

Your Ferritin might be too high if...

What Is Ferritin?

Ferritin is a protein in the body that stores iron and releases it. A simple blood test can determine this value for you. When Ferritin builds up, iron overload is the result. Over time, these excesses build up in major organs and if it is not removed, these organs can become diseased. This can be a genetic trait, in which it is called Hemochromatosis. However, this is the case only about 10% of patients with high Ferritin. Elevated Ferritin is a lot more common for other reasons than you think and is to not be overlooked. Untreated hemochromatosis can be fatal. More often though, the iron overload presents in patients with obesity, chronic inflammation, daily alcohol consumption, heart disease, liver disease, renal failure, joint pain, metabolic syndrome or diabetes, or even cancer.

Dr. Paul Adams of division of Gastroenterology University of Western Ontario, Canada says "it is important to remember that elevated ferritin does not equal iron overload and there are many patients with elevated ferritin caused by inflammation¹."

You've reached post menopause

Women may not experience symptoms of iron overload until after menopause. Data shows that inverse changes occur between iron and estrogen levels in during menopausal transition². As estrogen levels decrease, iron levels will increase because it is no longer lost through menstruation and iron will then accumulate in the body. Levels have been shown to double and even triple during this period³. These increased Iron levels have been shown to increase risk of heart disease and breast cancer in postmenopausal women as well⁴. Women, at the start of menopause, may experience fatigue, joint pain, and loss of libido. Their doctor may underestimate these symptoms and just blame it on the menopause. These could actually be signs that you have Hemochromatosis or iron overload.

You have elevated Liver enzymes

Because Ferritin is stored in liver cells, when there is liver damage for any cause Ferritin can be an indirect measurement of liver disease. Studies have shown a correlation between elevated serum iron and non-alcoholic fatty liver disease. In fact, iron overload is present in about one-third of patients with non-alcoholic fatty liver disease⁵. Studies also show that Ferritin can be a alternate marker for the presence of Hepatitis B and C⁶. Iron depletion therapy, such as with a phlebotomy discussed further below, may improve the metabolic complications and elevated liver enzymes in patients with fatty liver disease⁶.

You have Type 2 Diabetes

There are numerous studies that associate Iron overload and Type 2 diabetes. This doesn't mean that the high Ferritin value or Hemochromatosis is causing one to develop diabetes, but does indicate that it is a side effect and can accelerate inflammation and/or affect one's ability to control the diabetes naturally.

The iron can deposit in the pancreas and can cause a decrease in insulin production. Data has shown that high ferritin approximately doubles the risk for metabolic syndrome after accounting for age, race, alcohol, and smoking⁷.

TIP: Insulin sensitivity can improve when Iron levels are lowered. The findings in a study published by the American Diabetes Association suggests that bloodletting (therapeutic phlebotomy) might contribute as an adjuvant treatment in patients who have type 2 diabetes with increased ferritin concentrations⁷. The effects of bloodletting in this study indicated that the changes in insulin sensitivity were *maintained* even 1 year after the procedure⁸.

You have abnormal heart rhythm

High iron has been suggested as a risk factor for heart attacks as well as patients with atrial fibrillation. One study published in the American Journal of Epidemiology concluded that male participants who are considered regular blood donors have an 88% lower risk of a heart attack⁹. For women under 55, those that have had irregular life-long menstrual cycles had a higher risk for a heart attack¹⁰. Both studies indicate that regular blood loss, either from phlebotomy or menses, protects against heart attacks.

Treatment options for high iron levels

Make sure when considering treatment options for elevated iron levels, you understand the reasoning behind the cause. You may be getting too much iron from taking it with supplements. Be sure you read the labels of multiple vitamins you may be taking and any powder green drinks or protein powders as well. And it could be as simple as reducing iron in the diet and/or go off the supplement. There is a sweet spot for iron levels in the blood. You can have too much and you can have too little. When supplementing with iron, you may only have to take it for a short period of time to raise your levels to a desired state. Be sure to check with a professional before starting on a supplementation protocol.

Blood letting or frequent phlebotomies are an easy fix to get rid of the excess stored iron in the blood. There are some contraindications where eligibility may be declined such as:

- Active cold or flu
- Chemotherapy and some cancers
- Low Hemoglobin levels (checked at site)
- Underweight
- Pregnancy
- AIDS
- Hepatitis
- Deferment periods and other guidelines can be found at Red Cross.

Treatment options for high iron levels

Not only is it important to test your Ferritin levels, but there are many other markers in the blood that can be tested to determine why or what is causing these levels to be too high or low. A comprehensive blood test and toxic element testing can be done by your experienced nutritionist to help guide you down the right path towards better health. Symptoms of iron overload may mask other diseases and diagnoses and not all patients should be treated the exact same way. If you are not getting better and have concerns about where your health is going, don't wait. Find out today what your individual needs are!

References

1. Dr. Adams, Paul. Management of Elevated Serum Ferritin Levels. *Gastroenterol Hepatol* (N Y). 2008 May; 4(5): 333–334.
2. Zacharski LR, Ornstein DL, Woloshin S, Schwartz LM. Association of age, sex, and race with body iron stores in adults: analysis of NHANES III data. *Am Heart J*. 2000;140:98–104. [PubMed]
3. Milman N, Kirchhoff M. Iron stores in 1359, 30- to 60-year-old Danish women: evaluation by serum ferritin and hemoglobin. *Ann Hematol*. 1992;64:22–27. [PubMed]
4. Huang X. Does iron have a role in breast cancer? *Lancet Oncol*. 2008;9:803–807
5. Kowdley, Kris V. “Iron Overload in Patients With Chronic Liver Disease.” *Gastroenterology & Hepatology*, Millennium Medical Publishing, Nov. 2016, www.ncbi.nlm.nih.gov/pmc/articles/PMC5193089/.
6. Valenti L, Moscatiello S, Vanni E, Fracanzani AL, Bugianesi E, Fargion S, et al. Venesection for non-alcoholic fatty liver disease unresponsive to lifestyle counselling--a propensity score-adjusted observational study. *QJM*. 2011;104:141–149.
7. Jehn M, Clark JM, Guallar E. Serum ferritin and risk of the metabolic syndrome in U.S. adults. *Diabetes Care*. 2004;27:2422–2428.
8. Fernández-Real, José Manuel, et al. “Blood Letting in High-Ferritin Type 2 Diabetes.” *Diabetes*, American Diabetes Association, 1 Apr. 2002, diabetes.diabetesjournals.org/content/51/4/1000.
9. Donation of blood is associated with reduced risk of myocardial infarction. The Kuopio Ischaemic Heart Disease Risk Factor Study. *Am J Epidemiol*. 1998 Sep 1;148(5):445-51
10. La, C, et al. “Menstrual and Reproductive Factors and the Risk of Myocardial Infarction in Women under Fifty-Five Years of Age.” *American Journal of Obstetrics and Gynecology*, U.S. National Library of Medicine, Nov. 1987, www.ncbi.nlm.nih.gov/pubmed/3688065.