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Evaluating Hair Loss in Women: Are blood tests really needed?

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That answer, in my opinion, is a resounding - "yes." *All women with concerns about hair loss need blood tests.* The reason is simple: there are a great number of similar looking hair loss conditions in women and if one thinks they can confidently, with 100% certainty, rule out any particular condition just by looking at the scalp they are wrong. One can not exclude a contribution from low iron or a thyroid disorder even in a woman presenting with classic androgenetic alopecia. Let's take a closer look why blood tests are needed.

For a review of blood tests typically recommend as part of a screening work up click on the following

[SCREENING BLOOD TESTS FOR WOMEN WITH HAIR LOSS.](#)

1. Iron deficiency anemia is common

About 1 out of every 5 women age 18-45 have iron deficiency. It's common. Given that low iron levels may be associated with a variety of different hair loss conditions, it is important to test for it and supplement iron in women whose blood tests show low iron. Even if one were to argue that low iron levels are seldom really a true factor in hair loss, studies have also shown that supplementation with iron may allow other treatments to work better.

In 1992, Drs Rushton and Ramsay conducted a study looking at women with genetic hair loss who were being treated with an antiandrogen medication (called cyproterone acetate). The researchers showed that women with iron levels above 40 had much better results with the antiandrogen pill than women who had iron levels below 40.

2. Blood counts

Ordering a basic blood count (for levels of red cells, white cells) is important. It's not a very specific test, but when the levels come back abnormal, it signals something may be wrong. A common reason for low hemoglobin and a low number of red cells levels is iron deficiency. But a variety of internal illness also have as part of their presentations low blood counts. A basic screen is helpful.

My work up is very different when a female with hair loss has an abnormal blood count. A 31 year old female with low hemoglobin and low ferritin, may have this result from heavy menstrual cycles, but may also have this from celiac disease as well. Depending on the patient and specific details, I may order a so called 'celiac panel' as well. A 66 year old female with low hemoglobin and low ferritin who comes into my clinic for hair loss may need a comprehensive work up by her physician to rule out a cancer.

3. Thyroid abnormalities are common

About 1 out of every 15-20 individuals will be diagnosed with a thyroid disorder in their lifetime. These thyroid conditions are 8 times more common among women. While it's true that many with thyroid disease will notice symptoms, about one half will not notice any problems at first. Hair loss is frequently part of the collection of symptoms that come with thyroid dysfunction. Testing for thyroid disease in women with hair loss is important.

4. Vitamin D deficiency is common

Vitamin D deficiency is common. Here in Canada, [studies have shown](#) that about two-thirds of the population is low in vitamin D and levels tend to be lower in winter than summer. The exact role of vitamin D in hair loss is still being worked out but it's clear that individuals with alopecia areata and genetic hair loss have lower vitamin D levels than individuals without hair loss.

5. Zinc deficiency

Zinc deficiency is not common in North America. Nevertheless, zinc deficiency does exist in a number of subgroups in the North American population and is likely more common than appreciated. About 12 % of the general population and up to 40-50 % of the elderly are at risk for zinc depletion in North America. In many parts of the world, zinc deficiency is extremely common. In North America, zinc deficiency is frequently asymptomatic - meaning that individuals with low zinc don't necessarily have symptoms. Zinc deficiency can be associated with hair loss as well as a variety of issues related to immune system function and infection. The recommended amount daily is 11 mg for men and 8 mg for women.

6. Hormone Testing

Most women with hair loss do not require complex and extensive hormonal work-ups that so often are seen. However women with irregular periods, acne, excessive hair growth on the face (hirsutism), difficulty conceiving/infertility, early menopause and abnormal or rapid hair loss do require hormone tests.

Conclusion

Complete blood counts, along with tests for iron status (ferritin test) and thyroid status (TSH) are among the most important tests for all women with concerns about hair loss. Other tests may also be important for any particular individual but the exact test to order depends on the information obtained during the patient interview. Too often I hear it said that a female patient does not need blood tests. For example, I often hear it said that a female presenting with classic androgenetic alopecia does not need blood tests because classic androgenetic alopecia is not associated with blood test abnormalities. Here, one needs to consider that classic androgenetic alopecia may be associated with [low vitamin D](#) and research has even shown that it may be associated with [cholesterol abnormalities as well](#) (low HDL, high LDL). If one feels they can exclude with certainty that this patient does not have iron deficiency or a thyroid disorder, they are incorrect.

All women with hair loss need blood tests.

REFERENCE

Rushton DH, et al. The importance of adequate serum ferritin levels during oral cyproterone acetate and ethinyl oestradiol treatment of diffuse androgen-dependent alopecia in women. Clinical Trial. Clin Endocrinol (Oxf). 1992.

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