Q&A: Dr. Greger talks Omega-3, Pesticides, and Iron Transcript

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Introduction and NutritionFacts mission

Oh, this is Dr. Michael Greger joining a few minutes late. I apologize about that. My last interview went over. Um, I'm here live to answer any questions you might have like I do every month. For those unfamiliar with my work, every year I read through every issue of every English language nutrition journal in the world so busy folks like you don't have to. I then compile the most interesting, most groundbreaking, most practical findings in new videos and articles I upload every day to my nonprofit site nutritionfacts.org. Everything on the website is free. There are no ads and no corporate sponsorship, strictly non-commercial, I'm not selling anything, just put it up as a public service as a labor of love as a tribute to my grandmother whose own life was saved with evidence-based nutrition. Let us look at your uh, questions and start going through them. All right.

Um, Okay, let me get um, uh, first one, uh, just thanking me, that's very nice. Second question, um, if I have polyphenols, tea, berry liquid, etc. in my stomach and then eat 100 g of sesame, will I trap them in water soluble vitamins so they don't get absorbed? No, and that um, uh, sesame is not going to trap your polyphenols.

Okay, um, can low stomach acid cause malnutrition? Um, if yes, what can we do about it? And could low T3 be the cause of low acid production? Or what do we do about low T3? Um, so, um, low, um, so um, low stomach acid, um, one of the most common causes is people taking these proton pump inhibitor drugs like Prilosec or Nexium, and we now available over the counter, um, and were over-prescribed when they were just prescription only and now God knows how many people are on them, um, and associated with all sorts of serious negative long-term effects. I just did a webinar um, on uh, I did an acid reflux webinar talked about how dangerous these drugs can be increasing risk of fractures and intestinal infections etc.

Low stomach acid and thyroid questions

But so and and can play role in like the absorption of some nutrients like B12 etc. But that is not the most serious problem of not having sufficient acid. I don't think it has it's not that I know connected to thyroid hormones and what can we do about having low thyroid hormones? Well, is you treat the cause. Why do you have low thyroid hormones? So for example, iodine deficiency there's a whole long list of things that we should figure out to treat that and and and get at the root cause. Next up, what does the science say ABOUT METHYLENE METHYLENE BLUE?

Don't do it. I have a whole section this makes it sound like someone's actually eating it. God forbid. But there's they used to inject it or God they still probably do inject it into a degenerating discs hoping cuz it's toxic and they're hoping it's going to kind of destroy the nerves in the disc to prevent back pain.

Doesn't work. And so I strongly recommend against it in my upcoming book how not to hurt which will be out in December. All proceeds donated to charity. This makes it sound like somebody's eating it don't eat it it's toxic.

Hello everybody. Stop drinking alcohol. I was wondering whether non-alcoholic beer is healthy or not. Well, as with everything in nutrition it's compared to what? Right? So what would you be drinking instead of non-alcoholic beer? If you'd be drinking alcoholic beer then absolutely non-alcoholic beer is healthy. If instead you'd be drinking green tea, then no, non-alcoholic beer is not healthy compared to green tea.

Um I guess you one could ask the question, "Well, is it healthier to drink than water?" which is kind of like the baseline.

Methylene blue and non-alcoholic beer

Um and uh I'd rather people drink water than non-alcoholic beer. Um okay, do I really need to take penicillin after a tick bite? Um uh well, so um if you get the tick off uh quick enough, then you shouldn't um be have to worry about

getting something like Lyme disease. Um and uh so um and usually I think it's uh doxycycline. Um uh but uh yeah, just check yourself for ticks and get it off. I forget if it's 24, 48 hours, but tick has to be on there a long way to actually transmit disease. Can fat Oh, what a great question. Can Well, it's a great question cuz there's a there's a nice hopeful answer.

It's uh so a bad question would be like, "What can you do for a horrible cancer that no one can do anything about?" It's not a bad question at all. It's just I wish I can't I feel bad cuz I can't give some exciting hopeful news for it. So, that's what I mean by good question in that, "Oh, I got exciting hopeful news." Absolutely, fatty liver and fatty pancreas can reverse. That is the cause of uh prediabetes and type 2 diabetes, which is insulin resistance caused by excess fat insulin resistance and then impaired insulin production eventually by um uh by excess fat both in your muscles and in your liver um and eventually in your pancreas. All of which can be reversed if we can pull fat out um in in a variety of ways. We can eat healthier um and uh um so uh by eating healthier we are cutting our intake of saturated fat and sugar and we can lose weight which helps pulls fat and that's how we can actually reverse type 2 diabetes particularly when it's caught early enough because we can remove the fat that was impairing the insulin signaling that led to the disease in the first place. Okay, does AMPK supplements help reduce fat in organs? Okay, so AMPK right is the fat controller enzyme which we want to boost but I don't know what an AMPK supplement is it's not like you can just take the enzyme.

Tick bites and reversing fatty liver

But presumably these are supplements that purport to boost AMPK. If it did indeed boost AMPK then it would indeed reduce fat in organs but I would not take any kind of supplement for that I would. There are healthy foods. So for example vinegar when vinegar is when so vinegar is by definition a solution of acetic acid in water at a certain percentage and acetic acid when metabolized by our body uses up. Um.

The the. The results in to to skip the biochemical explanation results in a boost in AMPK. And so that's why maybe one of the reasons why vinegar has been used to treat obesity for centuries. And when actually put to the test you can randomize people to a like a vinegar drink with two tablespoons of apple cider vinegar versus a placebo vinegar drink using a different kind of acid so it tastes the same looks the same blah blah blah but doesn't have any actual acetic acid so it doesn't boost AMPK.

And you can see in the placebo group placebo fake vinegar group you know they continue to. Gain body fat in their internal organs. Whereas in the real vinegar group, as determined by CT scan, significantly decrease in visceral fat. That's that really dangerous deep um fat that's encircling and infiltrating your organs. So, uh yeah, just uh so you say, "Wait a second, how am I supposed to uh have vinegar every day?" Well, never straight, you don't want to burn yourself, I guess. So, you sprinkle on a salad, make a dressing out of it. You could have it to some tea with some some hot water and lemon and drink it. Um but just uh make sure it's diluted first.

Okay, next up. >> [clears throat] >> Do I have any suggestions for people with chronic pancreatitis? That was not a was on the list, but it didn't make the final cut for how not to hurt. So, this my book on pain management that comes out in uh in December. Um as I covered all the major cause and most common causes of of pain from back pain osteoarthritis to migraines to, you know, uh menstrual pain. Um but did not make it down to chronic pancreatitis.

AMPK, vinegar, and chronic pancreatitis

Um uh and so um I actually did um start I actually collected PDFs for it um thinking that I would be able to cover it. But in the end um the book was already going to be too long. And so, uh but because I have all the research compiled, um uh it should be easy to look at and see what if there's anything juicy in there. And if there is, I will do a video about it. Um uh um just because there's um lots of things we can do for other similar kind of chronic inflammatory conditions. And so, hopefully there's something we can do for chronic pancreatitis as well.

Um I I just don't know since I never ended up writing that chapter. Okay, in raising Oh, raising my recommended serving of ground uh flax to 3 Tbsp, am I no longer concerned limiting it to 1 Tbsp due to heavy metal exposure. Um so, if you don't understand what Cindy's talking about, um this in my book, do I have it here? I do have it here. In my Lowering LDL Cholesterol Naturally with Food book, um I have a um uh spe- so, I tweaked the Daily Dozen

to be maximally LDL cholesterol lowering. So, for example, you know, I say, you know, "Oh, we should eat beans every day." Oh, but there's specific beans that lower cholesterol more, so eat those beans. Um eat vegetables, you know, this particular vegetable. Oh, but there's specific vegetables, there's specific nuts, there's specific, you know, and so, um uh in the specific spices, for example, then will significantly lower LDL cholesterol.

Um and and they what happened with the flax recommendation is I upped it to 3 Tbsp a day because that is the minimum dose that's shown to significantly reduce LDL cholesterol. And that is the goal of the book. Why? Because LDL cholesterol is the primary driver of our number one killer, um heart disease. Um and uh so, we want to get it as low as possible for as long as possible. And so, one way to do that is to eat lots of flax. So, it's like a tablespoon of flax with each meal.

Um now, my uh the the concerns about limiting flax didn't have to do with heavy metal exposure, but it has to do with cyanide exposure. You say, "What?" Um uh most uh major crops actually are cyanogenic.

They actually produce cyanide. Our bodies developed all sorts of ways, five different ways to to to detoxify um cyanide within our bodies, but obviously there's a limit. Um uh and uh um and so, and the limit is uh for for you consumption. So, you You people and they gave people I I have videos about this, but they gave people massive amounts, like, you know, cups of of of flax seeds and did not get into kind of danger levels with cyanide exposure and never was able to kind of create any symptoms of cyanide exposure. Um but the concern is that kind of on a chronic basis. Well, yeah, okay, yeah. So, acutely, you need a lot of flax and doesn't seem to do anything.

Flaxseed, cyanide, and LDL lowering

But maybe every day, if you ate it every day, um and so they came up with a um based on uh and so I talk about how they actually uh the the developed this this no effect level um for chronic exposure and it basically came down saying, "Hey, you should, you know, I think it was like stick to under two tablespoons or stick to one tablespoon a day." And that was based on um some found that at 100 times that human equivalent dose, there was some issue with uh in rodents. And so they add like a 100-fold kind of safety uh uh you know, uh just as a safety factor. Um so that was the the lowest So, basically, take the lowest dose that caused any adverse effects in rodents and you convert that to how much that would be in human dose and then you divide it by 100. And so that's where you get basically get the one tablespoon a day.

Um so we don't actually have any evidence that there's harm. In fact, people eat lots of flax have all sorts of benefits. Um and uh one benefit would be lowering LDL cholesterol, which would outweigh, um I think, um the uh long the any long-term effects of of uh that increased cyanide exposure from uh ground flax seeds. Um and uh so that's why I recommend it because the benefits would outweigh the risks because heart disease is our number one killer and anything we do um to uh to lower our LDL should be considered. Okay, Cindy is back.

Is there any evidence that uh algae-based omega-3 supplements raise LDL? I don't um I haven't seen any. Um but that's a that's a question that um that that that should be easy to figure out. In fact, I can do a real quick search right now, but I I'm so I I don't think we'd find anything. Um so I encourage people continue to encourage people um to try to get about 250 mg of a uh gluten-free or algae-based DHA as long-chain omega-3, particularly for cognitive health, particularly in older men um uh uh as uh to to improve their cognition or to maintain their cognition. All right, Mind Jam asks, "Curious about thoughts on exfoliating." Huh, exfoliating uh and using like I guess face masks. I have um don't think So, I have a preserving your skin chapter in How Not to Age, but I do I did not get into exfoliating or masks. I did do there I do talk a lot about kind of anti-aging serums and creams, things to put on your face and not put on your face, but um and maybe some of those are in the masks, um but uh yeah, that is not something I looked at specifically.

All right. Um Cindy's back. Are there any concerns about heavy metal exposure with um any of the other things in LDL? Cocoa isn't one of them. Um um there haven't been uh uh they haven't found any heavy metals in like straight amla powders, although they have in kind of amla like triphala, which is like an amla mixture, Ayurvedic amla mixture, but just straight should be fine.

Omega-3s, skincare, and heavy metals

Um turmeric used to be a problem if it came from uh uh Bangladesh, but they've kind of got rid of this whole lead chromate thing. So, uh not any that uh that I can think of off the top of my head. I would encourage people to do as many of those LDL lowering things as they can. Okay, is DHA EPA ALA consumption best at the start of the feeding window or at the end? It does not matter. Your body doesn't care. Um as far as I uh I would understand. No, no, your body's not that picky.

Eat it whenever you can get it. Of course, the source is what matters most. All right, 59 years old for the past 5 months gained um you know, 5 lb or so. Um [snorts] 4 and 1/2 lb uh eating oh oh eating according to my recommendations and not changed my eating habits beyond that. And flatulence has been foul-smelling.

Okay. Um that I would love to see what your what's in your diet. Um uh so, yeah. Um it's email me with your dietary record and we'll find out we'll get the we'll get to the cause of what is going on with your diet leading not only to foul flatulence, but um but weight gain, which I'm presuming you're implying is a body fat gain.

Which would not be good. Um where's the next one? Here we go. Um a lot of omega-3 questions today. When I'm consuming 3 Tbsp of flaxseed Oh, do I need to take EPA DHA supplement? Um uh Oh, so the the the the logic behind this question is look, you're getting so much of the short-chain alpha-linolenic acid with eating that much ground flaxseed, you'd think we'd make enough of the long chains um for uh sufficient cognitive health, it's possible. Um It certainly makes it probably makes it less critical, although we don't even know if it's critical in the first place, but we do have randomized control trials showing people supplementing with 250 mg of DHA having beneficial at um who have omega-3 indexes of non-fish eaters or those who don't eat a lot of fish, um there's cognitive benefits, and so for that reason I would continue to recommend them just because the the the ability of people's bodies to elongate the short-chain omega-3s differs differs by individuals. I think women tend to do a little better because they're creating a brain from scratch in utero, which is about 1/3 dry weight DHA. Um but um uh yeah, I'd still recommend it, but again um we don't know if it's necessary.

Any updates about Oh, glyphosate?

Weight gain, flax, and algae omega-3s

Didn't I just We just put up a new a video updating the kind of GMO debate. I think it was like 10 years ago we had a series of videos on GMOs. Um we talked about glyphosate, and then we just did an updated video. I think Christine did, Christine Dennis, who was our former senior research scientist. Um she did a video talking about the latest um and the IARC IARC conclusion um that it may be cancer-causing. Um which is disagreed by the by EFSA, the European Food Safety Authority, and by the FDA, and I talk about the controversy, so check out this video if you want to know more. >> [cough] >> Excuse me. I got the fan on, and it's drying out my my vocal cords after a day of speaking. Um [snorts] we This is my 1 2 3 4 5 6 um sixth interview / presentation I've given today. How do I advise patients who push back against consuming plant-based foods or concerned about the cons of chemical exposure outweighing the pros of eating chemical exposure? I assume you're talking about pesticides, but many of the most concerning pesticides, like organochlorine pesticides, um, actually, uh, build up the food chain. So, they're fat soluble. Um, and so, by eating, you know, meat, you're actually not just eating that animal, but all the plants that that animal ate. They then concentrated up, um, those, uh, those pesticides. So, you may actually get more exposure to some of the most dangerous pesticides. Now, some pesticides are not, um, there's some concerning fungicides that aren't fat soluble and that's, that's not an issue and um, but, uh, but, uh, you can, uh, if you don't want pesticide-laden foods, you can, um, buy organic. And I talk about, um, have videos talking about the kind of pros and cons of choosing organic or just spending your money getting lots of more conventional produce. Have I researched the best diet for longevity in dogs? I have not, just because I am not a veterinarian and just don't know that literature. Um, uh, and, uh, and so, what do I feed my pups? I feed my pups what the recommend, what the veterinarian, what the expert says.

Glyphosate, pesticides, and organic produce

What the veterinarian recommends we feed our pups. Um, I am a veterinarian, but very limited one to only one species, and that is human species. I don't know how veterinarians know all the species. That's pretty impressive.

Um, next up, what foods can increase iron absorption? I've been taking [clears throat] iron pills, um, and ferritin is up to 24. Before iron pills, it was five. So, I would encourage you to check out, I think it was in May, we did a whole series about iron pills and iron deficiency anemia and actually the ideal ferritin um, who shouldn't should not be trying to increase their or iron absorption. But if you really are trying to increase your iron absorption, then vitamin C rich foods in the stomach at the same time as iron rich foods can help improve absorption. And so that is what are some vitamin C rich foods? Citrus, tropical fruits, broccoli, bell peppers. Those are some good vitamin C rich options.

All right, what else we got? Oh, we're more iron. If iron supplementation is needed on deficiency how to best reduce the oxidative stress. We can definitely reduce the kind of intestinal damage done by taking iron supplements by getting intravenous iron which if you're iron deficient enough, you're may actually be be an option. But of course not being iron deficient in the first place and and that is finding the reason why you're iron deficient. Maybe you're not getting enough iron but maybe you're losing iron.

You know, maybe you're anemic cuz your body's not making blood cells like it should. Maybe you're have blood loss that invisible blood loss from your intestines. There's all sorts of things. So you need to find out what is and then treat the underlying cause.

All right, next up. Oh, we just did that. Next up. >> [clears throat] >> Does tempeh pasteurized by producer cause PPO related nutrient loss of other foods like mushrooms, bananas do? What if it wasn't pasteurized? No, so polyphenol oxidase is has nothing to do with tempeh, right? Polyphenol oxidase, these are in foods that turn brown. So that is bananas, avocados. You cut it open and turns brown. White mushrooms.

But tempeh tempeh doesn't have that, uh, that I know of. And so, I wouldn't worry about it unpasteurized or not. I didn't Did they Do they pasteurize tempeh? I don't even know.

Um, but it is good idea to cook tempeh. We shouldn't be eating tempeh raw. In fact, you shouldn't even be eating tofu raw. Um, it really should be cooked or in aseptic packaging, um, for food safety reasons.

Um, oh, absolutely there are hopeful, uh, plant-based recommendations during a Crohn's flare. Um, and yes, I have a whole chapter a big chapter on inflammatory bowel diseases where I cover both ulcerative colitis and Crohn's disease in my upcoming book, How Not to Hurt um, talking about the benefits of plant-based eating and then specifically what foods we can eat or avoid. And so, definitely go into that. Um, and so, stay tuned. I'm excited for people to I'm excited for the talk. I I finished the, uh, uh, presentation, um, which I should be getting the slides back for next month. Um, and I will and I'm giving it for the first time at a conference at the, uh, International Congress on Nutrition in DC in August.

I will premiere it and it's actually going to be videotaped. We'll put it up on nutritionfacts.

Iron absorption, tempeh, Crohn's, and closing remarks

org which is exciting cuz first time I gave it, but of course, all the timing's going to be off. Maybe the jokes don't work. I don't know cuz it'll be the first time I'm giving it. Yet, that's the one that ends up on the website, ironically. We should probably replace them with one I do like a year later where I'm like have it all memorized and I, you know, all the things land and then anyway. Anyway, but at least you get the information. That's the most important thing. Okay.

PubMed studies show organic produce is more likely to have bacteria pathogens than non-organic because they have they use more fertilizer manure to fertilize. Do I agree? Organic recalls seem common.

Um, uh, so, I mean the the the manure should be I mean they they treat manure beforehand to uh um to to to to to reduce the pathogen load. Most of these recalls that you see with produce in general is um kind of kind of raw sewage. So, there's like you manure in a irrigation ditch or something that got sprayed on or something like that. Um, and so I'm not aware of any studies showing organic produce having more pathogenic um bacteria. So, but send them my way and if that's a thing, I'll do a video about it. Okay, oh, we are running out of time.

Was there some maybe I can do something really quick. Is it healthier to eat the only the most nutrition nutritious lentils? Um, so I did a video like what's the best lentil?

I forget what based on whatever criteria. I think it was antioxidant content. Eat a variety of lentils. Whatever eat whatever lentils you can find. Whatever's most convenient, the ones you like the most, the ones that you will eat the most. If like whatever was whatever was healthiest or had the highest antioxidant content is hard to find or you don't like it as much and you just end up on eating as much, don't do it.

Um, eat a variety of foods. But, if you don't care uh what kind of lentil, they all taste the same to you, they're all the same price and they're all as convenient, might as well choose the one that has more nutrition or antioxidant value or whatever um fiber content, you know, and on the list. Um, anyway, okay, we're closing out here.

Um, the oh, the one thing I want to say is we my books like How Not to Die or How Not to Diet or some of the cookbooks whatever are part of the Prime Day sales going on. And Amazon has like a Prime Day thing. I think it only goes on for 2 more days or something, but some of my books got wrapped up into that. Um so, I don't know if you want to buy it my If you don't already have my books and want to buy more for people, um then this is a good time to buy it.

Um uh on Amazon specifically because they have a big sale. Otherwise, just tell your friends and family to go to the local public library and check it out themselves. Thank you so much, everybody. See you next month.