



Hypothyroidism & Hair Loss

Thyroid and Hair Loss: An Overview

Thyroid hormones play a crucial role in regulating **hair growth, follicle cycling, and scalp health**. Both **hypothyroidism and hyperthyroidism** can lead to **diffuse hair thinning, brittle hair**, and in some cases, **alopecia**.

How Thyroid Dysfunction Affects Hair Growth

Hair growth follows a **three-phase cycle**:

1. **Anagen (growth phase)**
2. **Catagen (transition phase)**
3. **Telogen (resting phase, followed by shedding)**

Thyroid dysfunction disrupts this cycle, often pushing more hair follicles into the **telogen phase**, leading to excessive shedding (**telogen effluvium**).

Hair Loss in Hypothyroidism

💡 *Common Signs:* Diffuse hair thinning, dry/brittle texture, loss of eyebrows (outer third)

Mechanisms:

- **Reduced follicular turnover:** Thyroid hormones stimulate **stem cells in hair follicles**. Low levels cause follicles to remain in **telogen (shedding phase)** longer.
- **Decreased circulation:** Poor microcirculation affects **oxygen and nutrient delivery** to hair follicles.
- **Impaired keratin production:** Thyroid hormones regulate keratinocytes, which are essential for strong, healthy hair.
- **Autoimmune connection:** Hashimoto's thyroiditis (autoimmune hypothyroidism) is linked to **alopecia areata**, an autoimmune form of hair loss.

◆ Key Nutrients to Support Hair Growth in Hypothyroidism:

- **Iodine & Selenium:** Essential for thyroid hormone synthesis
- **Iron & Ferritin:** Low ferritin (<40 ng/mL) is linked to hair shedding
- **Zinc & Biotin:** Crucial for hair structure and follicle health
- **L-Tyrosine:** Precursor for thyroid hormone production

Hair Loss in Hyperthyroidism

💡 *Common Signs:* Generalized thinning, fine texture, accelerated shedding

Mechanisms:

- **Increased follicle turnover:** Excess thyroid hormones shorten the **anagen (growth phase)**, causing rapid cycling and early shedding.
 - **Nutrient depletion:** Overactive thyroid function depletes **iron, zinc, and B vitamins**, all essential for hair health.
 - **Increased stress hormones:** Hyperthyroidism often leads to **high cortisol levels**, which can trigger hair loss.
 - ◆ **Key Nutrients to Support Hair Growth in Hyperthyroidism:**
 - **Protein & Amino Acids:** To counteract muscle & tissue breakdown
 - **Iron & B12:** Often depleted due to increased metabolism
 - **Adaptogens (Rhodiola, Ashwagandha):** Support adrenal function & reduce stress-related shedding
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Post-Thyroid Treatment Hair Shedding

- **Levothyroxine Adjustments:** Rapid changes in thyroid medication can trigger **temporary hair shedding**.
 - **Balancing T3 & T4:** Some patients respond better to **natural desiccated thyroid (NDT)** or a **T4/T3 combination** rather than T4-only therapy.
 - **Autoimmune Considerations:** Hashimoto's patients may still experience hair loss even with normal TSH if inflammation and autoimmunity remain unresolved.
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Best Practices for Thyroid-Related Hair Loss

- ✓ **Optimize Thyroid Levels:** Ensure TSH, Free T3, and Free T4 are in an optimal range (not just "normal").
 - ✓ **Address Nutrient Deficiencies:** Check **ferritin, zinc, vitamin D, and B12 levels**.
 - ✓ **Support Scalp Circulation:** Topicals like **magnesium oil, rosemary essential oil, and red light therapy** can enhance follicle function.
 - ✓ **Manage Stress & Autoimmunity:** Reduce inflammation with **omega-3s, adaptogens, and a low-inflammatory diet**.
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