



High Iron Leads to Low Testosterone

High levels of iron in the body can, as we know, lead to some serious health problems, as I documented in my book, [Dumping Iron](#). Among these problems, high iron leads to low testosterone. If you have low testosterone, it's possible that the simple fix of lowering an abnormally high iron level could solve your problem.

Hemochromatosis and low testosterone

Hemochromatosis is the genetic condition which leads to high body iron levels. Ferritin, the most reliable measure of body iron, may be very elevated in hemochromatosis, up to thousands of ng/ml, compared to the normal range of 20-500 for men and 20-200 for women, [according to the Mayo Clinic](#).

Men who have hemochromatosis often have hypogonadism, a condition of low testosterone, low sex drive, and infertility.

Iron depletion, via phlebotomy (blood removal), [can cure hypogonadism, leading to normal testosterone, sex drive, and fertility.](#)

But if you don't have hemochromatosis, but just slightly high iron levels, could that lead to low testosterone? Maybe you wouldn't have full-blown hypogonadism, but could your testosterone be lower than you'd like, resulting in low T symptoms, like low energy, low sex drive, and erectile dysfunction?

It appears that the answer is yes, high iron could be causing low testosterone.

I'm hearing anecdotes from my network that lowering iron in men has resulted in higher testosterone levels.

Normal iron isn't normal

As mentioned above, the Mayo Clinic defines normal iron for men as 20-500 ng/ml. However, the upper limit of that range is far too high for good health.

[For optimal health, men should have a ferritin no higher than 100.](#)

In men with iron levels within the normal range, that is, less than 500, [iron is inversely correlated with testosterone.](#)

The men in this study had an average iron (ferritin) level of 318 ng/ml, high by our standards but well within the Mayo Clinic's normal range. Their average testosterone was 627 ng/dl, quite respectable, although they were in young middle age, average age 37. [Normal range for testosterone is 264-916.](#)

The higher the men's ferritin, the lower their testosterone, even though none of the men had pathologically high levels, as mainstream medicine defines them.

While the inverse correlation of iron and testosterone didn't rise to the levels seen in pathologically high iron – hemochromatosis and hypogonadism – it seems entirely possible that getting iron to a healthy normal, 100 ng/ml or below, could be good for a decent increase in testosterone, say 100 points or more.

If so, then the anecdotes I'm hearing about men raising their T levels by lowering their iron are not only true, but show causality.

Testosterone lowers ferritin

[When men supplemented testosterone, their ferritin declined.](#)

The reason: testosterone caused an increase in hematocrit, which is the percentage of the blood that is composed of red blood cells. Low testosterone can lead to anemia, and increasing testosterone can treat that anemia. (There are many causes of anemia, so testosterone doesn't necessarily treat every type of anemia.)

When you make more red blood cells, iron is required. By drawing from body iron stores, increased red blood cell production therefore decreases ferritin, or body iron. Red blood cells represent the single biggest repository of body iron.

The interplay of ferritin and testosterone is complex, and it appears they both affect each other.

High ferritin levels also lead to oxidative stress and chronic inflammation, both of which are death to testosterone.

Since testosterone increases the absorption of iron via the hormone hepcidin, [iron in turn negatively regulates testosterone.](#) Boom.

“Crosstalk between testosterone and iron has significant implications in testosterone deficiency and therapy. Additionally, the regulation of testosterone by iron may indicate a significant role for iron in the development of the hypogonadotropic hypogonadism of aging and chronic disease.”

Older men are more likely to have low testosterone, and they are also more likely to have increased ferritin.

Paradoxically, high ferritin levels are associated with lower hemoglobin and hematocrit, as [Dr. Zacharski and colleagues found in both normal people and diabetics.](#)

Some of this relation between higher ferritin and lower hemoglobin could be mediated by testosterone. That is, higher ferritin -> lower testosterone -> lower hemoglobin and hematocrit.

Therefore getting ferritin into the safe range of 100 or below could not only increase testosterone, but improve exercise capacity by increasing hematocrit.

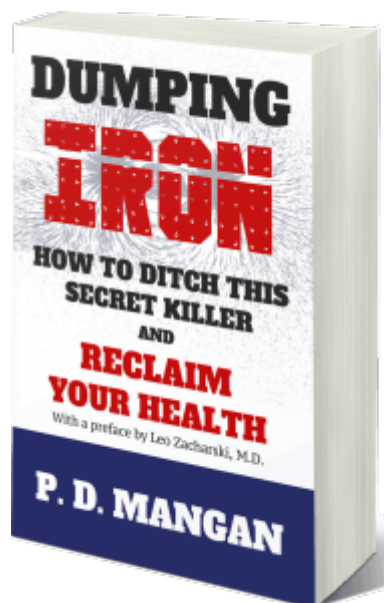
Conclusion

Very high iron levels as seen in hemochromatosis can lead to low testosterone, low sex drive, and infertility.

But iron that is only slightly high and within the conventional normal range may also decrease testosterone.

If you have lower testosterone than you'd like, your iron (ferritin) level may be one place to look for an answer.

PS: For how excess body iron harms health in many other ways, see my book, [Dumping Iron.](#)



PPS: [Check out my Supplements Buying Guide for Men.](#)