

The Missing Puzzle Piece Is Bioavailable Copper - Not More Iron



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Copper and its master protein, ceruloplasmin, are instrumental for mitochondrial function. Ceruloplasmin is what drives copper into the mitochondria, and each mitochondrion needs about 50,000 atoms of copper to do its work.

In a study it appears, when rats were denied copper, six genes (and subsequent proteins) are down-regulated or turned off, while one gene in particular, transferrin, is upregulated.

If you're copper deficient, six genes will not function properly, and beyond these, there are at least 300 other genes that are also copper-dependent.

Your mitochondria also require copper for optimal function, and mitochondrial dysfunction is a driver of virtually all chronic disease and ill health.

The Type of Fat You Eat Matters

Unsaturated fats like linoleic acid are predisposed to oxidation. When you have oxidation in fatty acids like cardiolipin, the structure of your mitochondria is destroyed and decimates the ability of the mitochondria to function well.

With cardiolipin damaged, the complexes are not able to generate as much mitochondrial energy. It's iron that's causing the oxidation.

Red blood cells float in the watery serum portion of the blood which gets measured when you do a blood test. So, when your doctor is measuring serum ferritin, you're not actually getting a true measure of your iron stores.

According to Morley Robbins, MBA, CHC, low ferritin is typically interpreted as low iron, but that is a major clinical mistake. Look at all of the containers of iron — hemoglobin, serum iron and ferritin, in order to make the proper diagnosis.

You also need to look at non-iron markers such as zinc, copper and ceruloplasmin, as well as vitamin A and vitamin D because they influence the bioavailability of copper. This holistic evaluation is the focus of Robbins' "Root Cause" protocol.

Problem if You Have Low Ferritin?

According to Robbins, when someone is told they have low iron because their ferritin is low, 99.9% of the time the real problem is iron recycling dysfunction related to copper deficiency.

This contradicts almost every medical "expert" in the world, so it's a major claim, but understanding it can have a significant impact on your health.

Robbins says, "We have the myth of iron deficiency. We have the myth that iron regulates itself. It does not. It is entirely copper dependent. When you get into the real deep research, you're going to find that copper is the General, iron is the foot soldier. Now try to picture the Battle of the Bulge without Patton. Very different story there."

High Ferritin Is Often a Sign of Liver Dysfunction

On the flip-side we have high ferritin. This is routinely interpreted as having normal (or high) iron stores, yet that's not accurate either.

High ferritin is often a sign of liver dysfunction. The ferritin is spilling out of the liver into the bloodstream because the recycling center of the hepatocyte is not working.

The liver's recycling center is called the lysosome. This is where ferritin is turned over to make iron available for use. When that lysosome isn't working right, iron will accumulate in the liver, causing ferritin to be secreted into the cell.

The key to proper iron recycling in the liver is, again, copper. The loading of iron in ferritin that takes place inside the cell, and the recycling of ferritin inside the cell, is entirely copper-dependent, according to Robbins.

Robbins says, “I think what's important, the big macro for everyone in this conversation, is to see the profound interaction that copper and iron have in our metabolism, and that there is no iron metabolism, there's only copper-iron metabolism, and you can't make conclusions on iron status, by measuring just serum ferritin status.”

So, unless you're losing a lot of blood, your iron will (most likely) be high. The reason for this is because your body has no way of eliminating iron, other than blood loss.

High iron, due to its corrosive nature, can cause tremendous damage inside your body.

“What's happening is there's total silence about iron recycling,” Robbins says. “Because we live in this copper deficient environment, the recycling system is not as efficient. The serum iron is going to show low under those conditions.

The doctor is going to react with, ‘You need more iron,’ when in fact what you need is more copper. The recycling system is dependent upon one iron egress doorway.”

We've been trained to think we're anemic and we've been trained to think we need to replace the iron, when in fact the missing piece of the puzzle is bioavailable copper — which is copper in the presence of retinol — so that the enzymes get properly loaded and can properly function.

Robbins recommends taking up to 3 to 4 mg of copper bisglycinate per day, or eating copper-rich foods, such as bee pollen, grass fed beef liver and acerola cherry.

Retinol is found in beef liver and beef organs, so if you eat that, you may not need any kind of supplement. Absent that, cod liver oil is a recognized source of real retinol.

The stress hormone cortisol has a negative effect on bioavailable copper (which can result in stubbornly low ferritin levels), and addressing emotional knots stuck in the body using various techniques or therapies can be instrumental in healing cases where stress and emotional turmoil play a part.

Robbins also has reviews on how dysfunctional iron metabolism and copper insufficiency affects conditions such as schizophrenia, obesity, ulcerative colitis and Crohn's disease.

This shows how important a holistic view of the body, mind and soul play such an important role in our health and overall well being.

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