

## Healthy Hair

Hair thinning and loss is common with aging. Over 60% of women report 'hair loss' with aging. The main contributing factor is genetics. Stress also causes hair loss. Over-processing hair is a very common cause of hair loss and breakage in women. Coloring hair (even semi-permanent) more than every 10-12 weeks damages hair, causes it to become thin, brittle and lifeless.

**PRESCRIPTION MEDICATIONS including statins, blood pressure medications, H2 blockers, antidepressants and many others**, can also cause hair loss in both men and women.

**Testosterone and thyroid deficiency (or thyroid excess)** can cause hair loss. Hair becomes fine, lifeless, dry and brittle, breaking easily. The scalp becomes dry and may flake or itch. Like other cells in the body, skin and hair follicles require adequate levels of hormones to remain healthy.

Even after a patient receives hormones, the damaged hairs may continue to 'fall out'. When thyroid deficiency or excess is corrected, it may take months to see the new hair growth. With testosterone therapy, the skin and scalp become healthier and new hair growth is noticeable within a month.

**Iron deficiency** can also cause hair loss along with other symptoms like fatigue and brittle nails.

Overuse of **alcohol** (toxin) can cause hair loss and depletion of essential nutrients.

Some people may be confused over the term 'androgenic alopecia'. This refers to male pattern baldness and is not usually associated with testosterone or androgen excess. Hair loss, in postmenopausal women is NOT associated with androgen excess. At the Millennium Wellness Center we see significant hair loss in women who are **testosterone deficient**. In addition, 63% of patients with 'thinning' hair report hair re-growth on testosterone pellet therapy. Rarely, women with high levels of androgens may experience 'male pattern' hair loss if they convert testosterone to DHT in the scalp/ hair follicle. **DHT** is the metabolite of testosterone that can cause hair loss. The conversion can be blocked by a medication called Finasteride. Adjusting the dose of testosterone may help. Also, **low estrogen** may contribute to hair loss. Estrogen may be added in women who do not 'aromatize' enough estrogen from testosterone. High estrogen in men may contribute to hair loss.

### *Healthy Hair Recommendations*

1. HORMONE BALANCE (testosterone, thyroid, estrogen if needed)  
**Too much thyroid medication is a common cause of hair thinning\***
2. **STOP SODA, DIET SODA** and all artificial sweeteners.
3. Avoid chemicals (Chlorine, permanents, color) and harsh shampoo (which strip the oil).
4. Check 'side effects' of **medications** for hair loss
5. Diet: whole foods (fat and protein) eggs, nuts, seeds, fruits and vegetables  
Avoid 'processed' carbohydrates, sugars and processed **protein drinks**
6. **Insulin resistance, obesity, metabolic syndrome and diabetes cause hair loss in men and women**
7. Supplements (Many nutrients are found in egg yolks, nuts and other whole food)  
**Iron (45 mg slow release)**, if iron deficient. (Optimal iron and ferritin  $\geq 80$  ug)  
Iron may be better absorbed if taken with Vitamin C.  
Biotin 5-10 mg per day, L-lysine, Iodine *if* iodine deficient  
Essential fatty acids (Nordic Natural Fish Oil Capsules, Flax seed)
8. If you drink alcohol, avoid dehydration and supplement with Vitamin C (1000 mg), Zinc (50 mg), **Thiamin (500 mg), and Cysteine or NAC (500 mg)**
9. Topical Minoxidil (Rogaine) OTC
10. Exercise increases blood flow to the scalp
11. Stress reduction (**STRESS**, including surgery/anesthesia, is a common cause of hair loss)
12. Finasteride (0.5-1 mg/d) used 'off label' in women

\*A common cause of hair loss is **too much thyroid hormone** (TSH < 0.5). Balancing hormones with testosterone improves thyroid function by freeing up thyroid hormone. Doses of thyroid medication may need to be lowered. Testosterone also increases red blood cells, which binds iron and can contribute to iron deficiency and hair loss.

**Recommended serum testing**; Iron, ferritin (iron storage protein) and TSH