

Ferritin - The Body's Iron Store

by Melissa Cohen

Nutritional Therapist BSc (Hons), Mban, mIFM, NLP Practitioner



Why is Ferritin so important?

Ferritin is the most sensitive marker for iron deficiency as it is our storage of iron.

Rather than just check your thyroid, iron should also be checked alongside

thyroid function for optimal wellbeing. Underlying factors such as low iron absorption, low iron storage, intestinal bleeding, and auto immune disease may be a trigger for iron anaemia. Iron deficiency is quite common.

There is a lot of confusion about which diet is best and lots of contradictory statements. There is not one diet that fits every health outcome, especially when it comes to a vegan diet as this has a lot of research to state how protective it is against certain diseases along with paleo, plant based, and low FODMAP, the list is endless. Whilst all these diets do have their values and ethics, it is important to see yourself as unique, because you are!

There is no-one with the same DNA, inner being, upbringing and environment as you. Therefore, not one diet fits all, or not one prognosis fits all. Whether you have been diagnosed with hypothyroidism, Hashimoto's, Graves' disease, or iron deficiency anaemia, please see yourself as unique.

This article explains some of the questions you can ask yourself in regard to iron and ferritin levels.

What is Ferritin?

Ferritin is a protein which stores iron in the liver, spleen, bone marrow and muscle. Ferritin is stored in the cells until it is time to make more red blood cells. Then releases iron and connects it to an iron transporter "transferrin" to carry iron around the body in the form of haemoglobin. Symptoms of low iron include shortness of breath, fatigue, palpitations, pale tongue, bluish lips, cracking corners of mouth, eye floaters, insomnia, and headaches.

Of course, these symptoms could be related to so much more, though it is a good initial check list.

Food Sources of Iron

All protein rich foods contain iron, think of meats, fish, eggs, pulses, and beans.

Food Source	Iron Content
Mussels 100g	28mg
Liver 100g	23mg
Pumpkin seeds 50g	8mg
Lentils 100g	3.7mg
Beef 100g	5.5mg
Tofu 100g	2.7mg

What does iron do?

Iron's key role is to make healthy red blood cells and to transport oxygen around the body.

Iron is essential for the immune system to keep our vital organs functioning 24/7.

Which foods inhibit iron absorption?

Iron is found in both plant-based and animal foods,

which are known as non-haem and haem foods, respectively. Vegan iron is absorbed at approximately 20% versus 30% for animal eaters. Therefore, the absorption rate for iron is low and even lower through vegan sources.

Vitamin C helps to increase iron absorption and reverse inhibiting effects from tannin rich foods such as black tea and calcium found in dairy products. Vitamin C rich foods

include citrus fruits, peppers, kiwi, and dark green vegetables. Eating a lentil dahl or chickpea curry with a squeeze of lemon juice followed by 2 handfuls of berries will help the absorption of iron.

There are genetic mutations that can cause iron deficiency anaemia such as sickle cell anaemia and thalassemia, all of which can be evaluated via your GP.

Like most foods it is all about balance, and I like to see foods as multi-therapeutic components to diet.



In other words, like most things in life, there is good and not so good in every type of foods i.e. black tea is full of antioxidants, but also contains tannins. Phytates also inhibit iron absorption and are found in seeds, nuts, beans, legumes, and grains. I know, you are thinking, “but these are high in protein and nutrients!!” Approximately 70% of phytates are digested in the stomach and small intestines. Phytates can bind to minerals including iron, zinc, and manganese before we have had a chance to digest our food. However, the good news is that phytic acids also bind to free radicals, making this an excellent antioxidant.

Soaking, fermenting, and heating these vegetarian proteins may reduce levels of phytic acids along with sprouting.

Lifestyle Factors

Iron anaemia may be triggered by:

- Women who are menstruating for a longer duration.
- Ageing, due to less hydrochloric acid and a sluggish digestive function decreasing absorption of iron.
- Lowered appetite.
- Proton pump inhibitors and oral contraceptives.
- Coeliac disease and Crohn's disease.
- Extreme exercise/competitive sport.

The range of ferritin levels is a wide range e.g. can be from 15 ug/l to 150 ug/l. Therefore, you might be at the low end of normal and require additional Vitamin C and iron supplementation. Optimal levels of ferritin are 60 ug/l and below 30 ug/l is low side of normal. My advice is always ask for a copy of your test results from your doctor, as you may be classed as “normal” but at the low end of “normal.” In addition, heavy metals and environmental toxins, can lower ferritin regulation, and this can also be investigated with a functional nutritional therapist.

Nutrient Deficiencies

Vitamin D deficiency is linked to iron deficiency anaemia. Vitamin D regulates inflammation and inflammation can dramatically reduce iron absorption. A daily prescription of 30 minutes of outdoor

walking in the morning along with a starting dosage of vitamin D3 of 3,000 IU is good for optimal absorption.

Zinc, vitamin B6 and folate are essential for optimal absorption of iron and these are found in tofu, chicken, avocados, tuna, asparagus, cauliflower and kale.

What is the correlation between iron and thyroid health?

There is a 2-way correlation between iron deficiency and thyroid health. Hypothyroidism may lead to low iron levels and low iron levels may trigger hypothyroidism.

Conversely hyperthyroidism can trigger elevated iron levels due to excess stimulation of thyroid stimulating hormone (TSH) and the production and release of ferritin storage.

If you are taking an iron supplement, take this 4 hours away from thyroid medication, so as not to interfere with absorption.

Sources of iron supplementation

- Iron infusions: these are mainly provided by private doctors and are highly effective. These infusions can be mixed with B vitamins and vitamin C for maximum strength.
- Iron bisglycinate for maximum absorption available as a supplement.
- Spirulina.
- Nettle tea.
- Sarsaparilla (root beer).
- Burdock root.



You can find some Burdock Root supplements on Revital Ltd and obtain 15% discount using the code: **20030400**

If you would like a consultation to discuss this further, please contact us at melissa@melissa-cohen.com Consultations available over Zoom, Northwest London, and Central London.

In the meantime, follow us on Instagram @melissacohennutrition or drop us an email at melissa@melissa-cohen.com