Iron Deficiency Basics

And again, iron deficiency can present in a plethora of ways. It can be linked to every single horrible chronic disease, acute disorders, anything you want to name it, lifestyle dysfunctions.

Those are a whole bunch of things that can be fixed by actually fixing somebody's iron. So the way I like to fix it, there's the basics. There is obviously make sure you're eating more red meat, supplemental iron.

You can even do iron infusions, which are kind of a very unique thing for people with digestive issues or just kind of need something immediately done for that because their iron levels are so low.

But I kind of look at, you know, outside the box kind of ways and methylene blue is kind of my go-to for any time I find anything iron-based. This is Dr.

Talks. All right, welcome to the Lifestyle Medicine Podcast. I'm Dr. Ivan Rosilko, and we're brought to you today by Access Medical Labs. If your doctor's not checking your diagnostics, he's not a doctor.

And today I figured, let's, you know, hell, why not? Let's just go with a solo podcast, because I've gotten so many questions about iron, because I do nothing but preach at now all the other podcasts, which I'm sure you've probably already seen.

So it's a situation where why is iron so important?

Why Iron Matters for Energy and Oxygen

Well, iron is basically how we get Oxygen from the environment into our beloved tissues, our system, our brain, our gonads, you name it, everywhere where it needs to be.

So I think it's probably one of the most underrated aspects, especially in the anti-aging wellness, regenerative world. You don't really hear too much about it.

You know, check your basic things and then you just go with it. Never worry about peptides and hormones and all other. But I think you know the most important part of what precision medicine is and wellness medicine in general is the basics.

So we're gonna get to the basics today. Iron deficiency is something that I think a lot of people suffer from that they don't even know it. And again this is because there's a lot of things that go into the biochem that a lot of physicians kind of Forgot, I'm guessing along their way.

I sure did until I really got in this industry and figured out the basics of the most important. So if you're experiencing anything like fatigue, weakness, erectile issues, sexual issues, fitness issues, anything that kind of makes your body feel bleh.

Alright, you know, you always want to check your iron because if you're not getting enough oxygen into your system, you aren't living at your full potential.

So one of the key aspects is checking your iron levels through your diagnostic testing. And there's a lot of ways that this can be done. And I think all of them are just as important as the one before it.

So with it, I'm going to kind of hit the high points today. We're also going to kind of go over one of my favorite treatments for it and when to initiate it.

Key Lab Markers for Iron Status

So I hope you're ready for some basics, some biochem, a couple laughs and I think we should be well on our way to understanding iron and its importance in the industry as well as your health.

So first and foremost, when it comes to diagnostic testing, we can sit there and understand things like hemoglobin and hematocrit. Hemoglobin is the protein in your red blood cells that helps actually transport oxygen throughout the entire system.

Super important. Hematocrit is the amount of red blood cells per percentage of the actual blood in your system. So they're both very important and usually with any type of iron-based anemia, it's going to be on the lower side.

So therefore, it's going to classify you off the gate as ironanemic. So that's one situation where it's obvious, it's straightforward, take a look at that.

You do have other indices when it comes to the CBC, which is where you're going to find all these things. CBC stands for your complete blood cell count.

So it's super, super important to kind of understand the basics, like I said. Red blood cell distribution width or your RDW. This is important because this is the size of your red blood cell, okay?

And again, sometimes bigger or smaller is not better, that is life. So usually what happens is in any type of iron-based anemia, the red blood cells tend to be or tend to err on the more small side.

So that's something you can always kind of take a look at when it comes to anything iron-based. Then you have the actual color of the red blood cell. Your mean corpuscle hemoglobin, I mean, so it's a mouthful, your mean corpuscle hemoglobin concentration, MCH and MCHC.

These are basically the measure of the color of your red blood cells and usually as you guessed it, in any type of iron-based anemia they're gonna be a little bit more pale.

So it's a situation where those markers right there kind of give you a very good indication that you should probably get your iron fixed because it's the most important metal in your body.

But then comes the actual iron panel itself. And the first and foremost is ferritin. Ferritin is the protein that actually stores our iron. It's probably the most important marker when you're checking iron.

So obviously low levels of that obviously indicate something that's going to be kind of off with your iron usually on the lower side. Then you have total iron, which is the amount of iron in the blood actually circulating at that exact moment.

Then you have some things that people don't really understand. First is your TIBC, and the higher the number, the worse off you are. So anytime you find a TIBC that's out of range, that's going to be something basically that's going to indicate an iron-based anemia.

Treating Iron Deficiency

TIBC is basically an indirect measure of your transferrin, which is transporting the oxygen. So if there's more spaces there, aka there's more buses out on the tarmac, that means that your body is trying to find more oxygen to actually grip to, so therefore you need to actually improve it.

So higher TIBC is going to indicate a specific form of iron anemia. Then you have your percent saturation, which is the amount of oxygen bound, or the amount of iron bound, I should say.

Again, iron and oxygen go hand in hand. So again, as that number increases, it's usually very, very good to a

certain point. So you always have to remember as your TIBC gets higher or your percent saturation gets lower, this can classify you as being iron deficient.

And again, iron deficiency can present in a plethora of ways. It can be linked to every single Horrible chronic disease, acute disorders, anything you want to name it, lifestyle dysfunctions.

Those are a whole bunch of things that can be fixed by actually fixing somebody's iron. So the way I like to fix it, there's the basics. There is obviously make sure you're eating more red meat, supplemental iron.

You can even do iron infusions, which are kind of a very unique thing for people with digestive issues or just kind of need something immediately done for that because their iron levels are so low.

But I kind of look at, you know, outside the box, hide away, is that methylene blue is kind of my go-to for any time I find anything iron-based. Methylene blue was originally used for something called Methymyglobinuria.

I know it's a mouthful. But basically what that is, is your body's inability to actually correctly charge the iron in your system. So this is where the BioKen comes in.

Iron in your system needs to be charged at a plus two. That's considered its ferrous state. Just remember the O and ferrous is oxygen friendly. Okay, the ferric state is no bueno.

Methylene Blue and Iron Chemistry

So what happens is, and people don't have the actual genetic issue going on, the methemoglobin area, you have specific aspects or specific conditions to where your blood becomes more acidic.

And acidity favors the ferric version much, much more than it does the ferrous. So acidity is not good. Also, no bueno. So what happens is you have a situation where you see a lot of people who are pre-diabetic, a lot of people who have stress in their lives, which I think everybody does.

A lot of people who are following improper food diets, improper exercise diets, and people just not taking care of themselves or eating improper processed foods, which is a big, big, big part of this.

So what happens is your blood starts to kind of change into this acidic environment or terraform into a way to where now you might have iron and everything is going well but you aren't actually you know connecting to oxygen because as that actual hemoglobin molecule passes the the abioli in the in the lungs it's not able to actually connect to the oxygen because that you know the oxygen is too needs to match with the actual hemoglobin is too and if that doesn't happen it's just basically a ricochet.

So now that bus, I guess you will, will just travel throughout the entire system with no passengers on it. So figuring out that we can now, and the reason I like Methylene Blue so much is because of the redox potential of how this actual molecule works.

So Methylene Blue goes through and basically purifies the oxygen charge throughout the system. So Methylene Blue has been shown to actually take all the ferric ferric iron in the system and actually transition them into ferrous so therefore increasing not only your oxygen potential but the oxygen workload to travel throughout the entire system more oxygen in the brain more oxygen in the heart more oxygen the muscles you name it that just means you're having a better better day and everything's going much much more efficiently in your actual body i always try to tell people you could be walking around right now at 60 is your best battery charge once you get that oxygen charge the correct way or the ironing charge the check way and you get the more oxygen in your system you're going to be walking around at least 80 90%. So, you know, that's why methylene blue can be such a unique, I guess you would say modality or treatment for people who have any type of iron based issue.

It's not FDA approved for it. It's kind of a three step process into it. But if you prompt, of course, everybody looking at this is going to chat GBT and perplexity and Gemini and all those other things.

When you start asking basic questions, the common sense link is, you know, methylene blue can help with iron based anemia tremendously. So it's a situation where I'd be very careful with methylene blue.

There's a lot of issues that can surround it, especially with cross reactions, things like a G6PD deficiency. You have things like if they're taking any type of antidepressants or things that increase serotonin in the brain, that can be a very dangerous situation.

Safety Considerations and Clinical Use

People with uncontrolled blood pressure, people with kidney issues, those are kind of the big things that you really want to pay attention with what's going on with methylene blue.

But for the most part, you know, I use it in patients who have Parkinson's, patients who have depression, patients who are looking to you know, just supercharge their mitochondria, one of the fun things about methylene blue.

It actually works to actually increase the propagation and the building of ATP in the system. And everybody knows about NAD and all that kind of fun stuff.

Well, NAD doesn't accept produce ATP. And to do that, it needs an oxygen molecule to actually accept some of the electrons. Therefore, it makes that system much more effective.

uh so in a way Methylene Blue I use in my programs as well for mitochondrial stimulation uh it works phenomenal for it's a great great product but you got to make sure as efficient as a physician or a health care uh professional or as a patient do your research if you if you want to get on something like that maybe you'll catch something your doctor didn't We've had a lot of people come in who come to see me and I see that they're all those things that are feeling weird.

Well, they're a methylene blue and some type of antidepressant, which is why they're feeling that certain way. So just be careful. I think as a patient, you really need to be informed.

And again, I think that's one of the beauties of this industry because patients are excited about their health. So it's just a situation where, you know, pay attention to what you do, pay attention to who you are and pay attention to who you see.

And as a physician, I think iron-based anemia is something you should definitely get into your practice. Again, my name is Dr. Adam Rosilko, Lifestyle Medicine Podcast brought to you by Access Medical.

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