Rethinking Heart Disease, Inflammation, and Aging With Dr. Blane Mire Part 1 Transcript

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Introduction to Creatine and Brain Health

The newest data that's come out with creatine is amazing and it's for the brain. Yes, exactly. I've heard a lot about that. In older patients and the cognitive benefits and neuroplasticity and this list of these wonderful possible benefits.

This is obviously more research in these places, but they've been looking at this for a long time. And I think there's plenty of data that suggests that adequate amounts of creatine for the brain really feeds the brain and gives us the energy.

And that dosing was 15 to 20 grams a day. That was in an older population. And as far as I know, they had no major issues associated with doing that. And I'm not here telling your audience to take 15 to 20 grams of creatine a day.

I am here saying that I personally, based on my research, and I do a lot of research, reviewing of the research, that I feel strongly and I tell my patients all the time that creatine needs to be part of your daily plan.

Welcome to Ever Young, a podcast for high performers who live deliberately and age with intention. I'm Rich Hanley, Harvard trained, military tested, and still chasing P Performance at age 60. Here we explore what it really takes to stay sharp, strong, and deeply alive.

Podcast Intro and Guest Background

So let's get to it. Hello, everyone, and welcome to the show. Today we are joined by Dr. Blaine Meir, a board-certified integrative internist who has bridged the gap between conventional medicine and cutting-edge longevity science.

With advanced training in functional, regenerative, and metabolic medicine, Dr. Meir is on a mission to shift healthcare away from disease management and toward prevention, performance, and true healthspan optimization.

He helps patients uncover the root causes of aging and illness through advanced biomarker, gut, and genetic testing and builds personalized strategies that integrate the best of science, lifestyle, and innovation.

Whether it's hormones, metabolism, the microbiome, or cellular resilience, Dr. Meir brings clarity, evidence, and hope to people ready to take charge of their future health.

Thanks for joining me, Dr. Meir. Thanks for having me, Rich. Who wrote all that stuff? Somebody long-winded there. Well, it's amazing. So I've been checking you out on Instagram and your content really resonates with me and my ethos on how medicine should be practiced.

I really love your approach to preventative care. I'm going deep with the diagnostics and genomics of healthcare. Let's start with a deep dive of kind of your personal ethos, how you came to medicine, why is it that you're doing what you're doing?

Yeah, sure. I certainly appreciate you appreciating that social media that I'm playing around with because that's very new to me. Let's go back to the late 90s when I trained at a very traditional internal medicine residency with brilliant doctors.

I thought they were the smartest people. I felt very, very dumb around them. They were just very smart people. I learned so much. As you know, when you train in a conventional medicine program, you just are fed through a fire hose the entire time.

And you gather so much information and you spend so much time learning how to utilize it. And so, you know, I got out into practice. I'm not that old of a guy, but I'm really a dinosaur when it comes to internal medicine.

I was one of the very last of the doctors that would come out into internal medicine, go and just practice medicine. I wanted to go practice in a small community and just be a primary care guy.

really thought I was going to go do preventive-based medicine, like really prevention stuff. I snuck my teeth into it. I practiced in a hospital for 20 years.

I learned how to do as many preventive testings that I could do within the foundation of internal medicine and the requirements and boundaries of insurance-based medicine, right?

So I still today do colonoscopies and EGDs every week, and I still do cardiovascular testing on my patients and so forth. But 20 plus years in, and I'm in my 27th year now, so we've been doing it for a while, right?

But 20 years in, it's like I finally said, hey, You know, I'm really good at treating disease. And yes, and certainly I've been, you know, blessed by God to be able to help people in a hospital when they're on the brink of disaster.

From Conventional Medicine to Root Cause Care

And, you know, it really fought to get them back. But what was I getting them back to? Sickness. I was still getting them back to a baseline sickness, right, most of the time.

And I just always said there's more and I've spent many, many years searching for that more. And I found it as I started transitioning into learning more about this whole medicine called root cause medicine, right?

It's sort of a mix of functional medicine, integrative medicine, holistic medicine, naturopathic medicine. You know, they're sort of labeled all these terms.

And I found organizations, one particular American Academy of Anti-Aging, that felt like bringing all that together. And so I was just very curious. And I said, I'd kind of dove in, I'd been watching it for a while.

I dove in in 2018, 2019. And really just, by the time I've come out of the other side, a few years later, I had fellowship degrees and continuing certifications.

And what it did to me in medicine is just completely rekindled my passion for it. Finally, now I feel like I go in with my patients and we can really go as deep as they will let me go.

And of course, we can get into that today, but that's the difference between conventional medicine and what I call myself today is an integrative internal medicine doctor.

because it's sort of me trying to establish the fact that I'm not leaving conventional medicine behind. I mean, the rigors of conventional medicine and conventional training and research is incredible, incredible.

And I'm not going to be the doctor that says, Conventional medicine failed me, therefore I'm moving beyond it. I just, I want to be a bridge and I feel like I've been that bridge in my community to really helping them understand what it is to really go deeper and that unfortunately we have to step outside of the constraints of conventional internal, I mean conventional insurance-based a model in a lot of ways to get there.

And I'm trying to, I'm also still working on ways to, that I can do things within the insurance-based model, but are still looking at the deeper levels of what we now look kind of as starting to call a longevity model, right?

The longevity base. Let's see what's really going on and not just treat disease or keep people unsick. right? But actually create health, like what's wrong with creating health, you know?

That's a good thing. Absolutely. Yeah, no, that's a great answer. Super interesting to hear your, you know, for me, the same thing. A4M was kind of my foray into this whole space.

And early on, I looked at it, you know, with a bit of, you know, just scrutiny, like, okay, Who are these guys and gals doing this thing over here? It seems really interesting.

But initially there was a lot of, I don't know if I can trust this as bona fide science, that the rigors behind it are truly what it's cracked up to be.

There's a lot of product sales going on in the midst of A4M conferences. But it wasn't until I went to the first A4M conference that I was like, okay, this is legit.

There's real science here being brought to bear. Yeah, certainly there are a lot of products being sold and there's that kind of bias inherent in these conferences like you would see in any other conference of its kind.

On the whole though, I was really taken by the level of scholarly work that's being done with a lot of the evidence that's being brought to bear. and the ability to go deep dive and become board certified in the specialty, if you will.

It's not recognized by, you know, most well by any American board of, you know, family medicine or internal medicine, but you have to be board certified to get the certification.

unless you're a healthcare provider like an APP, a PA, or an MP, you can get a different form of that board certification as a healthcare practitioner.

But it quantifies that experience and that understanding. And the research and the knowledge that you gain never ends within A4M. If you're consistently going to the conferences and reading, they have now a fellowship in no longer anti-aging medicine, it's in I'm calling it more of a longevity path now, so they're calling it longevity.

I think so, yeah. They've shifted gears a bit. I think their modules are still about the same in terms of the continuity. And I'll say that about it. Coming in as an eventually trained guy, sitting in there, didn't know what to expect.

I really believed that I was going to go in and say, oh, I know most of this stuff. I just need to learn some of the fringe stuff I want to learn. And I'll tell you, Rich, the one thing I was blown away by was the fact that I really knew nothing, you know, in the context of sort of a longevity model, looking at root causes, I didn't know how to look at it from that lens.

And I just fell in love with the idea that I was actually going to be able to use biochemistry again for the first time in my career. Yeah. since learning it in med school.

And so that was just phenomenal for me to be able to take on that again, relearn those pathways, and really dig into how those pathways fit into taking care of patients, right?

I wasn't just being told, use this drug for this disease, use this drug for this problem, and that's what you do, Doc. And so I was really good at writing prescriptions.

And you mentioned, you mentioned, yeah, you're right. There's a lot of, a lot of, you gotta sift through it, you know? And it's when you're in any new type of scenario, what's real, what's not real.

And certainly this longevity movement has grown so, so much in the several years I've been involved. It just keeps growing and it's great. But yeah, there's a lot of selling.

There's a lot of not sure which direction to go in when you're looking at particular modalities and supplements and

treatment options. But, you know, I look at, I look at where I was in medicine for 20 something years and we were being sold by the drug, I'm still being sold by the drug reps.

Yeah. Product as well, you know, I'm being told this is the only one you can get. Now I can at least make decisions on which ones I'll use, you know. Absolutely.

The beauty of it is natural treatments in the context of conventional medicine allows me to look at the biochemistry and a lot of natural medications, natural supplements.

I mean, 20 years ago, I was kind of scoffing at that. That's all, that's all nice, but where's the proof? Where's the science? There's a lot of, there's a ton of proof in the ton of science and a ton of words that we can use.

And that's why I think it's come together at a great time, certainly for me in my practice. Yeah, yeah, absolutely. Let's get into that. Let's get into the science a bit.

When's the last time you attended A4M? Was it this year or was it late last year? Like when you typically go? In the spring. Did I go in the spring? Yeah, I usually go twice a year too.

I go to the big one in December and then in the spring. I haven't been to one this fall yet. Okay.

A4M, Longevity Medicine, and Peptides

What were some of the standouts in terms of like diagnostics and therapeutics that you saw there that you utilize in your practice currently that you're not using in a conventional sense or maybe integrate perfectly with conventional medicine?

Yeah. So, I mean, certainly, you know, when you go to these, there's how many vendors, you know, that you did learn so much. There's 500 to a thousand vendors selling all different kinds of things.

So again, you sort, I go there with a mission to say, I've been reading about this. I want to learn more about this sort of thing. Uh, let's, let's, uh, you know, let's talk about this in the last year, year and a half, maybe not so much just what just happened recently, but, but, you know, cause I know you're, you're into this side of things too.

And certainly peptide, peptide therapy, right? You know, I got into peptide therapy therapy, you know, about, uh, four or five years ago. And then we've really had an interesting ride with their peptides because, you know, we, we got to a point where we were starting to really make some headway.

And for your audience that most, most everyone probably heard about the peptide. the craze, but these are these small chains of amino acids that have been, most of them have been studied for years.

Most of them have not been FDA approved for usually for the main reason that they just were never picked up by a big pharmaceutical company and run through the rigors of billion dollar research, research processes.

But a lot of these have some real, real natural ability to heal. The one, obviously the main one that everyone knows about is the ones that have been picked up by big pharma.

Those are your GLP ones for diabetes and weight loss. And we can talk about those at length as well, if we want to go there. But I think the big picture is, you know, we got into peptides, the FDA then got Everybody a little bit scared of him when they sort of backed off their position on them and and a lot of a lot of that has then gone unfortunately to to places where folks that want to get those particular peptides have to have to be cautious where they get them and and if the research research only labs and so forth which which as a doctor who really put a lot of time and effort into it i know you did too it does drive me a little crazy because i i wish that the fda would have realized at the time that uh that keeping it in our hands and letting us do the research on it would have been much safer for everyone involved.

But as I go to my conferences, this isn't about going to conferences and, hey, use peptides, use peptides. You really learn from the smartest people on the planet on peptides how to utilize them and which ones we can use safely.

And by the way, I'll say this as a blanket statement, most every peptide that I've been involved with has incredible safety data. That's the one thing about peptides, this is so natural occurring, incredible safety data, but you still have to use them correctly.

Most people talk about how do you want to learn how to stack them together and how to use them with other medications, how to use them with natural supplements, how to use them with your diet.

So I've enjoyed, I've gotten certifications at A4M the last couple of years to further my peptide knowledge. And I still believe that we're going to get there with peptides, you know, as the FDA and as everyone sort of comes to terms with how we can utilize them.

Yeah, I think I think the tide is shifting in that direction as well. Yeah, what type of peptides do you like to use? I mean, there's the heavy hitters that everybody's familiar with, like BBC 157, sireline, epineuralin, CJC, the things that have been around the longest.

But now we're looking at things like, you know, C-max and epitalin, and there's a host of them that work with cognitive health. And even I was, I had a clearly scan done recently, which is a CT angiography of your heart goes super deep on the the vessels of your heart.

It tells you what soft plaque and hard plaque burden you have. And the nurse practitioner that was ordering that for me recommended some peptides. I was like, oh, that's interesting.

I didn't see that coming. And I'd read about it, but to hear it coming from another clinician, it's like, hey, you might want to consider these two peptides.

And I looked at the data and I'm like, OK, there's some preclinical data there that support potential improvement of my cardiovascular disease, at least on some level.

That in combination with conventional therapies, I'm on a statin. I've kicked and screamed going on a statin. I've heard a lot of stuff that, you know, from, if you look at Instagram, you're like, statins are evil.

But I'm like, well, no, not necessarily. They can stabilize plaque at the very least. So I've been on a statin for a couple of years, although I am getting some muscle aches now.

What statin do you take? I started with, with Lipitor and I had some muscle aches there, shifted to Crestor. So now I'm on Resubstatin and a bit of muscle aches.

If you're going to like a statin, right? If you're going to like a statin and for your audience, I used statin for 27 years. I still use statins, but I don't use statins just because your cholesterol high, right?

And we can talk a lot about that too. I use statins in a situation once I've done a full assessment of your overall health. What we think needs are and, and we just go well beyond an LDL cholesterol.

So we can, you know, we can talk about that too. But once we know a lot more detail about your risk, sometimes, sometimes for some people, a statin is an appropriate response.

I will say though, that, you know, as you, you know, that this, I'm glad you're on, if you're taking one, I'm glad you're on rosuvastatin. And the main reason, because that's one of just two that, you know, are, that basically don't cross the blood brain barrier.

Exactly. Yes, that was one of the primary reasons. I think a lot of the data, in my opinion, a lot of the data out there

that talks about brain health and risk cognitive decline are because the other ones that have been used, you mentioned one, and other ones that have been used all these years do cross the blood-brain barrier, and I think there's a big difference there in terms of risk.

Yeah, yeah, agreed. Yeah, the drug companies would tell you that there's no risk for a cognitive decline, but still, you know, from a theoretical standpoint, I worry about that personally.

And so you're right, the one that, you know, crosses the blood-brain barrier the least is my sure bet. So that's the primary reason I went with Crestor.

But, you know, now having a bit of side effect with regard to working out fatigue, a bit of muscle ache, And so, and now that I have the insights that clearly provided, which is a deep knowledge of like, okay, I know exactly where my left anterior descending lesion is.

I know to what degree, I know that soft plaque is stable, which is good, but I have not significant, it's mild to moderate stenosis in my left anterior descending.

I'm a very thin, very healthy guy. I exercise daily. I've never smoked a day in my life. I eat a Mediterranean diet and have for decades. I do have a bit of a sweet tooth.

I am edging up towards, you know, a bit of metabolic disease. My A1c was 5.8, which is bizarre. Never has been that high until recently. That's a function of my aging process.

So, I'm also on metformin to help offset that, dialing my diet back a little bit and really trying to watch my sugar intake to the point where it's like, you know, there just should be no sugar in my diet.

I don't drink alcohol either, but my mom, she's, God bless her, rest her soul. She passed last year. She died with significant heart disease, stents times three.

First heart attack in her 50s. I suspect she probably had an LP little a Elevation, you know, and she just never checked because I have it I have an LPA little elevation and that's what probably why I'm developing heart disease So if you look 20 30 years out for me, I could be like that could be my demise I could die from heart disease if I do nothing about it So tell us like if I were your patient How would you have because I'm thinking PCSK 9 is my future probably immediate future for up to me What are your thoughts on that?

How would you dial it in even further? The PCSK9 inhibitors, which are the most advanced lipid lowering agents on the market today, given oftentimes through injections, those still don't lower LPLA very effectively at all.

They can bottom out an LDL, but do we need our LDLs bottomed out? That's the big question, right? And so I'm glad to hear you had LPLA checked. And I certainly would take, as patients come in to see me and I'd do their basic profiles, I always say, we need to look deeper because you have some risk.

It could be a risk of some resistance. It could be risk of family history. It could just be risk of age of risk. And so I do advanced cardiac markers on everyone that'll let me do them.

I can get those people by insurance. So I don't have to go, Oh, you're going to pay $500 for these. I can get a full panel, including insulin, insulin scores.

We check NMR profiles, which are all the little particles of cholesterol that you get. Yeah. Because there's, there's a lot to be said, you know, HDL and LDL are not the only two anymore.

Right. And HDL isn't considered. healthy just because it's high. There's a lot of caveats now that we look into these measurements with. LDL is not the biggest issue, it's the particles.

How many of the little particles of LDL do you have? And then of course you can measure to see if they're inflamed

or not. So here's some 50-50-50 rules that I tell my patients.

Do you know that 50% of people who have heart attacks have normal cholesterol? They're like, no. So that'll tell you right there that this whole lowering cholesterol is not the full answer.

I'm not saying it's a total waste of time. This would be concentrating on this for my entire career, at least. And so, but we know that that's not the answer.

And then I talk about what everyone really believes causes heart disease. And that's when heart disease, most people think is just ischemic, right? It means when the blood vessel narrows down and narrows down and narrows down till it's…

Statins, Heart Risk, and Advanced Lipid Testing

80 to 90% blocked, right? And once it's 80% blocked, then you have symptoms. Then you have chest pain or shortness of breath or some strange symptom. And if you have a heart attack, it's just you didn't hear your symptoms or you ignored your symptoms.

But okay, well, so more than 50%, so the majority of people don't have heart attacks that way, right? They don't have heart, so they don't have heart attacks by narrowing down to 90%. They have heart attacks when they narrow down to 40 and 50%. and people are going what are you talking about 40 50 percent how do they have a heart attack yeah well they have a heart attack because of inflammation related to their cholesterol particles and other other other factors that cause their uh their vessel to rupture at 50 so that person who you your audience knows people who have unfortunately dropped from a heart attack, maybe lost their life from a heart attack.

And the family says, wait, they were on a statin. Their doctor said they were fine. They've been exercising. They eat really well. They may not know about their LP little a if they had it or not.

But the point is, is that they weren't going to have a warning sign. because the combination of inflammation and their inner inner lining of their artery wall and the plaque formation that was became soft and inflamed that combination over time led to an inflammatory storm on the wall of the artery and that artery ruptured like a volcano like that they could have run They could have run a 10K yesterday that passed a stress test.

They would have gone to have a heart, let's just say they had a heart cath. They had a heart cath. Their heart cath could have been basically clean. The cardiologist may have said, hey, everything looks pretty good.

Yeah, you got about 40 or 50% over here. Just take your statin and eat your healthy foods and everything will be fine. But as you know, because you did a clearly test, that doesn't tell us about what's going on with that plaque.

And so I show people a diagram of that vessel and I show them where that vessel can rupture and I say what we want to know is do you have inflammatory markers?

Do you have cortical numbers of cholesterol? Do you have or do you have Lp little a and there's really some other do you have insulin resistant you have some deeper markers that are putting you at risk even at a much younger age remember plaque plaque starts developing in your late 20s early 30s we're not talking about okay i got to 45 or 50 before i didn't worry about Plaque starts early and is very, very slow in insidious.

Yeah. Even in childhood, they're seeing childhood obesity. They've done studies in the military of soldiers that, you know, they've done a prossection post-mortem looking at cholesterol deposits inside the arteries of soldiers and seeing, you know, early, you know, 18, 19, 20 years of age.

depending on family history, of course, and diet and exercise and lifestyle. But that's, you're right, it started, my heart disease started when I was a youngster.

My family grew up, I grew up in a place where, you know, we ate whatever we wanted, didn't ever thought twice

about our food and tons of sugar around me.

And we were active, but I'm sure my heart disease started even back then. And here I am in my 60s, you know, looking at it and coming to grips with the fact that I'm immortal.

God's going to take me out at some point. I don't know when and how, but I'd like to not, you know, if I have any say in it, not be to heart disease, you know, at an early age.

You mentioned your LPLA, you know, as you know, I know you do the research on that, is that the pharmaceutical industry has hung their hat on LPLA right now, right?

For now, yeah. You're not hearing a whole lot about LDL cholesterol and the other cholesterol. You're hearing about, I think, four different drugs that are chasing that rabbit.

Yeah, there's the oleonucleotide medications like pellicarsin coming out in the next year or two that are going to be hammering Lp little a, but that's just one independent risk factor, right?

You're right. What about the other inflammatory issues? Yeah, so you know what the problem is, is there's nothing else out there that really drives LP to lay down significantly.

So that's not a death sentence. Like you said, you just want to address all the other risk factors, right? Yeah. And most people that I check, even when they have normal cholesterol and LDL, have elevated LDL particle number, and many of them have elevated APO-B, APO-lipoprotein B levels.

Remember APO-B, if any of them just represent good representation across the board, of sticky particles is APL-B. APL-B for every LDL particle, for every IDL particle, which is in the media, for every SDLDL particle, for every LPA particle, there's an APL-B attached to it, right?

So if you have high APL-B, that's telling you that, that's giving you a general across the board vision that you have some sticky particles you want to do something about.

And what's the best way to handle that other than maybe a statin, maybe a really important one, especially one that we talked about earlier. But if Beyond statins, you know, what I tell my patients, but what the literature has told me is that you want to, along with diet, great diet, Mediterranean style diet or similar, you want to be really optimized on your omega-3s.

And you want to be optimized as much as you can on your omega-6 to omega-3 ratio. And the point about that is omega-6s have kind of gotten beat up. But my understanding of Omega-6 fatty acids is that they're really, really important for our cell membranes, right?

And this is all about the small membrane health. You're describing DHA and EPA, correct? The ratio of those two? Is that what you're describing? No, Omega-3s.

Now there's two Omega-3s, DHA, DPA. And you want those to be sort of balanced and there's different reasons to have those balanced. But those are your Omega-3s.

And then Omega-6s are your arachidonic acid. These Omega-6s are the fats that really make up most of our fats. I appreciate the clarification. It's in a lot of seed oils, a lot of processed oils.

So we consume a lot of unhealthy Omega-6s. We need good Omega-6s. but the problem is our cells will take up that beta-magnet 6 we've taken our diet and then we get our cells get unhealthy and what do we do with our cell membranes we that's where all of our receptors are for everything right for to be able to take in nutrients and for hormone work and for everything else so So we really, your six to three ratio is really important.

You can measure that on a, on my cardiac panel that I do, I get, I get a mega six, three, the mega, it's a mega three

check, but it measures that ratio.

I'd measure beyond the, beyond the particle numbers and the inflammatory markers. But of course the important inflammatory markers that you want to get are, I'll just, I'll just run through.

LP, PLA2, myeloproxidase or MPO, certainly oxidative eCRP, but that's a little more nonspecific. The other two mentioned are more specific for the vascular wall.

And then we measure a test called ADMA, which actually is telling you how well you're producing nitric oxide. Of course, nitric oxide is incredibly supportive and protective of our vascular wall.

And so many So many insults that come into our body and attack our vessels actually attack the nitric oxide production, which then causes, as you know, the lining of your artery, the endothelium, to become damaged.

When that becomes damaged, that's when hell breaks loose in terms of inflammation. So there are markers to measure all those things. And then you get just a really nice overview of where you need a target.

So I was going at Omega-3. So high dose quality Omega-3s are really important. I use a company that has a balance oil capsule, or oil that actually has the perfect balance of 6 and 3. What is that?

What is that oil? That oil is called Balance Oil. A company called BodyBio makes that. So tell me, what is that product? Well, so it's, of course, there's a lot of fish oil products out there.

And as long as you're getting quality, there's a lot of issues that you have to work through to make sure you're getting quality fish oil and not rancid fish oil.

I use a company called BodyBio for my balanced oil. It has the ratio of about four to one omega six to omega three, which is A lot of experts talk about as a good ratio.

It takes a long time to fix those cell membranes to try to get rid of those really terrible omegas that are in some of our foods and to try to build those membranes back up, but that's a good product.

And so I use a lot of that one along with. Along with some other good companies, I've used a lot of Nordic Natural as products in mega three category that are highly rated.

They're a good product as well. And then there's Carbon 15. Interesting. That I'm unfamiliar with. So let's talk about that. So going back to three and six ratios and their effect on heart health.

So looking at MACE, major adverse cardiovascular events, what about cognitive decline? Does it stave off cognitive decline in any way, shape, or form?

Let's say you have a predisposition for Alzheimer's disease. You've got two alleles of APOE4. Do you think that there may be an implication for better in that regard?

I don't think there's any doubt about that. There's tons of data and research that backs your omega-3s, omega-6, omega-3 ratios for cognitive health. Our brains are basically made of fat and they need good fat in there to replace them and to make them work better.

And again, it's all about endothelial health. When we're talking about heart health, we're talking about all these markers and these inflammatory markers, we are not just talking about the heart here.

But we're talking about everywhere you have an artery and think of it in which is everywhere in your body. So what I think overall, we're going to continue to find what we find out about heart health and what we do all these wonderful things we can do to naturally improve heart health.

It's going to move to the brain. It's going to move to your kidneys. It's going to be for your liver. And studies are all showing that. So when I talk about this, I really am saying, hey, look, we're trying to make your vascular system healthier.

You make your vascular system healthy, then your whole system, you know, we're not just, as we know in conventional medicine, we like to silo everything.

We have a specialist for every organ, right? So moving into this more root cause medicine and the more integrative internal medicine that I like to practice, then it's just a systems biology approach where we're talking about vascular health and hormone health, and we're talking about when you're doing these things to promote health from the cellular level, that's for your entire system, your body, which is fantastic.

That is awesome. Wow. That's a really great deep knowledge of that particular way to offset advanced disease. Most people don't think about that. We're not making diagnosis or recommending treatments here on this podcast.

Of course, everybody has to follow up with their own physician, but what dose would you recommend of omega-3, the ratio you mentioned, four to one? Are you recommending a gram, two gram, three gram, four gram to depend on the disease process you're going after?

What are your thoughts there? Well, I, you know, cause I use these different products and I'm trying to, I do try to find ratios now off the top of my head, telling you exactly what people should take.

And it does sort of sometimes depend on the quality of the product and where you, who you're getting it from. Right. And so on that particular product we mentioned earlier, well, heck watch this, I do this, I do keep products.

So here, this is the product, body, body will probably reach out to me. What are you doing? But this is the product. And they're probably going to tell you exactly what it has in it.

It's got your 4 to 1 ratios. It uses linoleic and linolenic acid, which are your combinations. And you're getting a 4 to 1 ratio. So your linoleic acid, which is your omega-6.

is for two capsules, which I do tell my patients to take two capsules a day to start with. That's 14 milligrams and linoleic acid, which is your omega-3 combination, is 350 milligrams.

So it's not, you know, you can go much higher. in some products up to up to a thousand two thousand milligrams when you're looking at each when you're separating EPA and DHA.

So it's a little bit different strategy if you're using that for let's say you're using it specifically for joint health or you're really trying to high dose it for maybe for brain health.

This is just a standard sort of approach I take with with this, this particular product.

Omega Fats, Inflammation, and Vascular Health

I sometimes have people double that, but I'm trying to just say, get them into a, to the knowledge base that they're trying to do a four to one, kind of do a four to one ratio.

And then when they're looking at their products, they, they're, uh, buying and eating to not try to over consume, especially process and refined oils that are full of the mix fixes.

So teachable moment too, you know, for long. Yes, yes. Let's talk a bit about that, our food source, and what are those foods that people are probably not thinking about that are less obvious.

We have the obvious, hey, avoid sweets and avoid beef fat every single day. We need a bit of that, of course. In turn, we need the protein and the iron associated with beef if you're a meat eater.

But if you have heart disease, you're concerned about that. Tell me about, you know, the uncommon food sources where people just miss it. They're completely oblivious and they may consume it every day.

Well, of course, it's the, of course, it's the hidden sugars, right? I mean, so, and high fructose corn syrup. Thank God we're starting to see, you know, the everyday products understanding how to take that product out of their food.

But I think that it starts with all the hidden sugars in food that are processed hidden sugars in food. Sugar is not our enemy. We just have to give back to God sugar, right?

It's utilizing sugars that come from our natural fruits and plants. And again, there's a gosh, we've been through the block on around the block on how to use artificial sweeteners and how to stave the amount of sugar we take in by using these sugars.

And every time, as you know, most of them have been already sort of not debunked, but at least criticized for, you know, whether it's Splenda and DNA issues and gut issues to Even now, obviously aspartame, there's many books written about that.

There's stevia, which I thought was going to be a really nice one to use. Or now there's now issues with xylitol and stevia. The big question is, are these all really terrible for us?

Or is it just, is it going to be dose dependent? Is it like anything else taking too much of this stuff? Is it going to be what drives the disease? And I certainly know allulosis sort of made this big splash when that's the one that most people are talking about, even though it's not.

Very sweet. But so from a sugar standpoint, that's a big one. And of course, the other component is, you know, process and refine oils, right? And so very difficult for people to work through that because you're not going to be able to go to many restaurants, at least in my area of the woods here, south, and find restaurants that are cooking with clean oils.

And certainly fast foods have been a real problem since the new administration's come in. We've seen some big name fast food restaurants that have decided that at least they're going to stop just reheating the same seed oil over and over again and convert back to some natural products.

Even beef tallow is making this big comeback, which is really funny, right? I mean, beef tallow are great, great, great, great answer. You're like, well, of course, that's what you use, you know?

Right, right. So we're learning that fats aren't our enemy, right? And many of the fats that are our enemy in our diet are fats that humans have manipulated and processed.

And that's where the big problem is. So look, I just ask my patients every day to try to eat, think about how their ancestors would have eaten, how they're maybe two or three generations before them would have eaten, you know, prior to like the 1950s and 60s when they got much more of their food directly from farms.

And they weren't eating fast food all the time. And just figure out how to eat what we call whole food. Most people don't know what whole food is anymore.

Yeah. And we just got to get that. I don't think it's such a, I mean, certainly red meat is a, I think there's wonderful benefits of red meat, but I don't think, I think we over consume red meat.

We don't get enough grass fed, grass raised, and finished red meat sources. And when you do, it's expensive. And so we're battling through all that. Right?

Sure. Sure. you will get just as much horrible fats from chicken and from other birds depending on how they're raised. I mean, it's shameful to see how some of these animal sources are raised for our consumption.

I agree. Yeah. That message is loud and clear. It's getting out there and people are being more thoughtful there. And of course, we know the vegetable to fruit ratio.

Most people are like, oh, I eat plenty. I love, I get this all the time. Oh, Doc, I love my greens. I'm like, great. How many surgeries do you have in a day?

She goes, well, I meet them on Sundays. We eat them after church. I'm glad you're doing that, but the concept is we need to get this going. I mean, we even know fruit is healthy for you, but as you know, there's supposed to be like a four to one ratio of your vegetables to fruit intake.

And we know that's happening for most people. That's difficult. Getting four servings of vegetables a day is very difficult for people. And that's why I talk to people about taking in maybe some additional products that are fruits and green type products, maybe some things that provide additional amino acid support.

I love that there's some brands out there that make some really good amino acids. Of course, your amino acids even that come from plants are still going to help you.

produce muscle, maintain protein balance. And there's experts much more able to sort that sort of issue out more than I am. And quite frankly, they don't all agree either.

So anything I say, some people agree with me, and there'll be other people that'll have plenty to say that they have a different sort of ideology. Absolutely.

Yeah, yeah, there's a lot of contention out there with regard to specifics, right? That rabbit hole goes super deep. Yeah, that idea is spot on. It's really, you know, you have to balance it out.

Give us some examples of some of the fruits and grain combos thing that because people have a really hard time finding it in the store, getting it to their house and then preparing it in a way that's that's consumable.

It's time consuming to when they think about vegetables, People are thinking, okay, I got to chop that stuff up. I got to cook it in a certain way. I don't want to overcook it.

I don't want to undercook it. People are looking for maybe easier go-to, not necessarily highly processed, but readily available to make their lives easier products that they can.

And again, we're not making any money promoting these products today, people. This is just us using these things in our own midst because they work, at least in theory, And with regard to our labs, they seem to work and improve our health.

So what are your thoughts there? Any like, this is part of my daily stack. It's an easy, no-brainer, consuming, getting your protein intake and in the form of like a fruit and or a vegetable combination.

Like you'd be at a protein powder or something that's easy, readily available. Remember, I'm an integrative internist and a little biohacker at heart.

Yeah. And so I take, I do consume a lot of supplements and powders. Me too. Me too. I do that partly because I experiment with myself so that I can give valuable advice to others, hopefully.

So when I talk about companies I use, I do have a laugh at myself, but I do keep a lot of supplements in my practice from different companies. And because I try them out and I have patients that rely on me to sort of be their sort of, be their guy, right?

Sure. So for me, you know, I'm just like everyone else. I work really hard every day. I struggle sitting down. I certainly don't eat three squares every day with vegetables on my plate.

So I do it in different ways. I certainly get my amino acids through amino acid powders. And there are some companies that seemingly do a better job than others with that.

Nutrition, Supplements, and Creatine

I could take stuff off my shelf and show you this isn't a show and tell podcast, but I'm a big, in terms of just muscle maintenance, right? Just muscle maintenance, lean body mass.

I get as much protein as I can in through food every day. I try to have a nice piece of meat with every meal, usually a couple meals a day. I do practice intermittent fasting because that's something we could talk about in intermittent fasting and I do a lot of fasting protocols in my practice.

But that's sort of a different sort of mechanism of recycling cells and so forth. Because of that, I eat in a smaller window, so I do have to make sure I'm getting plenty of protein in, but I do rely on protein powders.

I use collagen peptides. Perfect Amino powders, which really, again, companies that really translate their research into amino acids creating protein.

Your audience probably knows this very clearly, but when you do a protein powder or you eat protein, let's say you eat a steak, you're like, man, I'm eating a big old steak.

I look at all the protein I'm getting. Well, there's a very small percentage of that steak that's going to go into your body. The protein then right has to break down into amino acid and then it has to get into at the cellular level that has to those amino acids that have to come back together to make a protein for that then to build into muscle maintenance.

So there's a lot of things that can go wrong there. And I think that roughly the amount of, let's say eight out of steak, roughly the percentage of protein you're going to get built out of that is less than 20%.

A lot of the rest of it's going to be. fat and sugar and other other components right so yeah so meat is great for us for it because it has a lot of other nutrients but i think that most of us that want to get that higher dose of protein it could depending on how active you are it could be that you want to get as much as a gram per pound if you really work out a lot or at least looking at that 0.8 to a gram per kilogram.

Most of us probably don't get the amount of protein we need in every day if you're just going to live in your life and not thinking about what you're going to eat for a meal.

Well, doing a protein powder, or you can certainly do protein powders if you're… That conversion to protein isn't as great either, but protein powders can be helpful.

Collagen peptides, which is mainly amino acids, that can be really nice as well. bones, skin, nails, hair, and, and of course, of course, synthesis. So I practice all, I practice all that.

My scoops go into them and I always use creatine as well. I'm a big creatine. Yeah. Just how much creatine do you do a day? Do the standard five grams a day or do you go up a bit?

I don't typically, I don't have a problem with, I spill over more, right? You know, the newest data that's come out with creatine is amazing and it's for the brain.

Yes, exactly. I've heard a lot about that. And older patients and the cognitive benefits that, and neuroplasticity and this list of these wonderful possible benefits.

I say possible, this is obviously more research than this place, but they've been looking at this for a long time. And I think there's plenty of data that suggests that adequate amounts of creatine for the brain really feeds the brain and gives us the energy.

And that dosing was 15 to 20 grams a day. And that was in an older population. And as far as I know, they had no major issues associated with doing that.

And I'm not here telling your audience to take 15 to 20 grams of creatine a day. I am here saying that I personally, based on my research, and I do a lot of research, reviewing of the research, that I feel strongly and I tell my patients all the time that creatine needs to be part of your daily plan.

Absolutely. Yeah. I'm on five to 10, most days five. But now that I've been hearing a bit about that research regarding cognitive health, increasing to 10 on some days and just testing to see how I feel.

And I don't feel any different on the 10 versus five, but yeah, I do need to kind of do it. It's a long-term plan, you know, so you're not going to get that.

Yeah. Yeah. Yeah, it's interesting. I feel, you know, from a muscle volumization perspective that the creatine does have an impact. If I cycle off creatine for any meaningful time, I do lose a couple pounds of just lean mass.

It's probably intracellular volume, because I know that it drives intracellular volume to some degree, if I'm not mistaken. Obviously the mitochondrial improvements there are there.

What else? So creatine, you're doing protein powders to help, you know, let's talk a bit about the aging process and sarcopenia. You know, you and I are, I'm starting to feel that I'm in my sixties now and it's harder to keep my muscle mass on.

Why, let's talk about it through the lens of Peter Attia's mindset, which is, you know, the centenarian Olympics. You know, we have these bold ideas of climbing Mount Fuji in our 90s and at 100 years of age.

This guy is 103, 104, I think, who climbed Mount Fuji recently, which is pretty extraordinary. But how does a guy like that get there? He has to be thinking about that.

From like now, from our perspective, age 60, we still have our muscle mass in large part, but we start to lose our muscle considerably from age 60 on do sarcopenia by doing nothing else different other than just aging process itself.

How do we offset that? We've already kind of delved into that quite a bit with protein intake becomes more important resistance training. Talk about your, your thought process on all of that.

How do we save off sarcopenia and why is it so important from thinking about through the lens of an internist? Why, why do we worry about that? Well, it's important because you die younger when you don't have muscle.

I mean, as Peter Tia has mentioned in his writings and he talks about it, it's a longevity hack to maintain your muscle mass. I mean, certainly it's obvious to, you know, if you take an 80 year old woman who has worked out every day and maintain their muscle mass versus a little frail 80 year old woman, and they trip on the sidewalk, The little frail woman has an incredibly higher risk of fracturing their hip and their back in the more, in sort of just the whirlwind of problems and co-morbidities that come along with that.

We see takes away just your years in terms of life years, but also affects your health span, right? Even if you stay living for another several years, you stay living with damaged goods, right?

When your chronic back problems are unable to ambulate without help and on walkers and all the things that people deal with when they get to that age group.

So muscle protects your joints, protects your bones and And of course it serves as an energy reserve and muscles is just incredibly important for us to maintain.

Sarcopenia, Exercise, and Healthspan

So I tell all my patients, how many patients that I've had through my career and you, that they get to a certain age. Let's say at 65, they've retired and then they go, oh, I can just stop doing everything now, doc.

I don't have to exercise anymore. I'm retired. I'm like, well, this is… Thankfully, the mindset is changing, but the mindset is more, hey, wait a minute.

Let's talk about how you can not only extend your lifespan, but more importantly, how you can extend your health span, how you can stay healthier throughout that lifespan.

And that's what most people want to know about how to do now. And we're learning, this is really what we're learning about. If I say I'm a longevity doctor, I stop short and say, wait, I'm not really necessarily, my first goal is not to make you live 10 years longer.

Maybe that sounds good, but some of my patients say, well, man, I've been a dog. I want to run out of money. I don't want to live that long. If I tell you, hey, no, if you do some things now that we make you live much healthier for the next five years, that you don't age, age biologically five years and you maintain your muscle mass and you maintain your strength and flexibility and you don't break anything and you get to five years down the road where we're going to have a lot more good stuff that we can help you with than your health span.

You extend that runway. So muscle mass preservation plays just a huge role in that. Absolutely. Yeah, most people don't understand that exercise in and of itself, it slows the aging process, not just through muscle growth, but just in slowing the rate at which we age, that if you did nothing else and you were exercising, it's one of the biggest levers we can pull to slow it down to a large extent.

And the longer you've been exercising, the longer, you know, not in and of itself, there's certainly a lot of factors, but it's one of the more important factors.

It weighs in heavily in terms of our all-cause mortality numbers. So exercising every day and it should absolutely include resistance. Not just, you know, a walk is great.

If you can do 10,000 steps a day, terrific. That's great for cardiovascular endurance and for your VO2 max period, like a zone two walk, which is, you know, a walk beyond your ability to have a comfortable conversation.

So you're walking and you're barely able to speak. That's a zone two type of 10,000 step training. But resistance training, like learning how to put your body against weight, you know, pull your push or pull your body against resistance, a substantial resistance beyond your own body weight.

You can get a pretty good body weight exercise in. If you have nothing else around you, you can do push-ups and sit-ups and pull-ups and do a pretty good workout.

But I personally have a tonal machine in my house, have since the pandemic, and that machine is remarkable. I don't have to wait for gym equipment. I'm not fighting with people at the gym to get on this piece of equipment or that equipment.

I can do it any time, day or night. And I can drop on that machine and get it done in 20 minutes or 40 minutes or an hour, depending on what I'm feeling.

It gamifies the process. It makes it fun. I can see my metrics, for better or worse, over time. I can do something different every two or three weeks if I want.

I can do something different every day. It's an expensive machine, but that kind of, you know, like, okay, that's an investment in my long-term health.

I'm getting the resistance, which not only increases my muscle mass, it increases my bone density. It helps with my mental capacity. It helps me think clearly.

It sets the day right if I do it early in the day in terms of my mental capacity, my clarity throughout the day. That machine, you know, is changing my life and is increasing my longevity and my health span.

No question. So there's not a question in there. It's more of a, just a thought process. It's so, so important. You don't have to have a machine like that to do it.

Like you said, and, uh, and I, uh, and I do, I use, use a lot of bands. I do a lot of band work. That's awesome. Cause that, that resistance for me gives me the same, same strength training I can get.

If I'm just trying to throw a bunch of weights around with it at our age, you know, I'm a little behind you, but not much, but our age, you start throwing weights around.

You're just going to walk around injured all the time. Oh, for sure. We want to do good full-length isometric exercises, resistance training, and really good stretching.

Stretching is incredibly important, right? We injure ourselves more. People come in complaining about their hip pain or their knee pain or their back pain.

And it's not the joints, right? It's the muscles that are attached to those joints because So we tried to go do something weekend warrior, or they're doing something that they're not preparing their musculature for.

And we just lose our muscles, our muscle length tightens as we age, if we don't do something about it. So I make sure everyone every day, you know, at least in my, in my world, I get on my little grounding mat every morning as I'm doing.

I'm a multitasker. Multitasking is good, right? So I get the grounding mat. I get my, you know, I get my grounding in, I do my stretching, especially for my lower back and sciatica.

I save my prayers for the morning. I just have my gratitude for the morning. I'm also doing my deep breathing all at the same time. Most people that stretch forget to breathe.

I'm like, you know what? I'm not a very good meditator. I can say my prayers and be very thankful. And I can do box breathing. So I'm like, you know what?

This is a good way to do it. It's an easy thing to tell your patients to do. A little box breathing, a little stretching. You have a little gratitude, however you want to give that gratitude.

And spend 10 minutes a day doing that without your cellphone. I love that. I love that so much. Yeah, that's beautiful. That's awesome. Yeah, that's amazing.

We were talking about what we've been learning, you know, in the last couple years, then we started peptides, then we converted to peptides and heart disease, which is obviously important.

And I agree, I'm not necessarily tying in peptides with heart disease myself right now, just because Just because, you know, because the cost of peptides, I try to use them how I feel like I can get the most out of them for patients.

I think there's definitely some data that's going to continue to come out. A lot of these peptides like BPC and thymus and beta, the thymus peptides, all affect the immune system to such a degree that it helps to balance and regulate the immune system.

And as we know, Rich, most diseases, including cardiovascular disease, is really inflammation. So it's not just inflammation and joints anymore. It's not inflammation in the skin anymore.

Inflammation and whatever we tie that to, infections. Inflammation, or as we affectionately say, inflammation aging, because inflammation is so intimately tied to the aging process.

And the more we address it through our diet and through innovative peptides and through supplementation and through exercise, when we lower our inflammation levels.

Inflammation, Longevity, and Closing Remarks

That's why I love measuring as many inflammatory markers as I can, because the more I can know their baseline and we can do things to drive inflammation down, then inflammation drives down and then people will live happier, healthier, longer.

Yeah, that's great. Well, this has been fantastic, Dr. Meir. Man, what a treasure trove of incredible information. Thank you so much for spending time with us today here talking about, we kind of meandered and that was good.

This is a great primer for people to come and drop in and kind of get a taste of what this is all about and the things that we consider when we're caring for patients.

Until next time, any last words regarding what we just talked about? No, other than the fact that thank you so much for having me on. I love talking about any and all this sort of these concepts and just letting people have an opportunity to, to create their own longevity space, right?

You don't have to have tons of money and you don't have to know everything about it. It's just going to your caregiver and say, Hey, I just want to find out more about myself.

And especially in some of the things we talked about today, that's where you start. And so that's a lot of fun. Excellent. Great. Well, thank you again so much.

Appreciate it. You got it. Thank you for watching and or listening to the Every Young Podcast. This podcast is for educational purposes only and is not intended to diagnose, treat, or cure any disease.

I'm Richard Hanley, a licensed and board certified physician associate, PAC, trained at Harvard Medical School and the USC Keck School of Medicine. And while I do hold two doctoral degrees, including the doctor of medicine and doctor of health science, I'm not a licensed physician.

I also hold a master's degree in healthcare quality and safety from the Harvard Medical School and bring over 30 years of clinical and executive leadership experience.

I continue to serve as an interviewer and admissions assessor for Harvard Medical School's Master of Science in Health Care Quality and Safety program.

That said, the views expressed herein are entirely my own and do not represent the official views of Harvard Medical School. Always consult your own health care provider before making any medical decisions.

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It tells the algorithm that I'm not just talking to myself. And feel free to share it with someone that you'd like to see at your 100th birthday party.

Remember, age is just a construct. Vitality is a choice. Stay ever young. Thanks. We'll see you next time.