

PRESCRIPTION MONOGRAPH

Compounded Active Ingredients: Thyroid

Form: Oral Capsule

Drug Class: Thyroid in natural desiccated form, derived from a porcine source. It is roughly a ratio of 1:4 for liothyronine(T3) to levothyroxine(T4).

Mechanism of Action¹:

Natural Thyroid is intended to:

- Restores missing thyroid hormones: Supplies both T4 (prohormone) and T3 (active hormone) to normalize circulating levels.
 - Activates metabolism: T3 binds nuclear thyroid receptors, driving gene transcription that increases energy use, oxygen consumption, and thermogenesis.
 - Regulates organ function: Improves cardiovascular output, growth, and neurological activity by restoring physiologic thyroid signaling.
 - Balances feedback loops: Lowers elevated TSH to normalize hypothalamic–pituitary–thyroid axis
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Indications Commonly Prescribed for:

- Replacement or supplemental therapy in hypothyroidism
 - TSH suppression in certain euthyroid goiters (e.g., multinodular, Hashimoto's) and as adjunctive management in differentiated thyroid cancer
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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:

- Untreated thyrotoxicosis.
 - Uncorrected adrenal insufficiency.
 - Apparent hypersensitivity to active components.
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Cautions: Let your Healthcare provider know if you experience any adverse side effects.

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:

- Boxed warning: Thyroid hormones must not be used for weight loss; high doses (especially with sympathomimetics) can cause serious or life-threatening toxicity.
 - Cardiovascular disease/elderly: Start low and titrate cautiously; watch for angina/arrhythmias.
 - Endocrine comorbidity: Thyroid therapy can alter warfarin response and diabetes control; monitor and adjust co-medications.
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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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Adverse Reactions:

- Palpitations/tachycardia, heat intolerance, sweating, tremor, nervousness, insomnia, diarrhea, weight loss, menstrual irregularities, transient hair loss
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Interactions:

- Oral anticoagulants (e.g., warfarin): thyroid hormones increase catabolism of vitamin K-dependent clotting factors, potentiating anticoagulation; monitor INR closely and adjust dose.
 - Antidiabetic agents (insulin/oral): requirements may change with initiation/adjustment of thyroid therapy; monitor glycemic control.
 - Bile acid sequestrants (e.g., colestipol): decrease absorption of T4/T3; separate by 4–5 hours.
 - Estrogens/oral contraceptives: may increase thyroid hormone requirements in athyreotic patients.
 - Iodine/iodinated contrast & amiodarone: can alter thyroid function status; monitor where relevant
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Use in Specific Populations:

- Pregnancy: Continue therapy; adjust to keep TSH in trimester-specific range
 - Lactation: Minimal excretion into milk; use with caution
 - Pediatrics: Treat congenital hypothyroidism promptly; monitor closely
 - Geriatrics/CAD: Start low, go slow due to arrhythmia/ischemia risk
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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:

- Primary marker: TSH (with free T4), plus clinical status. After any dose change, re-check in ~6–8 weeks (steady state). On a stable dose, check every 6–12 months.
 - Label-based guidance²: During initiation, labs often normalize within 2–3 weeks; early readjustment within the first 4 weeks may be warranted.
 - Pregnancy: Measure TSH (and free T4) at confirmation and at least once per trimester (many protocols: every ~4 weeks until ~20 weeks or stable).
 - Monitor HR/BP, symptoms of over- or under-replacement; review interacting meds at each visit.
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Citations:

1. Hoang TD, Olsen CH, Mai VQ, Clyde PW, Shakir MK. Desiccated thyroid extract compared with levothyroxine in the treatment of hypothyroidism: a randomized, double-blind, crossover study. *J Clin Endocrinol Metab*. 2013 May;98(5):1982-90. doi: 10.1210/jc.2012-4107. Epub 2013 Mar 28. PMID: 23539727.
 2. Thyroid (desiccated) (Armour Thyroid, Adthyza). Medscape Reference. Updated August 2024. Available at: <https://reference.medscape.com/drug/armour-thyroid-adthyza-thyroid-desiccated-342736>. Accessed September 17, 2025.
 3. MedicineNet. Thyroid desiccated: Uses, warnings, side effects, dosage. MedicineNet. Reviewed by Sarfaroj Khan, BHMS, PGD Health Operations. Available at: https://www.medicinenet.com/thyroid_desiccated/article.htm. Accessed September 17, 2025.
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