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Dr. Dave: [00:00:00] Welcome back to That Naturopathic Podcast. We got another great show for you today with Iron Man, Dr. Justin Gallant, Naturopathic Doctor. He's got a clinical practice in Hamilton and we're super pumped to have him on because we're going to talk about iron today. And when you talk about iron you talk about energy. I'm Dr. David Miller, ND and I'm here with..

Dr. Kara: [00:00:24] Dr. Kara. Yeah we're super excited to talk to you today Justin. Around our circle of colleagues if we ever have cases of, uh just having challenging cases or questions about anything to do with Iron, then Dr. Gallant is the one we got to. So, Welcome. How are you doing today?

Dr. Justin: [00:00:42] Thank you. I'm doing well and I it's a pleasure for me to play that role for helping everybody with their iron issues.

Dr. Kara: [00:00:50] You embrace the Iron Man title we've given you.

Dr. Justin: [00:00:52] I do. I love it.

Dr. Dave: [00:00:54] Have you ever been called Iron Man?

Dr. Justin: [00:00:55] I have. I have. Like students and stuff like that. I have a lot of preceptors that come in.

Dr. Kara: [00:01:01] We're going to get you a t shirt.

[00:01:03] That would be great.

Dr. Dave: [00:01:04] So Iron Man, do want to give us a little bit of intro about yourself. You can just make it about how you became what you are. Just give people a little bit of a feel for why we're here talking to you today.

Dr. Justin: [00:01:15] All right I'll make this as short as possible. So when I was in high school my grandmother lived with us and she was getting sicker and sicker as time went on. Once after she hit menopause so she ended up having jaundice, nausea, a lot of liver issues and she went to her family doctor and her family doctor kept accusing her of being an alcoholic even though she didn't drink any alcohol at all. He literally told us that she must be taking shots out of the closet behind our backs, really just very close minded, ya. And her generation you wouldn't try to get a second opinion you just kind of go with it. Right.

Dr. Kara: [00:01:56] Right.

Dr. Justin: [00:01:57] And so two weeks before she passed away from cirrhosis she got a liver specialist who did the genetic testing for hemochromatosis. And she tested positive for that. So in hemochromatosis is a genetic condition where you store too much iron, the opposite of today's topic. You store too much iron and then it basically gets into your organs and oxidizes as can cause diabetes, cirrhosis, heart issues lots of different stuff. And so while all that was going on I felt like there needed to be some sort of second, educated second opinion that you could go to where the personal actually listen to you and get what diagnostics need to be done and not having to depend on some like gatekeeper of Health who isn't taking anyone seriously. And so a couple of years down the road I started a Brock University my kinesiology degree thinking I wanted to be a gym teacher and then as I got into third year my mom started to go down the exact same route as my grandmother.

Dr. Justin: [00:03:03] So she had fatty liver disease pre diabetic joint pain. So she was heading in to menopause and her symptoms were starting up and so she went to a different family doctor and he just ignored everything and said blah blah blah. Just take metformin and be on your merry way. And fortunately my mom was actually cleaning a multidisciplinary clinic where there was a Naturopath. So she told that Naturopath what was going on, went to see her and in the first visit, the Naturopath took her family history and then did the proper testing for her iron, sent a request to get genetic testing done, and my mom tested positive for hemochromatosis and got it treated which was just blood letting or donating blood. And she's already outlived my grandma by three

years now and it helped everything like brought her blood sugar back down brought the cholesterol back down. So once all that stuff happened I was like holy crap what the heck is a naturopathic doctor. I looked it up and doesn't speak too highly of us on Wikipedia, but I was like you know what I to go see this Naturopath because I was stressed out from university and just wanted to kind of see what she was all about. And she really helped me out with nutrition and proper supplements and then I decided to take the plunge to CCONM and become a Naturopathic Doctor. And then in first year I realized that I have hemochromatosis as well.

Dr. Kara: [00:04:37] So you're literally Iron Man.

Dr. Justin: [00:04:39] I am. I am full of iron. And I had been going to the head of Family Medicine at North York General and she basically told me I was stressed and depressed and that's what is causing my symptoms because I couldn't get out of bed and it was like first year we had anatomy I think every single morning I couldn't make it and I believed her to a certain extent until we had a family dinner and my uncle who also has hemochromatosis and was saying that he can't run marathons if his iron is really high. And he said he had really bad joint pain and couldn't get out of bed. And so is like wait a minute maybe I should get my iron tested and I got an intern or whatever we were called back then, an intern I think? At the RSNC attached to CCONM and she tested my ferritin and and it was up I think like around five hundred. So I went to my family doctor and this is where I kind of learned a lot about table side manner.

Dr. Justin: [00:05:40] I brought the results to her and I said I think I may have hemochromatosis and then she said well I'll send you to haematologist to get the genetic testing done but there are other things that we have to rule out as well. Given your symptoms is that ferritin is high. And I said "Well what's that?". And she said "well cancer". And so that for that three months I was waiting for a haematologist that basically you know googled the crap out of it thinking that I had cancer. And so I learned not to you know throw strong diagnoses out there without having any evidence pf you know doing that. And then yeah I tested positive and I went for my 13 phlebotomy in a row to get my iron levels down and I've been feeling amazing since then. So it was like the what do you call it the tin man getting his oil or whatever.

Dr. Kara: [00:06:33] There's a there's a paradox there interestingly enough because one of your main symptoms was fatigue and that that's also the main symptom of iron deficiency.

Dr. Justin: [00:06:44] That's right. And they say symptoms of an excess can mimic a deficient to your right.

[00:06:51] So so you got your energy back which was probably required to get through the Naturopathic medical degree and board exams. Invariably you've probably, or I guess you see quite a few patients with various types of struggling with energy and iron. So what are the, who are the patients walking in your door. What's their story?

Dr. Justin: [00:07:10] The main things that I see coming in are chronic fatigue. They maybe had an iron deficiency in the past but they're told that they don't have an iron deficiency anymore and we'll get more into that. Talking about the reference ranges. They usually have a lot of hair loss, no motivation to do anything, they feel cold all the time, low blood pressure and they'll usually have started a lot of those symptoms after having a baby.

Dr. Dave: [00:07:40] Right. So I want to talk about maybe the difference between what you learned or knew about iron and anemia and hemochromatosis too, it's all iron it's excess or deficiency. But I feel like only after nine or ten years of practice do I understand absolutely, well not absolutely, but better understand how critical iron is to so much more than what I learned in school.

Dr. Justin: [00:08:10] Yeah for sure. I think one of the biggest flaws in schooling and on the western medical side is that they think iron doesn't matter unless your hemoglobin is low and that could be further from the truth. I just started treating like if I saw the symptoms of an iron deficiency and the Ferritin was below an 80 I would treat it. And then I've been getting patients coming back over and over again just like unbelievably surprised how much energy they had and they didn't think they could ever have that much energy and they thought they're just basically worn out from being a mom of a

couple of kids, and then once their energy levels come up they're like "Oh my God I didn't realize I could have this much energy". So I don't know I don't feel like it was emphasized enough in school and I think that was more of a clinical experience type thing that has led us to be treating it a lot better than what the family doctors are doing.

Dr. Kara: [00:09:10] There's also a very low bar set from what conventionally is accepted as as as normal iron.

Dr. Justin: [00:09:17] Yeah. It's unbelievable like the ferritin reference range with Life Labs is 5-272 which is just crazy and it's bounced around quite a bit like when I first started practicing I think it was 30-330. But we have to understand that those reference ranges are just based on stats. They don't have anything to do with how you feel or how the people who got tested feel, it's just 95% of people fall within that range. But if you think 90 percent of that 95% are iron deficient it's going to bring the reference range down a lot. Right.

Dr. Kara: [00:09:51] Of course.

Dr. Justin: [00:09:52] So I try to get people to stay between 80 to 150 and usually that's when patients feel the best.

Dr. Dave: [00:09:59] Do you find your patients are coming to you after seeing a medical doctor.

Dr. Justin: [00:10:04] Definitely, they'll go to their family doctor, same type of thing, they'll be diagnosed with depression because they're super tired and they have no motivation. And then I'll say "well let's let's rule out any biochemical causes of we'll call it depression or fatigue" and then boom all of a sudden it comes back and they're ferritin is like at a 20 or a 30 and then we get it up and within a month they're feeling like they have way more energy and they're not depressed. Well we'll call it low motivation their motivation comes back up.

Dr. Dave: [00:10:35] Yeah. Are they coming in with ferritin testing being done by the doctor or are you usually running the ferritin testing?

Dr. Justin: [00:10:42] Yeah I'd say it's 50/50. I do get a lot who come in they all always ask them to bring a copy of their most recent bloodwork or I'll do a release of records to get a copy of what was most recently done. Yeah. Their family doctor will test it and it'll be like even, I've seen it as low as like a 13 and no one said anything to them because it wasn't flagged low.

Dr. Kara: [00:11:03] Yeah that's when I get often a patient saying "oh my doctor said my Iron's fine".

[00:11:08] Yeah. Yeah yeah. It's terrible.

Dr. Dave: [00:11:13] It's so critical to like motivation. You've brought this word up, motivation, a few times and I see a link between energy what biochemical energy and psychological motivation. If we don't have these things then you can't start change because change takes energy and motivation. So I just see iron as so critical to further changes. Maybe, can you comment how things change when you help someone with their iron does it lead to a progression of, you know, now they want to fix this or that.

Dr. Justin: [00:11:47] Yeah it definitely enables them to improve on so many different levels. Emotionally, if they're not feeling like they're depressed anymore that's going to open them up to being able to start exercising again which obviously we know is going to cause a positive positive upward spiral. Um, one really important thing too is that iron is important in the production of dopamine which is a reward mechanism that has to do with motivation as well. Right. And you have to think so you have, we'll see a 35 year old woman who has had two kids her iron or her ferritin is like a 13, she's got no motivation, she's feeling depressed (which on another side definitely has a lot to do with postpartum depression.) No motivation to exercise and then you have to think if she does push herself to exercise, a) she's going to be spreading herself too thin because she doesn't have that iron in her system to be giving her that energy. So she's giving everything she's got already and then some. And then when she does finally exercise

she doesn't have the iron to to help oxygenate the tissue. So then she's got no stamina for when she is exercising and she's going to be sore a lot more sore the next day like it's just a terrible recipe for trying to get better if your iron is low.

Dr. Kara: [00:13:11] What other systems may cause a similar negative spirals there. So I know Iron has an effect on the thyroid and as soon as that happens that that has a downward spiral on hormones and gut and and motivation and things like that.

Dr. Dave: [00:13:25] Metabolism and energy.

Dr. Kara: [00:13:26] Yeah. Do you see any other spirals that are you know how this is all interconnected. Just to bring it out to a bigger picture.

Dr. Justin: [00:13:34] Yes. I would say the other two main ones would be vitamin D deficiency and the thyroid for sure. The thought of having hypothyroidism an iron deficiency have very similar overlapping symptoms. So I have a lot of patients come in thinking that they'll have a thyroid issue and then once we get the iron up they feel a lot better. It's not always the case because there are a lot of thyroid issues out there but there's definitely a lot of overlap there.

Dr. Kara: [00:14:03] And I see that too when when women have heavy periods their iron deficient that may be a contributor to thyroid hypothyroidism, or that's concurrently happening, which they can worsen heavy periods. That's right. And then worsens iron deficiency.

Dr. Justin: [00:14:21] That's right. And on top of that when you're iron deficient your blood is a lot thinner. So if you were to look at my blood because my iron is high it's like purple molasses basically. It's terrible. And then if you look at somebody who has an iron deficiency it's like a bright reddish pink that's really thin. And so if you think about those heavy periods some of them will go away with just supplementing with iron because if you're if you cut yourself you'll bleed more if you have an iron deficiency. So if you have a period you'll bleed more as well. But then when you bleed more you bleed more iron out. And it's this vicious cycle right.

Dr. Dave: [00:14:54] Yeah. So this sounds like the risk of taking more iron. I'm just playing devil's advocate here what people might be hearing. It sounds like the risks of being low, if you're like a menstruating female, make it sort of like worth it to consider a trial of taking iron and see what happens to your symptoms. Is that roughly true or what are the dangers of maybe doing that?

Dr. Justin: [00:15:21] Well these days I always draw on an iron panel with the ferritin, just to be on the safe side. And I would say it's being extra cautious. But I have had a couple patients where they were even in their teens and their iron saturation and serum iron were actually really high but their ferritin was around a 30. So they were just their period was basically keeping them in maintenance but they actually had iron overload going on.

Dr. Dave: [00:15:49] Yeah I think I mean this with the patient and she she has really heavy periods but I think it's been good because I think she's got a hemochromatosis. I won't go into that because, I'm not, I haven't figured out exactly what's going on with her. But is that something you may see?

Dr. Justin: [00:16:05] Yeah. Yeah for sure. That's why I call whenever I go donate blood I call it my MANstruation. That's what keeps me, keeps me in maintenance

Dr. Kara: [00:16:16] Fantastic!

Dr. Justin: [00:16:21] That's why in females hemochromatosis presents usually peri or post-menopausally, like in their mid 50s.

Dr. Kara: [00:16:28] Right, with your Mom and Grandma.

Dr. Justin: [00:16:31] Yeah. That's right. Males will get our symptoms a lot earlier because we don't have that. We're not bleeding out the iron to keep us in maintenance right.

Dr. Dave: [00:16:39] I also see a lot of correlations between iron and anemia with heart symptoms, do you see any of that? Do you see any of that? Like I've just been listening to people's hearts more and doing a better job from a cardiovascular sort of assessment as a Naturopath because I believe that we have to get better as people are needing us more. And I've seen this correlation. What, do you see anything cardiovascular wise?

Dr. Justin: [00:17:07] I do for sure. I like, I definitely see a lot of low blood pressure which we'll we'll talk about in a second, and then I see a lot of like palpitations going on, tachycardia like sorry when the heart rate's really increased. My whole thing with all that is if iron is your oxygen supplying nutrient and your iron is really low and it's not oxygenating the heart properly the heart's going to kind of panic and not do its job properly.

Dr. Justin: [00:17:38] On one, on one part, and then another is that the iron deficiency is a huge cause of low blood pressure which is another thing that is very dismissed in the western medical system, because you're not at much risk as a stroke or a heart attack. And, but the quality of life is a lot worse. So when your blood pressure's around 90 over 60, depending on your size definitely, but when it's around 90 over 60 you can get light headedness on rising you can get a lot of fatigue brain fog your extremities can be cold, and a lot of that stuff can decrease your energy and motivation if you're not, well, the best way I explain it is if your iron is low and your blood is more like water your heart isn't going to have to pump very hard to get that to get the blood flowing whereas when your blood is thicker like in hemochromatosis, we all have higher blood pressure because it's harder to pump mud through a pipe and it wouldn't be water. So then their blood pressure ends up dropping and when the blood pressure drops too much, so you have to think like maybe 90 over 60 or if they're laying down for like three hours I might drop down to like an 80 over 40, the heart is going to compensate by increasing the heart rate or by panicking and giving you palpitations. Right.

Dr. Kara: [00:19:03] Right.

Dr. Justin: [00:19:04] And so I do find that palpitations, increased heart rate episodes, usually get a lot better once the iron starts to come up and their blood pressure normalizes as well.

Dr. Dave: [00:19:13] Do you find a correlation between palpitations and time in the cycle a little?

Dr. Justin: [00:19:19] I have heard of that sure and I'm still on the fence. It's probably a combination, but I usually attribute that to magnesium and or iron deficiency.

Dr. Kara: [00:19:29] I see those heart symptoms too. I don't know if you see this is in kids where and where parents say "oh you know Johnny has always been great at soccer or hockey but we're noticing he's gotten really short of breath and all of a sudden". And my first question always is how much milk is he drinking, and that can be, that even happens in kids.

Dr. Justin: [00:19:52] Oh yeah. I don't hold back. I test every single kid that comes in here. I test their iron I test vitamin D vitamin, Vitamin A and a CBC on almost every single paediatric patient. And I've heard family doctors say they won't test until the kids 16 years old which I think is just outrageous.

[00:20:11] Yeah, it's such a critical time when you're early in your life.

Dr. Justin: [00:20:15] I know and I do find iron deficiency so often in these kids, especially one of the biggest signs that I didn't mention before his pale fingernail beds that's one of the main things I look for right away. And those kids are almost always really low in their iron saturation and the ferritin. And then they're like completely different kids once you start giving them iron. It's Amazing.

Dr. Kara: [00:20:38] So we've, so we've talked about a few reasons, you know menstrual cycles in particular and what some of the symptoms might be of low iron. Anything else that actually, on the list that we might look for or that our listeners might want to look out for that are clues to an issue with our iron?

Dr. Justin: [00:20:57] You mean in terms of the menstrual cycle specifically or iron?

Dr. Kara: [00:21:00] Just iron in general. I think you did, you did mention hair loss, shortness of breath, the cardiovascular, anything else that we've maybe not touched upon there?

Dr. Justin: [00:21:08] Chronic fatigue I have quite a few chronic fatigue patients come in where that was all that it was was low iron. You mentioned shortness of breath. I have had patients think they were either out of shape or asthmatic, like they were diagnosed with asthma, and iron actually like got their breathing issues completely normal. Did I mentioned restless leg syndrome?

Dr. Kara: [00:21:30] No I was just going to actually ask you about that.

Dr. Justin: [00:21:31] Yeah that's a big one and that's actually personally I experience a restless leg syndrome and my iron gets too high and when it gets too low.

Dr. Kara: [00:21:39] OK.OK.

Dr. Dave: [00:21:40] Is that the dopamine relation?

Dr. Justin: [00:21:42] I'm not too sure I kind of had a theory that when it gets too low it could be because I'm donating too much and when I'm not just getting rid of either and right I'm getting rid of the magnesium as well. And all the nutrients that are in my blood. But then when it gets too high I'm thinking maybe the iron is just displacing or preventing the absorption of other nutrients like magnesium. Yeah I'm not I'm not too sure what the mechanism is there but as soon as my ferritin goes above 175 I start to get restless leg and if it gets like below a 50 I get it as well.

Dr. Kara: [00:22:17] And one more thing I want to clarify you had mentioned is what's the correlation between vitamin D and iron?

Dr. Justin: [00:22:22] Oh I was just more that was more for the downward spiral that thing that we're talking about I wasn't associating it with iron. I just meant like iron, hypothyroidism, Vitamin D, are like the three main things that are causing low motivation and low, ur uh, fatigue in my practice.

Dr. Kara: [00:22:39] Gotcha. I thought I'd missed part of biochemistry there.

Dr. Dave: [00:22:42] You know when I find a lot of people low in vitamin D. I don't have actual stats from my my patients but I would say about 33 percent at least of my patients are low. And you have to pay for the test here in Ontario, which I find ridiculous because one the most reliable tests. So yeah. Like what do you see in terms of how many people are coming in actually low in vitamin D?

Dr. Justin: [00:23:07] Yeah it's it's crazy I see it all the time. I test almost every single patient for it, and it's a hard thing to predict because I have these landscaping guys who you would think would hold a lot of vitamin D from a summer, they're tanked in the winter, and then I have other people who are like, look like they've never seen the light of day before and their vitamin D completely fine.

Dr. Justin: [00:23:28] It's kind of all over the place but a very high percentage are definitely low the range is 75 to 250, and I would say the average is around 40. Especially in the wintertime.

Dr. Dave: [00:23:43] I'll jump in with an interesting maybe useless fact here. But Vitamin D and the absorption of vitamin D, which is dependent on sunlight, is one of the main sort of biochemical stressors as to why people in more northern latitudes have paler skin. Useless fact maybe but, fun.

Dr. Justin: [00:24:04] You know, what I think is a, I think this is happening, where I get a lot of patients who come over from either India or Africa where they have darker skin and literally within like two months I'll test their vitamin D and it's like an 18. So I have a feeling there's some sort of like rebound vitamin D deficiency that happens when they come here, anyway.

Dr. Kara: [00:24:26] Are there are there ethnic or just similarities with iron, that different populations for hemochromatosis, or iron deficiency, more susceptibility?

Dr. Justin: [00:24:37] There are with him or comatose us for sure. They say one in two hundred Caucasians of European descent are carriers of hemochromatosis. But in terms of the iron deficiency I'm not too sure in terms of genetics it just seems to be more gender based rather than ethnicity.

Dr. Dave: [00:24:54] Ok. With regards to hemoglobin tosses in like family history. If you have it in one side your family are likely to get it. Or is it a little more complicated genetics than that?

Dr. Justin: [00:25:09] Yeah it seems to be pretty complicated. There is actually quite a few different types of hemochromatosis too. I believe there's like eight different types of it. There's like hemochromatosis 4A and 4B in all this stuff, which I haven't really got into the genetic aspect of it, but. So my mom is like a full on expresser of hemochromatosis, but my dad's never been tested, so I'm not too sure where I stand in terms of their genes. And then, I believe I had one of the mutations. So if I had both I would load iron a lot more like I probably would have been in the thousands but I just had one of the mutations so I was in the 500 range, but ya, I'm not the strongest with the genetic aspect of all that stuff. It boggles my mind.

Dr. Dave: [00:25:58] And I'm just going to say something, maybe you haven't thought of, but maybe you have. Is hemochromatosis a bit of an adaptation to maybe anemia? Have you ever thought of like, why did the body even think of storing more iron?

Dr. Justin: [00:26:13] Yeah, they say it was due to like the Vikings, because if they lost a bunch of blood the ones with hemochromatosis were the ones that lived through it, right. Because they were able to generate more after they got seriously wounded.

Dr. Kara: [00:26:27] Right. So you're really, you're actually a Viking Iron Man.

Dr. Justin: [00:26:29] Yup, Viking Iron Man blood.

Dr. Dave: [00:26:34] I think he's quite a badass being a Viking Iron Man.

Dr. Justin: [00:26:39] Yeah you wouldn't know it walking down the street.

Dr. Kara: [00:26:42] But if we looked at your blood. Wow!

Dr. Justin: [00:26:46] Yeah. Look at my genes and my blood.

Dr. Kara: [00:26:50] So we've talked about some susceptibilities of lower iron, mainly for us females. What are some other reasons why um, why peoples iron might be low. What are some other things, as you're doing your assessment and saying "OK your iron is low", what are the, as Naturopaths our question is always why. What are the "whys" that you see, and how do you dig further into those?

Dr. Justin: [00:27:14] Yeah I'd say the main ones for kids would be all they're eating is carbs and sugar these days, nothing with like iron in it. And there is in the carbohydrate based food they have your bran and your phytic acid. And I actually read a stat that brand actually decreases iron absorption by up to 80 percent. Which is crazy because of the phytic acid content. So definitely dietary in terms of not eating any meat at all. Which brings you to the vegetarian and vegan aspect of it. One of the things that I usually go through, I have this handout that I've emailed to you guys, and in terms of the things that inhibit or decrease iron absorption beside plant based sources. You only absorb around 2 to 18 percent of the iron that is in a plant based source. So a non heme source. Part of the reason is because it's the non-heme means it's not bound to a protein. If you think about that, so if you were to look up spinach as an example, if spinach said it has 50 percent of the recommended daily intake of iron, the recommended daily intake would be I think 9 milligrams according to the government, so if as 50 percent of that you're getting 4.5 milligrams of iron, but if you're only absorbing less than 20 percent of that you might only get 0.4 milligrams of iron.

Dr. Dave: [00:28:32] Right.

Dr. Justin: [00:28:32] You need about 30 milligrams a day for maintenance right. Whereas from the red meat or the animal based sources you're getting 50 to 80 percent, because it's bound to a protein which is going to get you to pump out the stomach acid to help break food down better and then therefore extract the iron out, rather than just being like roughage that's passing through. Right.

Dr. Dave: [00:28:53] Right in the assumption with these RDA's is that we have the exact same sort of ability to digest and assimilate nutrients which is we know is not true.

Dr. Justin: [00:29:04] Yeah and it really depends on like they're they're assuming that you absorb 100 percent of what's in that bag or what's in that container, right. Which obviously is not going to happen

Dr. Dave: [00:29:13] Do you see how, you know, Gut Gangster here, kicking in. Do you see any sort of influence of dysbiosis or nasty bugs in the guts and how it impacts iron?

[00:29:28] You know I clinically haven't, like I do run a lot of the microbiology stool profile through Doctor's Data but I haven't connected the specific gut bugs with with an iron deficiency. With me, I feel like I've caught on to more of the food sensitivity type stuff, like I've had patients taking loads of iron and their irons not budging at all. And then once they stop consuming wheat or dairy then all of a sudden they start absorbing it. There's that, and then correcting hypothyroidism tends to be huge and I think that is more based on the gut as well because everything slows down and hypothyroidism including your digestive system, right. But ya, specifically with the, I'm sure there's tons of stuff with that, like with the parasites and different types of bad bacteria in the gut. There's gotta be a connection as well.

Dr. Dave: [00:30:22] Ya, cause they all use it. Like nature doesn't waste anything, so, bugs use iron too.

Dr. Justin: [00:30:29] No I was just going to say that's one of the reasons why when when my hemochromatosis was full blown I was getting sick all the time because bacteria thrive in an iron rich environment right.

Dr. Kara: [00:30:38] Right they do. Just just to finish off, maybe a discussion of iron and the gut, maybe just going more simply into stomach acid.

Dr. Justin: [00:30:46] Yeah yeah the stomach acid is a big one, so I find a lot of hypothyroid patients get low stomach acid, zinc deficiency can cause a stomach acid deficiency, or hypochlorhydria as well. And then just our society in general like we're all, not all of us, but most of us are stuck in fight or flight mode not in rest and digest mode. So you know we're all jacked up on caffeine, stressed out, anxious and then putting food into our digestive system, like it's, we're not gonna be pumping up stomach acid in that state right.

Dr. Kara: [00:31:23] Ok so what other things in our you know in our diet would would inhibit iron. So I think we've alluded to a couple like maybe calcium or milk. Anything else that we want to look out for in the diet especially at the same time or concurrently taking an iron supplement?

Dr. Justin: [00:31:43] Yeah yeah for sure there's black coffee and black pea. So the tannic acid in those decrease our own absorption big time. That was one of my instructions when I was being treated when my iron was really high was to just try to consume as much black coffee or black tea as possible. Which helped out when I was trying to get through CCNM.

Dr. Kara: [00:32:03] I didn't even think of that. I took my iron supplement this morning and then picked up a Starbucks for Dave and I for this morning, so that probably wasn't so effective.

Dr. Justin: [00:32:12] Well they say as soon as you add anything with protein into the black coffee or black tea the tannic acid binds to that protein rather than the protein in

your intestines right. So you'll be fine if it's a mocha choco latte, or whatever the heck they are.

Dr. Dave: [00:32:27] Well I wondered about that because I don't tolerate green tea. I want to, but I don't, or tea, even black tea. I think the tannins are really irritating to my stomach mucosa. But if I put a bit of like organic dairy in there it must bind them and sort of inactivate them and then I can tolerate the tea.

Dr. Justin: [00:32:48] Yeah. Yeah it makes a lot of sense. One thing, this is kind of an aside, but I always tell patients to try to get tea from somewhere other than China and Japan. Just because if you think about all of the pollution or radiation in the soil and the air and then it's getting into the leaves and then we're steeping it and then drinking the residues basically right.

Dr. Kara: [00:33:10] You're basically hot water extracting.

Dr. Justin: [00:33:13] So they'll say green tea experts or green tea connoisseurs will steep it and then scoop the top half off and then drink it. But I try to get people to get it from like Costa Rica or Sri Lanka, like go to the international section of the grocery store or whatever. But then other things that will decrease the iron absorption. One really important one that I see all the time is curcumin. That's another one. There's tons of research on that being used as a alternative to phlebotomies, or giving blood, in hemochromatosis. Yeah. Because I have such a iron lowering effect and I haven't seen that clinically.

Dr. Kara: [00:33:52] And I can see problems there, right, because you have a patient come in, or say somebody says "hey I've got lost of joint pain here", or, and they're taking curcumin, and we're not addressing the iron.

Dr. Justin: [00:34:03] Yeah. Yeah. I literally just saw that last week in my practice.

Dr. Kara: [00:34:06] Really.

Dr. Justin: [00:34:07] Yeah.

Dr. Dave: [00:34:08] Yeah. It's like one of the most common supplements I see people come in with is curcumin.

Dr. Justin: [00:34:12] Yes. Yeah. And you never know like people on that long term that could be creating an iron deficiency as well right. So. Which, you what you don't want to be doing an elderly patients who have lots of joint pain because they're already getting iron deficient sometimes.

Dr. Dave: [00:34:27] A little segue into the homeopathic approach, which maybe not everyone will be into, but I'm sort of partial to using homeopathy in a intelligent way. You mentioned that maybe you use a remedy once in a while. Do you want to talk just briefly about it?

Dr. Justin: [00:34:43] Yeah. Yeah. I'm not the strongest in homeopathy but the thing that got me on this remedy which is ferrum phos, was my intern when I was at RSNC being treated for hemochromatosis put me on ferrum phos, thinking that like cures like, and my ferritin and iron saturation went super high. So I started to think maybe that'll help with somebody who is iron deficient, and it has helped in a couple of cases where we gave, er I gave iron and the saturation, serum iron, and the ferritin didn't budge for like a couple months. So ya ferrum phos was able to bring those people up a little bit which is kind of cool. But like I said I don't, I don't use Ferrum Phos very often because like you said, you have to use it intelligently and I'm not invested enough in the homeopathy to use it intelligently I would say.

Dr. Dave: [00:35:38] I think you're doing the right thing there. I'm really into homeopathy but I kind of see it as like a software approach. And we still need the hardware. And so if you don't have the hardware of like actual ion molecules, ferrum phos, the sort of software upgrade that makes the body maybe absorb it better, it doesn't give you the hardware. So that's sort of how I see the use of homeopathy as a sort of software upgrade.

Dr. Justin: [00:36:05] Yeah yeah. Makes a lot of sense.

Dr. Kara: [00:36:07] So Justin, maybe what we, what I'd love to go over now is say we've done the assessment we realize OK you are iron deficient and obviously as Naturopaths with our patients we're working at the underlying causes in the background whether that's you know heavy periods, or things in the diet, or working on health. But you know you have a patient sitting in front of you and you say "OK. We need to give you iron". Can you just walk us through iron supplements, how to take them, dosages, you know some of the common side effects. Let's get a good overview of how to supplement with iron correctly.

Dr. Justin: [00:36:45] For sure.

Dr. Justin: [00:36:46] So one of the most common things I hear, as soon as I bring iron up, is that they'll say "Oh I'd rather be iron deficient, or I'd rather be anemic than take an iron supplement." And that is because usually the iron supplements in the pharmacy are in the form of ferrous fumarate, or ferrous gluconate, which are very harsh on the digestive system and they tend to cause constipation, abdominal cramping, just abdominal or digestive discomfort in general. So usually I recommend patients take an iron-bis-glycinate. I still don't know how to pronounce it properly, if it's iron bis-glycinate or bis-glyconate.

Dr. Kara: [00:37:27] I go with glycinate, but.

Dr. Justin: [00:37:28] Yeah, I know, everybody says something different. But either way. And usually about 30 milligrams a day of that, combined with at least a thousand milligrams of Vitamin C at the same time because vitamin C can increase your iron absorption by I believe it's up to 80 percent as well. And so I always get people to combine those if they get an iron bis-glycinate like an eight that has vitamin C already in it usually it's not quite enough they'll throw like maybe forty five milligrams in there but I don't think that's going to do much. And then I am currently on the fence because I've been giving patients the iron every single day when they need it and I retest after four months because it takes about four months for your ferritin to start to come up.

Dr. Justin: [00:38:16] But somebody just showed me some research that showed that taking iron every other day is actually better than taking it daily or twice a day.

Dr. Kara: [00:38:24] We were just reading that research this morning actually really.

Dr. Justin: [00:38:28] Yeah but I don't see that clinically though. Like I whenever I get patients to do that because I saw that article and I was like You know I might as well try it since that's what the research shows and then I had all these texts coming in, "can I just take it every day and I feel like crap the days I don't take it" and now so I'm kind of just sticking to every day and just making sure that I'm testing the the iron panel and the ferritin properly.

Dr. Kara: [00:38:55] I think that's really good way to highlight the difference between research and clinical practice.

Dr. Kara: [00:39:00] Right. Because I know what the research showing was that when you dose higher dose to dose too often or maybe even more than once a day it's down regulating the iron absorption in the gut. And sure you can clinically in a study show it's reducing absorption but that's not telling you how your patients are feeling.

Dr. Justin: [00:39:21] Yeah yeah that's true. And maybe the ferritins not coming up but one of the most important things I tell patients is you do have to go based on how you feel, if you feel great the iron's doing something positive regardless of if the ferritins coming up or not. Ferritins only a judge of your iron storage so you could be using all of that iron that you're taking and not quite storing it yet. Right.

Dr. Dave: [00:39:42] Right.

Dr. Kara: [00:39:42] Right.

Dr. Dave: [00:39:43] It's so important. I love hearing that Justin because you know when we have our lovely patients that come in and trust us to do the best we can for

them. Ultimately we want them to feel better and that's more important than some research although we try to integrate research into what we do.

Dr. Justin: [00:40:02] Yeah. And it's more important than what the actual lab work says as well right. Because, ferritin, one thing that we should talk about too is it can be elevated by inflammation.

Dr. Kara: [00:40:14] Yes.

Dr. Justin: [00:40:14] So we're not seeing a lot of these iron deficiencies because somebody is inflamed somewhere as well and that's why we're running the iron panel at the same time as really important. Did I cover enough? Sorry did I cover enough for the iron supplementation aspect?

Dr. Kara: [00:40:33] I just have one question for us first ladies okay. Do you generally do you have women either during a period or preemptively before their period to take a higher dose?

Dr. Justin: [00:40:45] I don't usually put them on a higher dose. I have had patients instinctively do that. My my thing is I just don't want them to end up you know being premenstrual and constipated like if they end up taking too much of the iron. So it's hard to know how much is too much. But ya, I'm all for that as long as the patient knows that there is a risk of them having some symptoms if they do take a little bit more And then sorry, another part to touch upon to is that there are iron bis glycinate and heme iron and I have had some patients where Heme iron they did feel a lot better on. And again with that it seems to be unpredictable so if somebody takes iron bis glycinate and they're not feeling any better I'll get them to cycle on a Heme iron instead and sometimes they do feel better on that.

Dr. Dave: [00:41:38] Good to hear because I generally use the bis glycinate, or glyconate, whatever.

Dr. Dave: [00:41:49] And yeah it's good to hear what you're saying about the heat because I just haven't used it. I've found really good results with the other one so far. But you're the expert.

Dr. Justin: [00:41:56] Well and heme tends to be very expensive from some companies as well right. All right.

Dr. Kara: [00:42:03] It is, yeah.

Dr. Justin: [00:42:05] The iron panel we should talk a little bit about for sure, I think.

Dr. Kara: [00:42:09] Yeah. Let's go over that because ...

Dr. Dave: [00:42:11] Hemoglobin is not enough.

Dr. Kara: [00:42:15] For our patients who are maybe looking at their their iron panel or working with their Naturopath to look at all of the factors involved with iron. Can you just walk us through kind of a layman's look at those labs.

Dr. Justin: [00:42:28] Yeah for sure before I start though I do want a That Naturopathic Podcast shirt that says "hemoglobin is not enough" on it. So for the proper testing to be done. So there is the CBC and the CBC is the complete blood count which will tell you about your hemoglobin which is the oxygen content on the cell, hematocrit which is the amount of cells versus fluid, it tells you about your red blood cell count, and usually if those three are low then your doctor will take you seriously but clinically those can be completely normal and you'll still benefit from iron. And I find that more often than not where the CBC looks completely fine but their irons early low and they benefit from taking it. And there's a lot of factors that can kind of screw up the CBC like if you're dehydrated it'll falsely bring all those numbers up as well as a bunch of different things. So there is the CBC. There's the ferritin which is your iron storage, so it's like a four month predictor of your iron storage. Which like I said is falsely, well I shouldn't say falsely, but it's elevated by inflammation. So if you have joint pain or you have Crohn's disease or any type of inflammatory condition your ferritin it could be up like one

hundred and ten. But that's why it's important to run the iron panel which tells you your serum iron. So how much iron is in your blood, Within 24 hours, it tells you your iron saturation which is how saturated your red blood cells are with iron or with transferrin which is the next test. Transferrin is a protein that brings iron around the bloodstream. One side note with that is the transferrin as a protein. And I have seen that low in patients who aren't eating enough protein as well. So it's hard to derive.

Dr. Kara: [00:44:30] Uh oh vegans and vegetarians.

Dr. Justin: [00:44:30] Yeah that's right.

Dr. Justin: [00:44:33] And so once I up their protein usually they start absorbing the iron they are bringing in better which won't happen with an iron supplement because the iron supplement doesn't have protein in it right.

Dr. Dave: [00:44:45] Right.

Dr. Justin: [00:44:46] And then there's the iron binding capacity is another important one. So if the binding capacity is you know medium level to high that means you can accept, your body will accept a lot more iron. But if you're binding capacity is low you probably shouldn't be taking iron because it's not going to bind anymore. Right. TIBC. Yeah that's right. Total the iron binding capacity.

Dr. Dave: [00:45:13] So this looks a lot different than most people's standard blood tests.

Dr. Justin: [00:45:18] What do you mean?

Dr. Dave: [00:45:19] I mean you ordering this. It's it's probably more comprehensive than what they've got from their medical doctor.

Dr. Justin: [00:45:26] Oh for sure yeah. They like medical doctors. I don't think I've ever seen them test the iron panel before. Yeah. And now nowadays I always run an iron

panel and ferritin, I never run ferritin on its own because there are so many times where I would send them back to get the iron panel tested, as a follow up test, so I just test them both together and it's not like outrageously priced or anything.

Dr. Kara: [00:45:48] Yeah they're pretty reasonable.

Dr. Justin: [00:45:50] Yeah. So I go based on the iron panel and a combination of that and the ferritin for sure.

Dr. Kara: [00:45:57] So actually that just brings up, how do you, what would you suggest to our patients for you know they've got maybe a Naturopath or maybe not. They're maybe working with their medical doctor. How does that all work for you or you? Are you referring back to M.D. often are or how is that kind of circle of care looking like?

Dr. Justin: [00:46:14] I only refer back to the family doctor if it's a non menstruating female so if it's like a postmenopausal female or male. Mainly just to rule out G.I. bleeding like gastrointestinal bleeding, colon cancer that type of stuff.

Dr. Kara: [00:46:38] Right. So you know low iron and people they really shouldn't.

Dr. Justin: [00:46:42] Exactly. Yeah.

Dr. Justin: [00:46:44] And then the rest of it though I try not to depend too much on the family doctor. So that's why I run all my own blood work and I just send them directly to Life Labs instead of going through the family doctor and begging them to do it. Doesn't make sense to me.

Dr. Dave: [00:47:01] Mm hmm.

Dr. Dave: [00:47:02] I think we all start out as an outcast wanting to do that but then you just run into the realities of sometimes it's just easier to send them for the do it once do it right sort of blood test.

Dr. Justin: [00:47:14] Yeah. It's so much quicker. Yeah. I don't know, I think it really is a good thing just to send them it comes right to our computer. They don't have to make an appointment with their family doctor twice like they get the rec in to get the results back. So it saves a lot of time for them.

Dr. Kara: [00:47:30] So Justin what would you say you know in all the patients you work with and your personal experience can you think of a theme or a takeaway for our listeners when it comes to iron and energy.

Dr. Dave: [00:47:42] Hemoglobin is not enough!

Dr. Justin: [00:47:50] I would say the most important thing is make sure you're not going to be like make sure you're not being judged based on the typical reference ranges because a lot of cases are being missed diagnosis fatigue and depression when they could just be taking an iron supplement, and I would also say on top of that don't just take iron get it tested first because you never know, and if your iron is completely fine which happens quite a bit then you have to look at other avenues of what could be causing your fatigue and lack of motivation and all that type of stuff.

Dr. Kara: [00:48:22] Yeah it's a theme that runs through all our ND guests and that is we ask WHY.

Dr. Justin: [00:48:28] Yeah yeah that's right you've got to ask why. And there's so many different possible causes like iron could be contributing and somebody could feel 50 percent better. And which is amazing. But then it could also be like you know burnout or vitamin D deficiency or the thyroid. But there's so many different pieces of the puzzle.

Dr. Dave: [00:48:46] Awesome. I learned a ton.

Dr. Kara: [00:48:49] Yeah, I have to assimilate that knowledge today because there's the there was great great clinical insight both for us as clinicians and for our listeners.

Dr. Justin: [00:48:59] Well thank you I appreciate that. Hopefully it helps a lot of people discover their iron deficiency if they actually have one because it's a terrible way to live your life and your irons that low. Oh yeah. One thing I wanted dad was when my ferritin got down to a thirty five because I did too many phlebotomies people were asking me if I was like terminally ill at school. And so I always can empathize with patients who come in and their ferritins like a 30. I always tell them like you know when I was at that point people thought I was literally terminally ill. So I feel for you right now.

Dr. Dave: [00:49:32] You've experienced both ends of the spectrum.

Dr. Justin: [00:49:34] That's right.

Dr. Dave: [00:49:35] It's really it's such a silver lining to you having to do this is that you've been able to be like the patient and then have such insight into iron. And that's why you're Iron Man.

Dr. Justin: [00:49:50] That's right.

Dr. Dave: [00:49:53] Again thanks so much doc for coming on the show and sharing your wisdom. I can't tell you how much we appreciate it and I can't tell you how important Iron is and how much it's going to help people listening.

Dr. Justin: [00:50:04] Well my pleasure. I appreciate you guys having me on.

Dr. Justin: [00:50:07] Thanks so much. Well I will make sure we link to how to find you and some of those resources that you mentioned.

Dr. Justin: [00:50:13] All right sounds good. You have an awesome day.

Dr. Dave: [00:50:15] You too.

Dr. Kara: [00:50:16] Thanks Iron man.

Dr. Justin: [00:50:18] Now you have a theme song. All right take care Dr. Gallant.

[00:50:29] Ok. You guys too. See ya.