



Hair Loss? It May Be Iron Deficiency

Too Little Iron in Blood of Men and Women Shedding Hair

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May 17, 2006 - If you're losing hair, you may have an iron deficiency.

A review of 40 years of research shows that iron deficiency has a much closer link to hair loss than most doctors realize. It may be the key to restoring hair growth, Cleveland Clinic dermatologists find.

"We believe that treatment for hair loss is enhanced when iron deficiency, with or without anemia, is treated," Leonid Benjamin Trost, MD; Wilma Fowler Bergfeld, MD; and Ellen Calogeras, RD, MPH, write in the May issue of the *Journal of the American Academy of Dermatology*.

It's a controversial issue. Not every study shows a link between iron deficiency and hair loss. Trost says there's not enough hard evidence -- yet -- to make iron-deficiency screening a routine procedure for people with hair loss.

But study researcher Bergfeld has been doing this for years. And she's finding that whatever the cause of hair loss -- for both women and men -- having too little iron in the blood makes it worse.

"What Dr. Bergfeld has found in decades of experience, is when she treats patients for iron deficiency --even in the absence of anemia -- it can maximize their ability to regrow hair," Trost tells WebMD. "It is not the silver bullet for baldness, but it can definitely help maximize how a patient regrows hair."

The Cleveland Clinic isn't alone in doing this. George Cotsarelis, director of the University of Pennsylvania Hair and Scalp Clinic, has studied iron supplementation in women with various forms of hair loss.

"From our clinic's experience, it is clear to me that if you replenish hair-loss patients' iron stores with iron supplements, they are more likely to regrow hair, or at least stop hair shedding," Cotsarelis tells WebMD. "And they don't have to be anemic. That is the biggest mistake doctors make."

An even bigger mistake would be for balding people to take iron supplements on their own. Unless you have iron deficiency -- diagnosed by a doctor -- iron supplements can lead to a very dangerous condition from iron overload.

Hair Loss May Be a Symptom of Serious Illness

A sensitive way to check total body iron stores is to measure the amount of ferritin in the blood. Ferritin is a protein that plays an important role in iron storage. As a general rule, the less ferritin in the blood, the less iron a body has stored up.

Cotsarelis and Trost say that what most doctors consider to be a normal ferritin level is, in fact, too low. Ferritin levels of 10-15 ng/mL are within the "normal" range. Cotsarelis says a ferritin level of at least 50 ng/mL is needed to help replenish hair. Trost and Bergfeld shoot for 70 ng/mL.

"Doctors see ferritin levels in the normal range, and don't do anything," Cotsarelis says. "But the normal range is wrong, I think. The normal range for women is 10-120 ng/mL, and for men it is 30-250 ng/mL. Why should a man's be lower than a woman's? Mostly because women are iron deficient. It is almost a public health problem. Hair loss is only an indication of this."

Cotsarelis and colleagues have found that women with hair loss have significantly lower iron stores than women without hair loss. Surprisingly, this was particularly true for women with alopecia areata, a form of hair loss caused by haywire immune responses.

"Our theory is that lower iron levels decrease the threshold for developing hair loss of any kind in genetically predisposed individuals," Cotsarelis says. "So people prone to develop even hereditary hair loss, if their iron levels are low, it accelerates that process. We think it's because the hair follicles grow so much, they require a lot of iron."

Women who frequently have heavy menstrual periods often become iron deficient. "If you have a healthy woman with hair loss, you can assume iron deficiency," Trost says.

Iron deficiency is less common in men and postmenopausal women than in women of childbearing age. But it's something Cotsarelis and Trost see often in people with hair loss. Especially when it gets to the point of anemia, iron deficiency can be a symptom of very serious illness. It's important for a doctor to find out why this is happening.

"If you have a man or a postmenopausal woman with iron-deficiency anemia, you need to do a workup to find out why," Trost says. "Say you have a 55-year-old man with iron-deficiency anemia -- it could be caused by bleeding due to coloncancer. Believe it or not, someone can come in complaining of hair loss, and find out it is something serious."

Don't Take Iron Supplements Without Doctor Visit

Iron supplements are not a cure for baldness. But as part of a multipronged approach, Cotsarelis and Trost say, supplements can be a big help.

So is a diet full of iron-rich foods, such as tofu, lentils, beans, oysters, spinach, prunes, raisins, and, yes, lean beef.

Trost says he and Bergfeld usually recommend these foods, plus supplementation with ferrous sulfate, 325 milligrams per day taken on an empty stomach.

It's not an easy supplement to take.

"Iron supplements cause constipation and gastrointestinal upset," Cotsarelis says. "We try different preparations, but they but all seem to have similar problems. And there is some anecdotal evidence that orange juice, vitamin C, or lysine, if take together with the iron, helps the absorption."

Do not take iron supplements unless a doctor has told you that you have iron deficiency, Trost warns.

"Iron supplements are available over the counter, but we recommend you take them only under the supervision of a doctor," he says. "It is safe, when used appropriately, but if taken when inappropriate it can cause some harm. If you take a too-high dose of vitamin C, your body eliminates it -- but iron doesn't work that way. Your body can regulate how quickly it uptakes iron, but has no way to get rid of it quickly. If you are not deficient, you can get iron overload, which can be dangerous."

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Sources 

SOURCES: Trost, L. B. *Journal of the American Academy of Dermatology*, May 2006; vol 54: pp 824-844. Leonid Benjamin Trost, MD, resident physician, department of dermatology, The Cleveland Clinic, Ohio. George Cotsarelis, director, hair and scalp clinic; and professor of medicine, University of Pennsylvania School of Medicine, Philadelphia.

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