

Ferritin

Ferritin is the name given to your body's iron reserve protein. Ferritin is required for transport of T3 to cell nuclei and for the utilization of the T3 hormone. Ferritin deficiency can result in fatigue, cold intolerance, breathlessness, tongue abnormalities, and hair loss. Ferritin hair loss presents as increased hair loss during shampooing and brushing as well as overall thinning of hair without a specific pattern or bald

spots. This means you'll find that your hair feels thinner all over and is less dense.

Ferritin levels can also be measured and will be a better predictor of how much iron you have stored in your body and available for use. Ferritin should be checked in all women with Hashimoto's and in anyone experiencing hair loss.

Normal ferritin levels for women are between 12 and 150 ng/mL. According to some experts, ferritin levels of at least 40 ng/mL are required to stop hair loss, while levels of at least 70 ng/mL are needed for hair regrowth. The optimal ferritin level for thyroid function is between 90 and 110 ng/mL.

Iron from foods comes in two types: the heme and nonheme versions. The heme version is better absorbed and is found primarily in animal products. The highest levels of iron are found in organ meats ... yes, delicious liver. Beef, turkey, and chicken are the next best choices. (Sorry to all of my vegetarian friends.) In contrast, nonheme iron is found in nuts, beans, and spinach and is not usually absorbed as well.

To restore your iron levels, you can eat cooked liver twice per week or beef a few times per week. Vitamin C increases the absorption of iron, so taking a vitamin C tablet or eating a vitamin C-rich food such as cooked broccoli along with an iron-rich food is the best way to increase iron and ferritin levels. Creating an acidic stomach environment by taking a betaine with pepsin supplement with meals can be helpful as well.

You can also take iron supplements. However, most of them are in the nonheme form and may not be absorbed well. Additionally, many people find that they get terrible stomachaches from the supplements, and they find them extremely constipating!

If choosing to take iron supplements, do so with much caution, as they are one of the leading causes of overdose for children and adults. An iron overdose can be deadly, so make sure you keep the iron out of reach of children. See the Iron Deficiency Overview chart for specific supplement information. Doses of 20 to 40 mg

of elemental iron per day have been found to improve iron levels in people with anemia, but be sure to speak to your physician or pharmacist about a dose appropriate for you.

IRON DEFICIENCY OVERVIEW

Common Deficiency Causes	Acid-suppressing medications Heavy menses Blood loss Gut infections Food sensitivities Heavy metals
Optimal Levels	90–110 ng/mL
Supplement	Ferrochel from Designs for Health or OptiFerin-C from Pure Encapsulations
How to Take It	Please talk to your doctor or pharmacist for dosing guidelines. Take with vitamin C and betaine with pepsin.
Caution	Can be toxic and carries risk of overdose. Keep out of reach from children and pets.

Vitamin B₁₂

Low levels of B₁₂ may lead to anemia, underdevelopment of villi (which house our digestive enzymes), impaired digestion, and inflammation. Vitamin B₁₂ from our diet is found in animal proteins.

Lab tests for measuring B₁₂ levels are available but do not always tell the whole story. Established “low” ranges are too low, and researchers have found that “normal-low” B₁₂ levels have been associated with neurological symptoms such as difficulty balancing, memory lapses, brain fog, tingling of extremities, depression, mania, fatigue, and psychosis. Low levels of hydrochloric acid commonly found in

those with Hashimoto's put people at risk for B₁₂ deficiency. Intake of breads and cereals fortified with folic acid may mask this deficiency on standard lab tests.

Vitamin B₁₂ is naturally found in animal products including fish, meat, poultry, eggs, milk, and other dairy products. However, this vitamin is generally not present in plant foods, which puts vegetarians and especially vegans at a greater risk for deficiency. Using a vitamin B₁₂ supplement is essential for vegans and may be helpful for those with low stomach acid until the condition is corrected, as the B₁₂ is in a free form and doesn't require separation.

Options for B₁₂ replacement include tablets, sublinguals (under-the-tongue tablets), and injections. I prefer the sublingual route (as methylcobalamin) because it's better absorbed than the oral route and is more convenient than injections.

B₁₂ DEFICIENCY OVERVIEW

Common Deficiency Causes	Vegan diet Vegetarian diet <i>H. pylori</i> infection Low stomach acid SIBO Acid blockers Gut disorders Weight-loss surgery
Optimal Levels	700-900 pg/mL
Supplement	B ₁₂ as methylcobalamin (Pure Encapsulations brand liquid or Designs for Health chewable)
How to Take It	5,000 mcg daily for 10 days, then 5,000 mcg weekly for 4 weeks, then 5,000 mcg monthly for maintenance
Caution	May cause irritability.

HASHIMOTO'S PROTOCOL

A 90-Day Plan for
Reversing Thyroid Symptoms
and Getting Your Life Back



IZABELLA
WENTZ

PharmD, FASCP



New York Times Bestselling Author of *Hashimoto's Thyroiditis*