom management
 - Genitourinary syndrome of menopause (GSM)
 - Investigational use in age-related cognitive decline, perimenopausal depression, and bipolar disorder
 - Occasionally compounded in anti-aging practices
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Before Use: Let your health care provider know if you have any medication allergies before you take this compounded preparation. Let your health care provider know if you have any liver or kidney problems. Let your healthcare provider know of all supplements you are currently taking.

Contraindications:

- Hormone-sensitive cancers (breast, prostate, endometrial): Both DHEA and pregnenolone can be metabolized into estrogens and androgens.
 - Undiagnosed vaginal bleeding.
 - Known hypersensitivity to either component.
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Cautions: Let your Healthcare provider know if you experience any adverse side effects.

Compounded medications are not FDA-approved and may differ in risks, benefits, and side effects from FDA-approved products. These statements have not been evaluated by the FDA and are not intended to diagnose, treat or cure any disease or condition and do not indicate any claims of safety or efficacy. Individual results may vary.

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How to Use: This compounded preparation is in the form of an oral capsule. Swallow the capsule whole with a glass of water. Do not chew or crush the capsule. If you miss a dose, take as soon as you remember, but not at the time for the next dose. Desired results may take up to several weeks.

Warnings and Precautions:

- Hormone conversion variability: Pregnenolone metabolism is inconsistent among individuals and may lead to unpredictable hormone levels.
 - Neuropsychiatric effects: Through neurosteroid pathways (e.g., NMDA/GABA_A modulation), may affect sleep, mood, or cognition—use caution in patients with unstable psychiatric illness.
 - Monitor in cardiovascular/metabolic risk patients: Both hormones can affect lipid profiles and insulin sensitivity.
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Adverse Reactions:

- DHEA: acne, oily skin, or hirsutism
 - Pregnenolone: Insomnia, agitation/activation, dizziness, acne or oily skin, GI upset
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Interactions:

- Hormone therapies (estrogen, testosterone, progesterone): Additive effects possible; may complicate hormone balance.
 - CNS drugs: Theoretical interactions through NMDA/GABA modulation.
 - Anticancer/anti-estrogen therapies (tamoxifen, aromatase inhibitors): Potential antagonism due to steroid conversion.
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Use in Specific Populations:

- Pregnancy/Lactation: Avoid; safety not established.
 - Pediatrics: Not recommended; insufficient evidence.
 - Older adults: Sometimes compounded for “anti-aging,” but benefits remain unproven; caution with comorbidities.
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Storage:

- Store in original container at room temperature (up to 30°C or 86°F)
 - Store in a cool dry place away from heat, sunlight, and moisture
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Monitoring Parameters:

- Clinical: Symptom relief (libido, mood, cognition, vaginal comfort), acne/hirsutism, sleep changes.
 - Laboratory: Consider baseline and periodic sex steroid panels (estradiol, testosterone, progesterone, SHBG) if systemic dosing is used.
 - Metabolic: Lipids, fasting glucose, blood pressure, especially in long-term compounded regimens.
 - Gynecologic: In women with a uterus on systemic estrogen exposure (from DHEA metabolism), ensure endometrial protection and monitor for bleeding.
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Citations:

1. Lin YC, Cheung G, Porter E, Papadopoulos V. The neurosteroid pregnenolone is synthesized by a mitochondrial P450 enzyme other than CYP11A1 in human glial cells. *J Biol Chem*. 2022;298(7):102110. doi:10.1016/j.jbc.2022.102110
2. Sigel A, Michalkova D, Capdevila A. Pharmacological activities of dehydroepiandrosterone: a review. *Clin Endocrinol (Oxf)*. 2019;90(4):633–642. doi:10.1530/EC-19-0155