

THE DERMATOLOGIST'S GUIDE TO HAIR LOSS

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If you've experienced hair loss, or hair thinning, then you know exactly how upsetting it can be.

I've discussed hair loss with many patients, and I know that there are usually a number of questions surrounding it. Is my hair loss due to an internal condition? Is it due to a nutritional deficiency? And will my hair ever regain its former fullness?

As a dermatologist, we can't answer those questions until we ask several others. We also need to examine your scalp. That's because there are a number of potential causes for hair loss, and they require different treatment approaches.

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Here's how dermatologists typically approach hair loss:

- 1. One of the first questions your dermatologist will ask is if your hair loss is patchy or more generalized.**

Patches of hair loss can be due to a number of different causes. Some of these, if not treated in time, can even lead to scarring and permanent hair loss, which is why you should see your dermatologist for an exam and evaluation.

One of the first conditions we'll consider in children is ringworm, a fungal infection. (While this is more common in children, it can sometimes be seen in adults.) Fungal infections cause redness and flaking, and sometimes even pus bumps, in a circular patch of hair loss. Effective treatment requires medications by mouth.

Another potential cause of patchy hair loss is alopecia areata, a condition in which the immune system attacks the hair follicles. Other potential causes include skin conditions such as lichen planus, discoid lupus, and others.

If you're experiencing more generalized hair loss, such as overall thinning of the hair, then we'll ask other questions.

- 2. Are there any changes on the skin of the scalp along with the hair loss? This may indicate certain inflammatory skin conditions.**

If you're seeing redness, flaking, or scarring on the scalp, that's a potential clue to the presence of inflammation, and the need for treatment. Signs like this are an indication that you need to see your dermatologist.

3. Is your hair falling out by the roots in large amounts?

If so, then you might have telogen effluvium. Telogen effluvium (TE) is a condition in which the hair follicles go into a state similar to hibernation. In this state, the hairs may fall out by their roots in large amounts.

Sometimes patients with TE will describe what I call "the hairbrush sign": all of a sudden, whenever they brush their hair, that gentle action alone will pull out many more strands of hair than usual. Patients may also describe lots of hair falling out in the shower.

That's a sign that the hair follicles have gone into "hibernation". The medical term for this condition is telogen effluvium, and it indicates that the hair follicles have entered the telogen, or resting phase. Hair follicles cycle through different phases of growth, and in the resting phase, those hairs are very easily dislodged. They come out by the roots, which is why you'll see so many hairs in your hairbrush or in the shower drain.

Any severe physical stress to the body can trigger this state of hair follicle hibernation. Some common causes are pregnancy, severe illness, surgery, and even sudden rapid weight loss or low protein diets. Sometimes extreme stress can trigger this also. The hair loss is usually seen about 3 to 6 months after the triggering event, and it can then take another 3 to 6 months (or even longer) for the condition to reverse. But the good news is that, for most people, it does reverse.

4. Have you had your thyroid and iron levels checked?

Sometimes internal conditions can lead to hair loss. The most common of these are changes in thyroid levels or low iron levels.

5. Do you have any other symptoms, such as fatigue or weight gain? Even if you don't have any other symptoms, your dermatologist will often recommend testing for thyroid function.

If you have generalized hair thinning or hair loss, one of the first conditions I'll consider is hypothyroidism. This refers to low thyroid hormone levels. In this state, some people will also experience other signs and symptoms, such as fatigue, weight loss, and feeling cold all the time. Other people won't have any symptoms at all.

That's why we often recommend testing thyroid function, via a lab test, in patients with generalized hair thinning. Treatment with thyroid hormone will usually reverse the hair loss, although it can take a while to see hair regrowth.

It's also important to note that other hormonal changes can trigger hair loss, such as a rise in androgen levels. If you have other medical conditions, you'll need to discuss these with your dermatologist.

6. Are you at risk for nutrient deficiencies? Some surprising factors can put you at risk, such as being a premenopausal woman.

When we think about all-over hair thinning, one other potential cause to consider is nutrient deficiencies. The most common of these is iron deficiency, especially in premenopausal women due to menstrual blood loss.

Low iron may result in anemia, which shows up on lab testing as a low hemoglobin level. Even without anemia, though, you may have low iron stores. This is diagnosed via a blood test, specifically a serum ferritin level.

Other nutrient deficiencies can also trigger hair loss. The table below, from an article we published on the topic of diet and hair loss, outlines risk factors for certain nutrient deficiencies. If you fall into one of these categories (such as being vegan or having medical conditions that result in malabsorption) then we recommend testing for nutrient levels.

Recent research suggests that if your hair loss is associated with scalp symptoms, especially itching or burning of the scalp, then you're at higher risk for B12 deficiency, and may need to get tested for that nutrient as well.

7. What medications, herbs, and supplements do you take? Many surprising medications and supplements can trigger hair loss, such as vitamin A in high doses.

It's important to look at all of the medications, herbs, and supplements that you take, and discuss these with your physician. Hair loss can be triggered by a number of different medications and supplements, although there's a lot of variability in how individuals react to medications. Some possible triggering medications include steroids by mouth, antidepressants, and isotretinoin. Isotretinoin (also known as Accutane) is a derivative of vitamin A that's used to treat severe acne. In fact, even vitamin A in high doses can trigger hair loss.

8. **Don't take a hair loss supplement without reading this first.**

When people first notice hair loss, sometimes they turn to hair loss supplements. But that can actually be a problem.

Why? For several reasons.

The first is that **high doses of some common vitamins and minerals can actually trigger hair loss.**

We know that vitamin A in high doses can trigger hair loss. But there are other vitamins and minerals that can also trigger hair loss, including vitamin E and selenium.

In one of our published medical journal articles, we reviewed the link between diet and hair loss. We looked at the ingredients of common hair loss supplements sold online, and found that many contain Vitamin A, Vitamin E, selenium, or even a combination of these. This can be a problem, depending on the doses, and especially if you're already getting more than enough of these nutrients in your diet. That's because excessive levels of these nutrients in your body can actually lead to more hair loss.

The second issue with supplements is the lack of FDA oversight. **The FDA does not require ANY studies of effectiveness, or even any studies proving safety, prior to a supplement hitting the market.**

In other words, the FDA does not regulate herbs and supplements in the same way that they do pharmaceuticals. With prescription medications, the manufacturer needs to prove safety and efficacy prior to marketing a medication. With herbs and supplements, there's no such requirement. A manufacturer can just start selling them. And while you would assume that supplement manufacturers would follow good manufacturing practices, there's plenty of evidence to show that some of them just don't.

Recalls have been issued for multivitamins that contain extremely high doses of some vitamins and minerals, and other products that have been adulterated with prescription medications. A number of products have been recalled due to bacterial or fungal contamination.

The third issue with supplements is that **they may contain ingredients that have the potential to cause dangerous interactions with other medications.** You should be especially careful if you're reaching for a supplement with multiple ingredients, because the FDA does not require any warning labels on supplements about interactions. For example, saw palmetto, which is found in some OTC "hair loss supplements", has been reported to potentially interact with medications such as coumadin to increase bleeding time.

Finally, remember that for some herbal products, we just don't know the potential long-term side effects, because those studies just haven't been done. This is true even for

supplements with published studies that have reported on short-term safety. For example, if a supplement contains ingredients that have hormone-like effects, what happens when you take that product for 2 years or more? For many, we simply don't know.

It's very challenging to keep up with these issues, because there are more than 50,000 supplements sold in the United States. If you're considering a supplement, or if your physician has recommended a specific vitamin or mineral that you should be taking, I recommend seeking an independent review to identify which brands and products are of the highest quality.

One resource that provides independent laboratory testing and medical literature reviews of supplements is Consumer Lab (www.ConsumerLab.com).

9. Even without a family history of hair loss, you can develop male pattern or female pattern hair loss.

If your dermatologist has excluded other potential causes of generalized thinning, then you may have what is known as male pattern or female pattern hair loss. While some people have a family history of this type of hair thinning, others do not.

Do you have a family history of hair loss? Surprisingly, this question is not as predictive of hair loss as one would think. The genetics of hair loss are complex, and although a family history of early hair loss may lead to an increased risk in some persons, many people develop hair loss despite having no family history of the condition.

In men, we call this male pattern hair loss, and one of the features is a receding hairline. In women, this is called female pattern hair loss, and this is usually first seen as a widening part or thinning of the hair on the crown of the scalp. With thinning on the crown, you may be able to see the scalp more easily.

For this type of hair loss, your dermatologist will usually recommend using topical minoxidil (brand name Rogaine), which may be applied to the scalp in the form of drops or a foam. This is sold over the counter. (See below for more details.) For men, a prescription medication known as finasteride 1 mg (brand name Propecia), taken by mouth, may be prescribed by your physician.

10. No over the counter shampoos or oils have been proven to help slow down hair loss, although some may help minimize the visible appearance of hair loss.

Patients often ask me if any over the counter products can be used to help reduce hair loss. In terms of shampoos and oils, none have been proven to help slow down hair loss. Some of the shampoos, such as volumizing shampoos, may be reported to be helpful because they change the appearance of the hair to minimize the visible effects of

hair loss. However, they have never actually been shown to regrow hair or prevent further hair loss.

11. OTC minoxidil solution or foam, if used correctly, may help slow down male and female pattern hair loss

The only product that has been proven to slow down hair loss, available over the counter, is minoxidil (brand name Rogaine) for men or women. The versions for men and women use different concentrations of the active ingredient. (In women, it would not be recommended for those who are pregnant or breastfeeding.) In some cases (but not typically) it may even help regrow hair.

Rogaine is sold over the counter in most drug stores. It comes in a liquid and a foam form. Either version may be used, depending on which you prefer. The product must be applied twice a day to achieve the best results. It must be applied directly to the scalp, and not just to the hair. When washing your hair, make sure the product is applied AFTER washing hair. In order to maintain the effects of Rogaine, you must continue to use the product.

12. For male and female pattern hair loss that does not respond to OTC treatment, see your dermatologist to discuss other potential treatments

The evaluation of hair loss will include these questions, as well as a physical exam of the scalp and possibly lab work. While treatment may help, in some cases hair loss can be very persistent and does not respond to treatment as well as we would like. In those cases, sometimes other treatments are recommended. These include platelet rich plasma (PRP) treatments of the scalp or hair transplants in some cases.