

Guillermou

Consider, as Dr. Mercola has reported, the relationship between ferritin and systemic inflammation, the origin of metabolic, cardiovascular and neurodegenerative diseases, including cancer. In cancer, higher levels correlate with aggressive disease and poor clinical outcome.

www.sciencedirect.com/science/article/abs/pii/S0304419X13000395 (2013).--- link.springer.com/.../s12933-022-01450-7 (2022).----- link.springer.com/.../s12035-020-02277-7 (2021).--- A diet deficient in copper and high in fructose markedly increased the level of iron in the liver, as well as the level of ferritin in plasma.

In this review and studies, the role of copper-fructose interactions in the pathogenesis of metabolic syndrome, inflammation and NAFLD and the possible underlying mechanisms are discussed. www.mdpi.com/.../1815 (2018) journals.lww.com/eurojgh/Abstract/2022/04000/Serum_copper_ceruloplasm.. (2022).----- Elevated levels of ferritin and IL-6 also occur in individuals with high mortality due to SARS-CoV-2 infection. It is suggested that the optimal levels of ferritin for reducing cardiovascular mortality range between 20 and 80ng mL⁻¹. Patients with severe to critical COVID-19 showed higher ferritin levels compared to patients with mild to moderate COVID-19 OR= 0.882.

academic.oup.com/metallomics/article/13/6/mfab030/6287580?login=false (2021).---

www.sciencedirect.com/.../S0883944121002185 (2021).--- This current meta-analysis evaluates the serum ferritin level at different levels of severity in COVID-19. www.sciencedirect.com/.../S0883944121002185 Ferritin was initially described as an accompaniment to several acute infections, both viral and bacterial, indicating an acute response to inflammation. www.sciencedirect.com/.../S0896841121001864 (2022).---

Posted On 03/10/2024

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Dr. Mercola informs us of the danger of high ferritin associated with GGT for health in general and liver and cardiovascular diseases in particular. It is also common to evaluate the status of the three transaminase enzymes GOT, GPT and GGT, as joint indicators of liver, pancreatic, cardiovascular, muscle, respiratory diseases and other causes. In the final evaluation, the relationships between the three transaminases are studied, www.emedicinehealth.com/liver_blood_tests/article_em.htm#diseases_that.. (2022).---
www.ncbi.nlm.nih.gov/.../NBK482489 (2023).---- In addition to the most effective way to reduce ferritin with blood donation, Dr. Mercola good effectiveness of curcumin, lipoic acid and silymarin in iron chelation In these links other natural chelators such as quercetin, resveratrol, baicalin and catechins and tannins from green tea, and other phytochemicals and certain plants and herbs.

The reducing action of iron is explained by its chelating action that blocks the absorption of iron from the diet, it can affect genetic expression to increase hepcidin and protect cells from damage from excess iron, helping to reduce the risks of diseases that cause high ferritin. www.intechopen.com/.../77500 (2020).----
hemochromatosishelp.com/subscription-confirmed (2023).--- www.ncbi.nlm.nih.gov/.../PMC3821171 (2009).--- www.mdpi.com/.../1730 (2023).----
www.sciencedirect.com/science/article/abs/pii/S0278691522007840 (2023).---
www.tandfonline.com/.../10937404.2023.2224119 (2023) .-----

----- This review provides an analysis to demonstrate that CURCUMIN imparts promising metal toxicity-enhancing effects.

www.mdpi.com/.../243 (2023).---

Posted On 03/10/2024

juststeve

Gui, a potential source for Iron overload for those who get their water from springs or wells is, one never knows where or how far this water traveled from, or what it may have picked up. In this region Iron, lime, and sulfur are picked up very heavy in the areas outside of the villages, and towns. A good water filter is essential for many here. Just the reduction in the heavy sulfur, rotten egg smell, for taste is the main reason for many. A safe bet few are worried about Iron overload.

Posted On 03/10/2024

rrealrose

Hi Steve, for you and everyone, Robt Barnes, atty, describes the Amos Miller trial: "AMISH FARMER MOVES TO TRIAL" Robert Barnes on Next Steps 2024 | Amos Miller Organic Farm - - youtu.be/qyKUIVE7Uzw - - 78k views over past 2 days.

Posted On 03/10/2024

Guillermou

Good proposal Just, thanks Rose. Hepcidin is a liver-derived antimicrobial peptide that regulates iron absorption. This peptide could also be induced by toxic heavy metals and xenobiotics, thus expanding its teleological function as a defensin. Cytoprotection may be regulated by NFE2-related factor 2 (Nrf2), the master transcriptional controller of cellular stress defenses. Hepcidin regulation is inextricably linked to the acute stress response through Nrf2 signaling. Nrf2 regulates hepcidin expression through a prototypical antioxidant response element in its promoter, and through synergy with other basic leucine transcription factors.

Polyphenols or phytoestrogens commonly found in fruits and vegetables, including the red wine component resveratrol, can induce postprandial hepcidin expression, with concomitant reductions in circulating iron levels and transferrin saturation by one of those polyphenols, quercetin. Taken together, the data show that hepcidin is a prototypical antioxidant response or cytoprotective gene within the Nrf2 transcriptional circuit.

www.sciencedirect.com/.../S0891584915010989 (2015) Milk thistle has a potentially important role to play in hemochromatosis. One study showed a "significant decrease in ferritin" in a study looking at people with chronic hepatitis. There was a significant decrease in serum ferritin from baseline to the end of treatment...78% of subjects had a decrease in serum ferritin level. hemochromatosishelp.com/milk-thistle-benefit-for-hemochromatosis/ .----

Posted On 03/10/2024

Guillermou

Resveratrol also helps in iron overload by increasing hepcidin. The way resveratrol does this may be related to the way it affects the genetic expression of a gene called HAMP. A study published in Free Radical Biology & Medicine carefully analyzed HAMP gene expression and found that resveratrol (and its synergistic polyphenolic partner, quercetin) increase HAMP activity. An impressive list of research demonstrates the potential benefits of resveratrol for iron overload: . hemochromatosishelp.com/benefit-of-resveratrol-for-hemochromatosis/ Quercetin plays versatile roles in iron absorption, hepcidin regulation, and cellular iron uptake and release.

Recent advances and molecular mechanisms inform the multiple biological actions of the quercetin-iron complex. Quercetin relieves iron overload induced by various pathologies as a natural iron chelator. www.sciencedirect.com/science/article/abs/pii/S0278691518300875 (2018) In multiple human studies, the simultaneous use of iron and vitamin A supplements appeared to be more effective in preventing iron deficiency anemia than the use of these nutrients alone. Beta-carotene significantly increases iron absorption.

In the presence of phytates, polyphenols, or tannins, beta-carotene generally overcame the inhibitory effects in humans. www.ncbi.nlm.nih.gov/.../PMC3847738 .--- [pubmed.ncbi.nlm.nih.gov/9482776](https://pubmed.ncbi.nlm.nih.gov/.../.---pubmed.ncbi.nlm.nih.gov/9482776) .-- Vitamin C (ascorbic acid) increases the bioavailability of iron and its absorption from dietary sources. Ascorbic acid absorption induces both iron-independent and iron-dependent production of ferritin. pubmed.ncbi.nlm.nih.gov/2507689 .— pubmed.ncbi.nlm.nih.gov/18815723

Posted On 03/10/2024

rrealrose

Hi Gui, thanks for your article links today, especially the one from Yahuda Shoenfeld (grandfather of autoimmunity?).

Posted On 03/10/2024

badboy2

Just an FYI; In prehistoric times, on the Earth, and in and on the waters of the planet was filled with iron dust. Then plankton developed and that brought oxygen to the planet. Oxygen exposure and iron in time creates rust. This phenomenon turned the waters of the planet red, and eventually this rust sank to the bottom. There is one sea known as the Red Sea and whether the sea got its name from the early Himyarite's who lived along its shore, or many before gave the sea its name before all the rust disappeared, I do not know, nor does anyone else it seems. The bottom line is that there is a lot of iron in and on the planet. At its core lies a solid iron inner core with a radius of approximately 759 miles (1,221 kilometers). The immense pressure, equivalent to about 3.6 million atmospheres, prevents the iron from melting despite temperatures as hot as the surface of the sun (around 9,392F or 5,200C). Thankfully it all helps keep this big blue marble we live on in check.

Posted On 03/10/2024

Guillermou

Interesting information BADBOY. Also linking to JUST's comment. Some soils and rocks in Minnesota contain minerals high in iron. When rain falls or snow melts on the Earth's surface and water seeps through soil and rocks that contain iron, the iron can dissolve into the water. In some cases, iron can also result from corrosion of water pipes or iron or steel well linings. Similar to how the iron in a metal bucket rusts when exposed to water and oxygen, iron minerals in water rust and stain plumbing fixtures and clothing. Iron may present a concern if harmful bacteria have entered a well. Some harmful organisms need iron to grow. If there is iron in the water, it may be more difficult to get rid of harmful bacteria.

Iron ingestion through water is a secondary pollution that can cause serious health risks. However, 0.3 milligrams of iron per liter is a safe intake of iron, but if the level exceeds it it can be harmful. Iron in water can bring bacteria that feed on iron particles. These bacteria are difficult to digest and cause hemochromatosis in the body. If intake is abundant and iron becomes saturated in the body, it can cause dysfunction of the liver, pancreas and heart and can even cause diabetes. In the links the water treatments with light and red iron. www.health.state.mn.us/communities/environment/water/wells/waterqualit.. ,---- cannonwater.com/blog/iron-in-well-water-causes-impacts-solutions/ .---

Posted On 03/10/2024

juststeve

Badboy2, yup, and if the memory is working this process is why we have oxygen to breath. It gave rise for life to leave the oceans, and seas.

Posted On 03/11/2024

badboy2

Just an FYI;White-tailed deer play a fascinating role in the battle against Lyme disease. Deer Blood and Lyme Bacteria: The blood of white-tailed deer contains a potent property: it kills the corkscrew-shaped bacterium responsible for Lyme disease, known as *Borrelia burgdorferi*. Scientists have conducted experiments to demonstrate this phenomenon. Specifically, they focused on the serum component of white-tailed deer blood. The Experiment: Researchers obtained blood serum from a semi-captive white-tailed deer herd at Auburn University in Alabama.

They grew the Lyme disease bacterium in test tubes and added the deer serum. Astonishingly, the deer serum eliminated the bacteria. The exact mechanism by which deer blood kills Lyme bacteria remains an intriguing question. Deer as Accidental Hosts: White-tailed deer are essential for the survival of deer ticks, which transmit Lyme disease. However, deer themselves do not transmit the Lyme bacteria. When ticks bite humans, they are actually seeking deer for breeding. Without deer, there would be no ticks, but if there were only deer, there would be no Lyme disease transmission.

Implications for Prevention and Treatment: This research could pave the way for new strategies in Lyme disease prevention and treatment. Understanding how deer blood effectively combats the bacteria may lead to innovative approaches. In summary, while deer are not directly involved in transmitting Lyme disease, their blood serum holds promise in the ongoing fight against this potentially debilitating illness.

Posted On 03/10/2024

SanDiegoGirl

There is a great book, "Iron: The Most Toxic Metal" by Moon. After reading that book, I got rid of all my cast-iron cookware. Also Dr. Merola doesn't mention lactoferrin which I have read is a natural iron regulator. Too much iron, and it brings it down. Not enough and it raises it.

Posted On 03/10/2024

Segstar

And then there are those that says Iron is the MOST important mineral ...It attracts ALL other minerals to it- think about people that are clocking LOW and the hell they go through... The body functions best when it's in BALANCE..Sensationalism sells, confusion everywhere and no end in sight... sheesh..

Posted On 03/10/2024

Guillermou

Yes, SanDiegoGirl, there are three lactoferrin preparations: apo, low in iron and best used for improving the immune system, holo and native, saturated with iron, which are used mainly for anemia without the drawbacks of iron salts. Multifunctional Iron Bound Lactoferrin and Nanomedicinal Approaches to Enhance Its Bioactive Functions www.mdpi.com/.../htm (2021).----- It is better to separate taking lactoferrin from taking copper in case of anemia (see my reply to Just) - One of the primary functions of lactoferrin is metal transport, which is what we can define as its biological function.

But it also has many other functions: 1)Antimicrobial. 2). Stimulant of our defenses3). Antioxidant- 4) Anti-inflammatory and 5) Preventive against cancer. This protein is capable of binding iron ions and transporting them through the blood to the entire body. Mainly, lactoferrin helps in regulating iron levels and strengthening the immune system. To learn more about lactoferrin, you can go to health portals and specific scientific studies, such as lactoferrina.net. www.lactoferrina.net/que-es-lactoferrina Inhibitory Effects of Lactoferrin on Growth and Biofilm Formation of Porphyromonas gingivalis and Prevotella intermedia journals.asm.org/.../AAC.01688-08.---- The influence of lactoferrin, orally administered, on systemic iron homeostasis in pregnant women suffering from iron deficiency and iron deficiency anemia pubmed.ncbi.nlm.nih.gov/.../...--- Twenty-five years of research on bovine lactoferrin applications www.sciencedirect.com/science/article/abs/pii/S0300908408001909 Lactoferrin in Relation to Biological Functions and Applications: A Review scialert.net/fulltext

Posted On 03/10/2024

ulika7

Doctors still dont know that a little COPPER is needed to balance out the iron levels in the body.

Posted On 03/10/2024

MannaFood

Parasites can also cause low iron.

Posted On 03/10/2024

Segstar

They can also cause shrinking wallets...

Posted On 03/10/2024

Heart_jewel

I'm more concerned with nanotechnology in my blood.

Posted On 03/10/2024

stuckinamoment

I recently started eating a carnivore diet and allowed myself to gorge on liver. I was famished for it and suspected I was deficient in iron. Then just like that I couldn't stand another bite, it would seem to be self regulating for me. I have been told in the past I needed iron.

Posted On 03/10/2024

Segstar

This is the simple fact your body telling you what you should do..We ALL have these "built in sensors" within..This is how God designed our bodies, but today that is not celebrated anymore..It fell outta favor for what this man or the other guru says..Keep in tune with YOUR body and it would tell you things you need to know.. And live as close to nature as possible... youtu.be/YImNA0zGwUg

Posted On 03/10/2024

wannabeaknowitall

Thanks for posting your experience. I really needed to read this as I had been craving liver but got sidetracked. When I get the cravings again I'll be sure to buy it.

Posted On 03/10/2024

MoMac46

A few years ago i was eating lots of pears, I just couldn't get enough, A day or so later i read an article that pears were helpful for anemia. Lo and behold i had a blood test and found i was anemic. So my body was trying to tell me.

Posted On 03/10/2024

markone64

I have asked this question before & am still in the dark on it. Is 7 Keto a better alternative being claimed safer ? Been following Dr Mercola For more years than I can remember & am a big fan of him, his knowledge & truth in sharing his daily routines & mistakes made on his journey to great health. I still do the Nitric Oxide Release workout. I am always adapting my routines in exercise & diet with some mistakes made by me over the decades. Would love to see where Dr Mercola is now with diet routine & daily exercise, maybe that could be an upcoming video.

Posted On 03/10/2024

Segstar

Mark best to stop all of these fad diets and eat from the manual that God gave us..Live as close to nature as possible..This is how He intended for us to live..Then use the extra time you have to help others along the way..This is never going to be popular, but try it and end the division and confusion...

Posted On 03/10/2024

Zoltannovax

As always, it's humbling to see the depth and sophistication of these articles and subsequent incredible postings. Just a humble reader's thoughts, though: We often rightfully attack western medicine for throwing pills at problems - for example, statins for high cholesterol - instead of addressing prevention and root causes like diet, smoking, and diabetes that promote microvascular disease and its resulting damage of the brain, heart, kidneys, and peripheral vasculature. As much as we believe in the power of supplements, we really also shouldn't forget about the root causes of 'inflammation', instead of going after the inflammation itself - which is really just the reflection of the underlying disease processes that cause it.

In this regard, it is the underlying conditions of diabetes, chronic kidney disease, heart disease, and a number of other systemic illnesses that cause the inflammatory state that results in things like the anemia of chronic disease or inflammation. But again, as a western society - whether we believe in allopathic or more homeopathic and naturalistic approaches to illness, just throwing pills or supplements at the problem - while perhaps helping the lab tests that reflect the underlying disease state to improve or look better on paper - doesn't necessarily mean that the root cause of the inflammation and all the damage it creates is actually getting any better. A 'tough pill to swallow' perhaps, but that's the unfortunate reality of it all.

Posted On 03/11/2024

ShirIDiane

Quercetin also lowers ferritin. I am unable to donate blood so this was a positive for me as my ferritin was too high. It worked so well that my ferritin became too low and I had to stop taking it.

Posted On 03/10/2024

Smudge2

At one point in my lifetime I had ferritin levels over 600. I went to an oncologist and found I had have of the hemachromotosis gene. I found out from my nat doc that ip6 (inositol) drops the ferritin. Took it for a while and everything came out good in the end. Look up inositol and lowering ferritin.

Posted On 03/10/2024

Philip92

Isn't one capsule of vitamin E per day too much/expensive? The one Dr. Mercola offers and similar versions of other companies give you like 134mg per capsules. The RDA is about 11-15mg, and based on the recommendation from I think Georgi it's 2mg/g of O6 and Chris Masterjohn mentioned 0.6mg/g PUFA? Also what about using pregnenolone with that "trick"? And can DHEA be taken that way too? Maybe combine all three?

Posted On 03/10/2024

Dr. Mercola

It is if you are optimally healthy and have LA levels below 2%. Virtually no one has those levels. The additional vitamin E serves as protection for the LA being metabolized to toxic metabolic poisons that do most of the destructive damage of LA until you are able to get your LA levels below 2%.

Posted On 03/10/2024

grulla

"Isn't one capsule of vitamin E per day too much/expensive? " Whatever your source of Vit E is, do make sure the label reads "d-tocopherol" the natural version, and NOT the cheap synthetic version, "dl-tocopherol, that's from petroleum bi-products. chiro.org/Graphics_Box_NUTRITION/FULL/Natural_vs_Synthetic_Vitamin_E.s..

Posted On 03/10/2024

badboy2

Cost vs Price; Tocotrienols have unique properties compared to the more common tocopherols. These compounds exhibit antioxidant and anti-inflammatory effects. Cardiovascular Health: Tocotrienols may help maintain heart health. Vitamin E can reduce cholesterol levels, inhibit blood clot formation, and improve blood vessel function. Skin Benefits: Vitamin E, including tocotrienols, is essential for healthy skin. Tocotrienol supplements may promote skin elasticity, reduce wrinkles, and protect against UV damage. Potential Anticancer Effects: Some studies suggest that tocotrienols exhibit anticancer properties. They may inhibit cancer cell growth and enhance the effects of chemotherapy.

Anti-Aging and Brain Health: Tocotrienols are associated with brain health and may help prevent age-related cognitive decline. Their antioxidant properties protect brain cells from oxidative stress.... The cost of vitamin E may be high, but the deficiency of Vit. E, can make the price even higher. Sources of vitamin E are, ...While tocotrienols occur naturally in oils like palm, rice bran, and barley, they tend to be present at low levels. Tocopherols, on the other hand, are abundant in vegetable oils like olive, sunflower, and safflower oils, as well as whole grains and green leafy vegetables.

Posted On 03/10/2024

hap2389

If I donate plasma twice a week, should I have a concern of high iron?

Posted On 03/11/2024

febrifuge

A ferritin level above 100 typically means you're either inflamed writes the Dr. But what are the units used. In the UK I think our units are different, so this makes it even more confusing.

Posted On 03/11/2024

htlaeh

How lovely, Dr. Mercola, that you chose to showcase the incredible Alma Deutscher in your email. I would not have known of her but for you. Her music is sweet and so is she. May she live long and well and continue to delight us all with her gift. Thank you for bringing her to our attention. She lifted my spirits!

Posted On 03/10/2024

gdu1346

great information. thank you both.

Posted On 03/10/2024

grulla

Dr. Jeffrey Dach, (a Mercola forum member), has a website recommending various reasons for donating blood, and recommends to only donate WHOLE blood. jeffreydachmd.com/2013/04/donating-blood-prevents-heart-disease/ Especially paragraph subtitle, "Cautions at the Blood Bank- Avoid Automated Blood Collection, Apheresis, ABC" www.redcrossblood.org/donate-blood/how-to-donate/eligibility-requireme.. ~~~ www.vitalant.org/.../blood-donation-requirements

Posted On 03/10/2024

ummagina

Would any of these suggestions for iron over load help a person who is having RBC transfusions, to help bring down iron levels, or prevent them from going up too high? Thank you.

Posted On 03/10/2024

tdmartinson

My husband had high ferritin so was sent to a hematologist who redid labs which showed his levels were starting to come down and said he believed the problem was the antifungal drugs he was given. He had been told he had a yeast allergy causing the swollen feet and a bit of shortness of breath, was treated with the antifungals and a diet for 2 week which did work. He hasn't been retested yet to see if they came all the way down but hopefully they did, so apparently there are drugs that can cause high ferritin? I give him one of Dr. Mercola's curcumin so hope that's helpful but the article didn't say how much to use. Anyone know?

Posted On 03/10/2024

Smudge2

I just posted this, but in case you didn't see it, here it is. But IDK if it would interfere with anything else you're taking. At one point in my lifetime I had ferritin levels over 600. I went to an oncologist and found I had have of the hemachromotosis gene. I found out from my nat doc that ip6 (inositol) drops the ferritin. Took it for a while and everything came out good in the end. Look up inositol and lowering ferritin.

Posted On 03/10/2024

Pacone1

It would be interesting to find out if there are any heavy metal removing supplements that could help chelate iron from the blood if need be.

Posted On 03/10/2024

Pacone1

It would be interesting to find out if there are any recommended supplements that remove heavy metals that can lower your blood iron levels

Posted On 03/10/2024

I'm happy to read about curcumin. Having had Lyme disease, I'm not allowed to give blood.

Posted On 03/10/2024

caws

Interesting; in SC you can't give blood if you have ever had Babesia but they never ask about Lyme. Since they usually are found together and 30% of privately tested blood is contaminated with this you would think it would be added. I have had regular live microscopy work done for last 7 years [3 different tick bites with Lyme & Babesia] to rid myself of these pathogens and Dr can no longer find them in my blood, spit, or urine in live samples. While I carry ONE hemocromotosis SNP; I am only a carrier and have been tested negative for the disease. Good to know in case your kids or grand kids inherit another SNP from the other parent.

Premenopause I had severe bleeding & cramps from age of 12 & quite sure I was anemic. Doctors tagged me a drama queen until I brought them a jar full of clots and was put on the pill for some relief. Found out 20+ years later I was low thyroid. Even later I realized the low thyroid was from heavy metal poisoning including Hg,Al,Pb,Cd, & As. Post menopause my iron levels had always been normal but when they shot up unexpectedly it turned out that it was the cookware I was using.As soon as I got rid of the cast iron pan ;iron levels went back to normal ! I also found it helpful to know that while most pathogens feed on iron; Lyme prefers manganese.

Between that & Babesia [parasite not bacteria] sucking the oxygen out of the red blood cells it is no wonder we have no energy ! I have always felt the reason for "chronic Lyme " was because doctors not only ruin the gut with long term antibiotics [sometimes IV] but never address or test for the Babesia which needs treatment with antiparasitic. I got rid of both with Dr Stephen Buhner's herbal protocols [5 books on amazon for every tick disease]. They take 9 months but are much safer, cheaper, easy to administer and my lab slides show efficacy.

Posted On 03/10/2024

KyeSov

I have 2 out of the 3 genes tested for hemochromatosis. I have had symptoms of high iron over the years whenever I consume a diet high in iron content. By chance of experimentation with wheatgrass many years ago I found a solution. I did some research and found out that wheatgrass is a potent chelator of iron due to Mugineic Acid. Wheatgrass action as a chelator also allows it to be used in other pathologies.

ashpublications.org/blood/article/130/Supplement%201/5305/115560/Wheat..

ashpublications.org/blood/article/110/11/3829/58276/The-Role-of-Iron-C..

ascopubs.org/.../jco.2009.27.15_suppl.7012

Posted On 03/10/2024

chiamiller

Just curious if you all remember a Trump tweet from 2017 COVFEFE' Remember FEFE is iron in chemistry What do the spikes do? disregulate iron attacking red blood cells ' for the life of the flesh is in the blood' Leviticus 17:11 What are your thoughts?. was this cryptic message a warning?.. it all happened.. the jabs were rolled out successfully destroying the blood...

Posted On 03/11/2024

The balance of iron in the body is crucial for health, but sometimes it can tip toward either deficiency or overload. Let's explore the reasons behind both scenarios: **Iron Deficiency:** **Common Causes:** **Inadequate Dietary Intake:** Not consuming enough iron-rich foods. **Blood Loss:** Chronic bleeding (e.g., heavy menstrual periods, gastrointestinal bleeding, frequent blood donation). **Poor Absorption:** Certain conditions (e.g., celiac disease, inflammatory bowel disease) affect iron absorption. **Increased Demand:** During pregnancy or rapid growth. **Symptoms:** Fatigue, weakness, pale skin, shortness of breath, and cold extremities. **Treatment:** Iron supplementation and addressing the underlying cause.

Iron Overload (Hemochromatosis): **Causes:** **Genetic Disorder:** Hereditary hemochromatosis (HFE gene mutations) leads to excessive iron absorption. **Repeated Blood Transfusions:** Common in certain medical conditions (e.g., thalassemia, sickle cell disease). **Excessive Iron Intake:** Taking too many iron supplements or consuming iron-rich foods excessively. **Excessive Red Blood Cell Breakdown:** Conditions like hemolytic anemias. **Symptoms:** Initially, symptoms may be mild or absent. **Later stages:** Fatigue, joint pain, abdominal pain, liver enlargement, and heart problems. **Complications:** Iron overload can damage organs (especially the liver, heart, and pancreas).

Treatment: Regular blood removal (phlebotomy) to reduce iron levels. **Balancing Act:** Our bodies tightly regulate iron levels through mechanisms like hepcidin, which controls iron absorption. Iron is essential for oxygen transport, energy production, and enzyme function. Too little iron leads to anemia, while too much iron harms organs.

Individual Variability: Genetic factors influence how efficiently our bodies absorb, store, and utilize iron. Some people are more prone to iron deficiency, while others may accumulate excess iron. In summary, maintaining the delicate balance of iron is essential for overall health.con't.

badboy2

Let's explore the impact of excess sugar, birth control pills, and vitamin C on iron absorption: **Excess Sugar (High Sugar Intake):** Effect: Consuming excessive sugar can impair iron absorption. Mechanism: High sugar levels lead to increased insulin secretion. Insulin affects iron transport proteins, reducing their efficiency. As a result, less iron is absorbed from the intestines. Recommendation: Limit added sugars and opt for whole foods rich in iron. **Birth Control Pills:** Effect: Birth control pills (oral contraceptives) can deplete certain nutrients, including iron. Nutrients Affected: B vitamins (riboflavin, B6, B12, and folic acid) Vitamin C Magnesium Zinc Duration: Since contraceptives are often taken over extended periods, subtle effects can accumulate.

Recommendation: Women on birth control should ensure adequate intake of these nutrients. **Vitamin C:** Effect: Vitamin C enhances iron absorption. Mechanism: Vitamin C (ascorbic acid) reduces non-heme iron (from plant-based foods) to a more absorbable form. It forms a complex with iron, improving its uptake in the intestines. Recommendation: Pair iron-rich foods with vitamin C sources (e.g., citrus fruits, bell peppers) to optimize absorption. In summary, excess sugar can hinder iron absorption, birth control pills may deplete essential nutrients, and vitamin C enhances iron uptake.

Being mindful of these factors helps maintain optimal iron levels. For more detailed information, you can refer to the following sources: Scientific American: How Birth Control Pills Affect Your Nutritional Needs Casa de Sante: What Vitamins Should I Take While On Birth Control Verywell Health: You Don't Need to Take Vitamin C With Your Iron Supplements, Study Suggests. It might not be wise if you are thinking of taking in sugar to cut down on iron, for it will lead to not only diabetes, but non alcoholic fatty heart and liver disease weaken immunity, and many other health problems.

Posted On 03/10/2024

Guillermou

Interesante aportacin. badboy. La sobrecarga de hierro se considera un mecanismo potencial parcial subyacente a la deficiencia de cobre y al sndrome metablico inducido por la fructosa. Demostramos que la dieta marginal deficiente en cobre y alta en fructosa aument notablemente el nivel de hierro en el hgado, as como el nivel de ferritina en plasma en ratas . De manera similar, los pacientes con NAFLD con niveles bajos de cobre tenan sobrecarga hepatica de hierro. La dieta alta en fructosa condujo a un aumento de los niveles de transaminasas , y se observ depsito de hierro en el hgado, acompaado de un aumento de la cadena ligera de ferritina, hepcidin, transferrina, receptor de transferrina 1, protena reguladora de hierro 1, hemojuvelina y transportador de metal divalente 1.

Adems, los niveles de ferroportina se redujeron, como se esperaba del aumento de hepcidina. Era evidente un fenotipo de inflamacin progresiva, con aumento de los factores inflamatorios, MDA, IL-1, IL-6 y TNF-, en el suero y el tejido hepatico En esta revisin y estudios, discutiremos el papel de las interacciones cobre-fructosa en la patogenia del sndrome metablico, inflamacion y NAFLD y se discuten los posibles mecanismos subyacentes. www.mdpi.com/.../1815 (2018) .--

-://journals.lww.com/eurojgh/Abstract/2022/04000/Serum_copper,_ceruloplasmin,_and_their_relations.13.aspx (2022).-- In multiple human studies, the simultaneous use of iron and vitamin A supplements appeared to be more effective in preventing iron deficiency anemia than the use of these nutrients alone.

Beta-carotene significantly increases iron absorption. In the presence of phytates, polyphenols, or tannins, beta-carotene generally overcame the inhibitory effects in humans. www.ncbi.nlm.nih.gov/.../PMC3847738 .--- pubmed.ncbi.nlm.nih.gov/.../--- pubmed.ncbi.nlm.nih.gov/9482776 .--

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Professor Douglas B. Kell, Research Professor in Bioanalytical Sciences at the University of Manchester, UK. and Etheresia Pretorius of the Department of Physiology, Faculty of Health Sciences, University of Pretoria, South Africa take an approach to explain a number of apparent paradoxes of serum ferritin, including: 1) why it correlates with biomarkers of cellular damage , 2) why it correlates with biomarkers of hydroxyl radical formation (and oxidative stress) and 3) it correlates with the presence and/or severity of numerous diseases. Serum ferritin levels primarily represent a consequence of stress and cellular damage. pubs.rsc.org/.../c3mt00347g (2014)

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badboy2

Si.

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epi-cure

Yur never alone with a split personality !

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