

## Healthy Hair

Hair thinning and loss is common with aging. Over 60% of women report 'hair loss' with aging. 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 to become finer, losing body, wave and shine. Hair becomes 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** can contribute to hair loss.

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 have low testosterone. 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. Lowering the dose of testosterone may help. Also, low estrogen may contribute to hair loss. Estrogen therapy may be added in women who do not 'aromatize' or make enough estrogen from testosterone.

### *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 levels iron AND ferritin  $\geq 80$  ug)  
Iron may be better absorbed if taken with Vitamin C.  
Iodine *if* iodine deficient.  
Minimal data to support the following supplements  
Biotin 5-8 mg per day, Zinc, L-lysine  
Essential fatty acids (Nordic Natural Fish Oil Capsules, Flax seed)
8. Read about **medications**. Doctors will not know about all side effects, especially hair loss.
9. Topical Minoxidil (Rogaine) OTC
10. Exercise increases blood flow to the scalp
11. Stress reduction (**STRESS**, including surgery/anesthesia, is a 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). 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 bind iron and can contribute to iron deficiency and subsequent hair loss.

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