Introduction and Kevin Ellisu2019s Bone Coach Mission

Welcome back. Today we are talking to my dear friend Kevin Ellis. Hi, Kevin. Laura, it's great to be here. I'm looking forward to this. I know. Me, too.

So let's introduce you to our audience. Kevin, you're known as the Bone Coach. You are a Forbes featured integrative health coach, podcaster, YouTuber and founder of Bone Coach Dotcom, which I find very important because for those of you viewing right now who don't know, I spent 15 years in the osteoporosis world in the Western medicine world, prescribing all the drugs.

Reading bone density tests. My world was osteoporosis for a long time. And what you're teaching at Bone Coach XCOM is the stuff that we missed in the Western medicine clinics.

And you're really helping people to solve their own problems. And this is this is personal to you because you were diagnosed with osteoporosis early in your thirties and you healed your body, made it your mission to share how you did it.

And now you have this whole dedicated platform to helping women with osteopenia and osteoporosis get clarity and confidence and improve their bone. And so welcome.

I'm I'm loving that. I'm going to have a conversation today about the importance of mitochondrial health and bone health, because I think it's not often connected.

Yeah, no, it's definitely not connected or definitely is connected. And it's it's such an important thing that a lot of people don't talk about. And bones are almost like the forgotten organ.

Right. We think a lot of times about our bones is just a structure that holds us up, that keeps us strong and walks us through life. And it does that stuff, too.

But it also is a living organ, right? It's endocrine tissue and it's got all these different, amazing things that we can get into today. Mm hmm. Yeah.

So let's jump into it, because we're gonna talk about the connection between mitochondria and bone health. We're going to talk about what happens to your bones when there is dysfunction in the mitochondria.

We'll talk about the things that everybody wants to know. Like, what should I be eating? What should I be doing in terms of exercise? What supplements should I start taking?

I promise we'll get into that too. But first, let's set the stage because foundationally, what is the connection between mitochondria and bone health?

What we have to have good mitochondrial function to support the cells that build and maintain healthy bones. So you've got these bone building, osteoblasts, these are the cells that build and form bone.

You've got bone resource being arsia class. These are the cells that that are breaking down bone. You've got Maya sites in the muscle, right? All of those things are important and they all are important in connection to mitochondria.

Also, if we have dysfunction in the mitochondria, that's going to actually impair osteogenesis, which is the formation of bone, that's going to increase acid class activity, those cells that break down bone and that's going to actually accelerate our bone loss.

So that's one of the reasons why mitochondria help bone health are very closely connected.

Mitochondria, Bone Cells, and Bone Quality

And this is an important topic to talk about. And so interesting because everybody I talk to is a different type of specialist, right? We've got a heart specialist on here, brain specialists, cancer specialists, gut specialists, toxins specialists, you name it.

We've got every kind of specialist and here we go, talking about how important mitochondria are for bones. So I think everyone's getting a clear message that mitochondria health is the foundation of health.

And this is why I'm so obsessed with it, because if you are on a quest to heal any problem in your body, you have to build energy through the mitochondria.

You have to have the mitochondria functioning well because they help communicate with every aspect, with every aspect of our healing. So can you go a little deeper?

I mean, there's lots of different directions we can go in here. But I'd love for you to talk about what happens to our bones when the mitochondria become dysfunctional.

I mean, obviously the risk for fracture, the risk for breaking a bone is going to go up. But unpack that a little bit more for us. What's happening? Yeah, so part of the reason for for anything connected to mitochondria in bones, if you've got issues there it's going to compromise energy metabolism that's going to have oxidative stress is going to contribute to stem cell dysfunction in the bone.

And the other reason is that if we had this accumulation of dysfunctional mitochondria, so if we aren't constant clearing out and cleaning out these damaged mitochondria through that process called mitophagy and keeping that cell healthy, we're going to have a hard time ensuring that we've got a healthy proliferation, differentiation and function of those bone cells, those osteoblasts, those associate class.

And when that happens, that can actually lead to the creation of bone. That's not as of good quality, right? It can actually compromise the structural integrity of your bones.

And this when we have this, when we have a reduction in bone density, a reduction in bone quality, that is actually going to increase our risk of fracture.

And, you know, for all the people that I talk to and I know this is one of the biggest concerns for the people that especially as they start to get older, maybe they've already seen this in their parents or their grandparents is they're worried about having fractures.

And, you know, those fractures being debilitating and life changing and changing the way they do things is creating pain. Those are all the things that we want to prevent.

Right. So we need to have healthy cells. We need to do what we we should be doing to optimize mitochondrial function and just to support our bone health in general.

You know, Kevin, I want to unpack something right now because you mentioned bone quality and bone density and this is a great moment to to do some myth breaking right now.

And so I'm putting on my osteoporosis specialist hat right now. So let's talk about quality and density, because what you just mentioned was that the bone quality can be affected.

Now, here's what I always teach people. Bone strength equals bone density plus bone quality. Bone density is what we measure on a bone density test. Watch those of you watching right now.

Many of you have had a bone density test. It's looking at the density of your bone. What it's not measuring is what Kevin just alluded to, which is bone quality.

That is the microarchitecture of your bone. You cannot see it on x ray. You have to look at bone under a microscope. So if you have poor bone quality, you can have osteoporosis in the presence of a normal bone density test.

So let me unpack that for a second. I think it's really important to go down this rabbit hole, Kevin, because this is why your program programs at Bone Coach dot com are so important.

So you're okay with me going down a little rabbit hole a little further here? Okay. Oh, let's do that. Okay, so if you have had a fracture, which is just the layman's term for broken bone, people always tell me I didn't break.

I fractured. It's the same thing. Everyone fractures the medical term. Break is the layman's term. So if you have broken or fractured, we use the term interchangeably.

Your wrist, your shoulder, your hip or a vertebrae in your spine. It doesn't matter what your bone density is. This means you have poor bone quality and you have a clinical diagnosis of osteoporosis.

Now, the one caveat I would say is if you broke or fractured from a low trauma or low impact. So we need to define that. Do you want to define low versus high impact, Kevin?

Yes, I mean, low. Sometimes it could be somebody that's just standing there hasn't really done anything. Maybe they've just fallen from regular height, fallen on the ground.

Fracture Risk, Bone Density, and Diagnostic Gaps

They had a fracture or an injury. That's not normal, right. That that would be a low trauma or fragility fracture and then high impact would be you're in a car, right?

You're in a car accident, you're riding a bike and it crashes and you land and you break your arm or something like that. In those situations, you may actually have had bones that were of decent density and quality, but the trauma from the impact of that actually is what created the break or the fracture. Yes.

So there is a big difference between those those things. Yes. So so let me I just have to add, so low trauma can mean that you're walking your dog and you trip on the crack in the sidewalk and fall on an outstretched hand and break your wrist.

That is a low trauma fracture. Your dog, your dog sees another dog and pulls you and you're in. It's running and you're now hurrying to keep up with the dog and you fall.

That's still a low trauma fracture. It literally has to be an impact, like a car accident, like getting accosted or mugged, like like falling off a ladder, like something that is a much higher.

So if you're fall a fall from a standing height or less meaning like you're sitting on a chair and fall off of that, that would be considered a fragility, low trauma, osteoporotic fracture.

So this is Kevin. Thank you. I just had to go down this because I cannot tell you the thousands and thousands and thousands of people that I have treated over years in my Western medicine career.

I can't tell you how many times people get this wrong and they try to convince me I don't have osteoporosis. You don't understand that fall was hard. I hear you.

Nobody falls on a bed of feathers. Every fall is hard. Every fall hurts every fracture hurts. But you didn't get in a car accident and you didn't fall off a six foot ladder and your bones shouldn't be broken.

And here's what's really interesting about this, too, is that the majority of people who have those fractures, they don't actually if you were to look at their bone density scans, they're not actually going to show as being in the osteoporosis range.

A lot of people have these low trauma fractures, but their bone density scores are in the osteopenia or normal range. I can tell you exactly how many 50%, 50% of people with a low trauma fracture are in the osteopenia or normal range.

Yeah, true. So why am I. Why am I hounding on this? Because in all the years that I spent in working in the osteoporosis world, not once, not once did we address mitochondrial health, cellular health.

We kind of shrugged our shoulders and said, Well, I don't know why you have poor bone quality. Are you on an anti-seizure medication or are you on a chemotherapy drug?

No. Well, not sure. Your labs check out normal. I don't know why you have bad bone quality, but take this drug. So we didn't look at solving the cellular problem.

So I'm so glad we're having this discussion. Yeah. No. And even at that time of diagnosis, so. So somebody goes and gets a bone density scan. They don't have the whole picture at that point in time.

So if you're sitting there right, and you received this diagnosis, you had your bone density scan and it's like, hey, you have osteoporosis, take some calcium, here's some vitamin D, go for a walk, take a bone drug.

We'll see you in a year or two for your next bone density scan. All right. That's woefully inadequate. Not going to be the right approach for so many people.

I'm part of that. And part of the reason why it's not the right approach for a lot of people is because you don't have all of the information you need at that time.

If you have one bone density scan, that's not enough to tell you what's going on inside your bones right now. Present day, right? You don't know if you're still actively losing bone right now.

There are tests you can look at called bone turnover markers that can help you understand that there is a C to low peptide tests, a serum sets and some blood tests that can look at the activity level of cells that are breaking down bone.

If that activity level is elevated and really high, even that could be an indicator of active bone loss. And like you're talking about a root cause issue that needs to be addressed.

So the first thing you wouldn't do in that situation if if you know that bone loss is really high, it's just jump right in and start with the medication.

You would probably try to seek to explore what is leading to that elevation first. Well, yes, but that's not how we do it in Western medicine. Do a couple of like we do a vitamin D and a calcium test.

I say we do. I don't work in Western medicine anymore. I'm fully in functional medicine. But what we did do, which, you know, I retired from that last year, but what we did do was a calcium and vitamin D level, sometimes a parathyroid level.

Look at some, you know, serum protein levels in the blood, look at your thyroid level, make sure your kidneys aren't in failure, then that's about it.

I mean, it wasn't any further investigation. Kevin Yeah, I would say at the bare minimum that that further investigation and this is so common for, for most people, they don't have a good workup done and they're missing a lot of important pieces.

So at a bare minimum, you, as the empowered, educated advocate for your health, you have the right to say, hey, look, I'd love to get more information right.

I'd love to get some more objective data. Can you help me with this? Say this to your doctor, like, can you help me with this? I'm not saying no, I'm just saying not yet.

Can you help me get more information and then ask for bone turnover markers, ask for if they want or them if they're like a general practitioner and they're like, well, I don't I wouldn't understand the interpretation.

These tests ask to be referred out to somebody who might understand that, which would be an endocrinologist maybe, or go to a naturopathy doctor or a functional medicine practitioner because they're more likely to have that knowledge about those the interpretation of those specific tests, 24 hour urine, calcium.

So it's not a it's not a bone turnover marker. It's not looking at the activity level of cells that build up and break down bone. But it is looking at calcium.

And the primary mineral constituent of your bones is calcium. So that is elevated. Then that could be one of the contributors to it and complete blood count.

Most people get that when they go when they go into their physicians comprehensive metabolic panel that's going to include your electrolytes. It's going to look at your kidney function, your liver function, you know, bilirubin, alkaline phosphatase.

So alkaline phosphatase specifically, if there is an elevation in alkaline phosphatase, you can actually pinpoint where that's actually coming from. There's something called bone specific alkaline phosphatase that you can investigate a little bit further and see if that elevation is coming from there.

You mentioned vitamin D. Vitamin D is obviously an important one. And then parathyroid, I heard you say, too, if somebody is looking at their parathyroid, you want to look at vitamin D parathyroid hormone, calcium serum calcium and ionized calcium all in the same drawer.

And you may have to have if you're really exploring that, you may have to have multiple drawers in a consecutive order to really understand if you have a parathyroid issue.

Yeah. So those are some of the big ones. And then celiac celiac disease, I would say too. Oh, for sure. And I would also add testosterone for men. There's another big one that gets missed and low testosterone levels can lead to osteoporosis.

So here's in the functional world, what else we should be looking at. And I'd love for you to unpack this, Kevin. What's the connection between gut health and bone health?

As a major, major connection? I would say the first one is related to nutrient absorption, right? So when somebody is taking in food, they're breaking it down into smaller pieces.

It makes its way into their digestive system and then it makes its way to the small intestine where you have these tiny little nutrient absorption centers called VILLI that are responsible for absorbing these nutrients, helping bring them into the body and shuttle them to where they're needed to be in the bloodstream.

So when those are damaged or blunted, like with celiac disease, for example, that's one of the things that happens when you have celiac disease and you have the autoimmune reaction to gluten.

Is those bely those nutrient absorption centers can become damaged and then they can't do their job and they can't absorb these nutrients. And your body still needs these nutrients to execute its daily functions.

So where is it going to go to get these nutrients? If you're not actually absorbing them, it's going to go to the largest

reserve of minerals that you have, which are your bones.

And calcium is a primary mineral constituent, like I said. So absorption is really important. But then also I would say another another connection here if we could even touch on how we tie to the immune system and then bring it back to the gut.

Also, is that inside your bones? I mentioned that they're living tissue, right? 95% of the blood cells in in a person's body, they they're produced from the bone marrow and they start out as stem cells and they become either platelets, red blood cells or white blood cells based on the conditions in somebody's body.

So if somebody needs help with clotting or preventing bleeding, right. That's where platelets are going to come in. If they need help with carrying oxygen to the body's tissues, carrying carbon dioxide away from the tissues back to the lungs.

Gut Health, Inflammation, and Nutrient Absorption

That's where red blood cells are going to come in if they need help with fighting infections, healing wounds, anything related to the immune system. That's where white blood cells come in.

Here's where it connects to bones is that the cells that break down bones are a form of white blood. Cell osteoclasts are a form of white blood cell. So anything stimulating the immune system or talking to the immune system is speaking in the same language as the cells that break down bone.

Now, where is 70% of your immune system reside? In your gut? In your gut, right. So if you have chronic digestive issues, that can actually be a source of inflammation, you could be stimulating the immune system and that could actually be increasing bone breakdown in your body.

So this reminds me of a patient I had years ago in the clinic that I worked in, and she she refused to take medication. So here I was, prescription pad.

This is way before my functional medicine journey started her a prescription pad in hand and she's like, I'm not taking that stuff. I don't want it. I said, okay, come back and see me.

We'll do another bone density test and and see how you're doing here in two years. And so she comes back in two years, does a bone density test, and everything's better, but bone density never gets better.

Kevin It never does. In the Western world, even with medication, I mean, you can still lose bone density on medication. I mean, if we stabilize it, great.

And so I'm scratching my head and I'm asking her, okay, what did you do? And she tells me about this thing called her gut microbiome and gut health, and that she went and saw a functional medicine doctor and she got her gut health all in shape and started fixing her digestion.

And she also did some other things like sleeping better and, you know, reducing stress and getting herself into more of a parasympathetic state. And I mean, she didn't do anything crazy like metal deletion or detox or any of that.

You know, a lot of people watching this interview in Summit right now, like that's the next step for them. Is that deeper functional medicine work? I mean, she did the foundational stuff, Kevin, and her bone density got better.

Now, I'm not saying everyone is going to achieve that same result for her. Clearly, her osteoporosis probably had something to do with nutrients not getting into her body.

And and I've seen it happen. I've seen people improve their situation. The other thing I want to share, you touched on that your bones are a huge, you know, storage tank for minerals.

And what I wanted to share here is folks like write this down, your body will rob Peter to pay Paul. Your body is so genius engineered that you will never run out of calcium as long as you live.

So calcium is needed for every cellular function in your body, including really important stuff like your heart beating. And if you don't get enough calcium or absorb enough calcium, you will rob Peter to pay Paul so that your heart beats every single day, day in and day out, so that every cell in your body works because you need calcium in every cell.

Look at me. Get off that soapbox. Hand it back to it. Passionate about this. That's so important. And again, like bones are calcium. Phosphorus is in your bones.

And when your body needs more of these things, it's going to they can release it back into the bloodstream. Right. And then also iron in the form of ferritin that can be found in the bone matrix.

You've even got specific growth factors like IGF one are they're housed in the bone and released periodically too. So bone is very much living tissue and I would say some of the other important things that people really don't connect with their bone health and other things would be you actually mentioned sleep, right?

People don't necessarily think, oh, you know, as I sleep, they may think that it affects their brain health or their muscles, but it's also impacting your bones.

That's when you're your your body's repairing and restoring these tissues. So that's so important. And it's pretty well-documented if you have poor sleep quality that's going to reduce your bone quality.

So yep. Okay. So I want to dig into bone coach dot com right now. So yeah, so transparently I can say it now because I don't work there anymore. But before I left my clinic job, I was referring people to you on the side.

I was like, so I wouldn't write it in their charts or do I did it on so on the down low and I say just go to bone coach dot com and so I was like literally funneling people to bone coach dot com because I believe in what you do over there.

So the kinds of things that people can learn there, let's unpack that because people want to know what what should they be eating for osteoporosis, what kind of movement and exercise should they be doing, what kind of stress reduction, reducing activities, what kind of supplements?

So let's give our audience some pearls here and let them know what they could expect if they went and just started learning from you. Because I want people to walk away from this interview with writing down some really top tips that they can do to support their bone health.

So go. Let's do it. Okay, so let's even start with the high level of if you were to go out and just create a plan, what are the foundational pieces that you have to put together for stronger bones?

Right. Let's even just start there. I touched on some of the tests earlier, but the first thing you have to do is you have to figure out you have to identify and address if you have those causes of bone loss and what those causes and contributing factors are.

You're already learning about some of that stuff here, but you need some of that objective data to help you figure that out. If you've got your bone density scan done, great.

Do you also have the bone quality part of that picture? A lot of people don't. You can get the bone quality part of the picture by getting what's called a TBS Trabecular Bone score.

Right. And this is an add on software to DEXA. And this can actually help you understand the fuller picture of bone density and bone quality and a more true picture of your bone strength.

Right. So that's that's kind of one of the first things. The next one is, are you actively losing bone use one of those bone turnover markers or a couple of them.

If you can get the bone break down side of the picture, the bone resorption side with a serum CT test or a CT yellow peptide is what it's called. Get that.

But then also look at the bone formation side too. There is a couple different markers there. P one NP is the most sensitive marker for bone formation.

That's pro collagen type one n-terminal pro peptide say that five times faster.

Nutrition for Stronger Bones

So I want to share. I want to share too on that Helio peptide. They can do in Helio peptide as well. So some health organizations will not offer you the serum and so you can do the urine as a backup, although the serum is would be the gold standard.

So try to let people know there is a urine test as well. Totally. There's a urine now also and yellow peptide test. You would do the second catch of the day, wouldn't be the first urine, do the second catch of the day.

And by the way, when you're getting these labs again first thing in the morning while you're fasted and be consistent with them, because there are variations, especially in bone turnover markers by when you're consuming food by the time a day.

So it's important to make sure you get them when you repeat them at the same time of day. And then get some of those other labs that I talked about earlier.

I won't go too far to that. But understand just in general know that you have the right you have the right to say, hey, I respect your opinion. I respect that this is what you're suggesting here.

But I would like to get more information. It's not that you're necessarily going to say no to them or that you shouldn't take their opinion into consideration, but just know that you have options and do.

And then also the next thing that you want to do is you want to make sure you're getting your body, the nutrients that actually needs to build and maintain stronger, healthier bones.

So part of it is taking in the right nutrients, in the right amounts, actually absorbing those nutrients and those nutrients, making it to the cell level.

Some of the nutrients that I love to see in a plan. I know we were just talking about this right before we hopped on here. Right. Which is like, what are the most important nutrients for your health and for your bones?

Most people are told calcium and vitamin D there are a lot more nutrients that can be really helpful and supportive for your bones. Are those important?

Yes. I think most people really understand vitamin D is important. Calcium is important. Beyond that, vitamin K is really important, K one and K two. Those are there's many different forms of vitamin K, but K two, that is probably the most important one for bone health.

K one can be converted to k two, but it's not going to be as efficient. And K two is what's going to help aid in bone mineralization. It activates something called Osteo Carlsson and then it also activates something called matrix GLA protein, which is going to help prevent the calcium from going to places like your soft tissues, like your kidney and kidneys and your arteries and things like that.

The dietary sources of that would be if you're looking at K one, it would be dark green veggies, asparagus, kale,

broccoli, chard, those kinds of things.

K two is more MK four version of K two would be more of your animal based products. So beef, liver grass-fed fed butter, dark meat, chicken pastured egg yolks.

Even still, those are it's not really the highest amounts of those nutrients. And then K-2 and K seven, that's where you would be. You could get that from hard cheeses.

You could get that from fermented foods, you can get it from sauerkraut, kimchi. Natto is actually the biggest thing that. You're literally describing a gut healing diet right now.

Just say, yeah. Interesting, interesting. And that bacterial fermentation in our guts. Right that can actually we can actually help produce the microbes in our gut can actually help produce some of these nutrients that we need for us.

So it's really amazing. Like the body wants to heal itself. You just have to give it the inputs that it needs. And the fascinating thing is nowhere in here did you say you must drink three glasses of milk per day?

You know, I probably wouldn't advise that, especially because and you know this too, like especially because dairy can be a really big challenge for a lot of people, especially if they have multiple have health issues that could have contributed to the bone loss and osteoporosis.

And that's why they're here in the first place. They could still have an autoimmune condition, right? They could still be they could react to dairy. They could have a bunch of other issues that prevent them from getting that.

And so we have to look at other good sources of calcium, too. If you can tolerate cultured and fermented dairy grape it, but it's probably not going to be the only thing that you're consuming.

So sardines, mackerel. I just have to stop on the sardine thing for a second. This is an ongoing thing that Kevin and I talk about because we both travel a lot in our in our work, in our businesses.

And Kevin travels with sardines and he just instead of eating in restaurants and stuff because he has celiac. And so that's his hero story and that he figured out his own osteoporosis situation because celiac disease is what really destroyed your bones.

And so you don't take any chances when you're traveling. You travel with sardines. And I am so jealous because I just cannot stomach them. They are one of those healthy foods.

But I just I just can't do it. So. Oh, I wish it's such a good, healthy thing to travel for me. For me. And like, it was easier for me to just when I was diagnosed with celiac disease and especially because I was in the Marine Corps before that, I was able to view food as like separate the need for food in my life, as like the thing that fulfilled me.

I saw food as just sustenance. Right. Let me get the nutrients I need. I don't need to actually have an experience with this. So I was able to pull that kind of pull those two things apart.

Yeah. And that actually got me to the point where I, I didn't really care if all I had was a can of sardines or to Kansas sardines. That's great. From a physical health perspective that turned out to work.

Okay. But in terms of, you know, enjoying your meals and what's actually realistic for most people, right. You're probably I would say if you got a can of sardines or mackerel, go get some primal kitchen dressing, drizzle it on top of their.

Most people aren't going to eat them plain and you can eat them like that. And actually taste pretty good for the normal person to not just, you know, not just the crazy Marine.

So you could do that, too. And the reason we both like these these fish is because they contain protein. You need protein for your muscles. You need protein for your bones.

You actually need protein for just about everything. So you got to be eating protein and you want to get trying to get at least 30 grams of protein per meal.

That would be a good target. Minimum. If you have a little bit more in the mornings, that's great too. Or per meal. That's great too as insurance. And then the other reason that I like sardines and mackerel is that they've got all the nutrients.

If you get the bones in, they've got all the nutrients that your bones need in the right ratios that nature put them in. So that's great. And then you've got omega threes and omega threes are dampeners of inflammation.

They're, they're great. There's just got to be some other way to eat sardines, like a sardine casserole or something. So viewers, if you are listening and you have a way to eat sardines, that does not would not gross me out email me.

We have recipes we have recipes on there. So we we put them on YouTube. I'm bone coach. Bone coach you tube. Look that up. Okay. We've got. Logos. We've got avocado sardine salad cups.

Okay. All right.

Exercise, Resistance Training, and Bone Coach Resources

We've got sardine paté and we a zesty sardine paté and we have there's another one that's on YouTube right now. They're free. Long logo. That's amazing. Okay, so sorry.

I just have to go down these fun rabbit holes because these are the things that I know about you that I have to reveal for sure, our people. Okay, so real quick, I mean, we could go on and on and on.

Can you can you cover real quick about exercise? And then and then I'm going to make sure everybody knows how to get connected with you, get more information, get involved with bone coach at a bare minimum.

Go sign up for our newsletter because he emails all kinds of cool stuff out. Yeah, appreciate that. And yes, that's an it's a free newsletter too, so and a lot of great information.

So let's talk about exercise for a minute. So exercise is super, super important for bone health. You can do all the stuff we talked about earlier. You can get the testing, you can get the objective information, hey, here's where I'm at.

You can take in these nutrients, you can fix your gut health. If you do not provide the stimulus that your body and your bones need to become stronger, they're not going to become stronger.

Right. And it may even be really hard to maintain what you currently have as well. So the standard recommendation normally just, hey, do some walking, do some weight bearing exercise.

Yes. If you're currently walking, that's great. You keep walking. It's going to be good for your health. You should keep doing that. But just know walking by itself is not going to be enough.

I'll say that again for the people on the back. Walking is not enough to improve your bone density. You sound like a marine right there. You got me in that mode.

Yeah. So walking is not going to be enough. So you need weight bearing exercise and that's what walking is a form of. And this would also include things like your running, your hiking, your jogging, your dancing, your gardening, playing with the kids, the grandkids.

Those kinds of things are all weight bearing. And then there's also Pilates, yoga, tai chi. Those are also weight bearing, those kind of exercises. If you're doing non weight bearing exercise, you got to be aware of this too.

This would be cycling and especially swimming. Oh, I can't tell you how many marathon cyclists I saw with broken bones over my ears. Their bones, they're not getting weight bearing.

They're actually the bike is holding their weight. Yeah. Not so they're not so you have to when you are doing weight bearing exercise, it's putting the stress on the bones and it's a healthy stress and that's helping keep your body upright when you're doing swimming.

Right. You're in an anti gravity environment. You don't have your body and bones working against gravity. This is the same thing astronauts deal with in space, and that's why they lose a significant amount of bone density in very short periods of time.

They have to combat against that. So just be aware that if you're doing these things like your cycling or your swimming, don't just count as your only form of exercise.

Like if it reduces your stress rate, keep doing it, don't overdo it, but keep doing it. But then also we need to incorporate next form of exercise, which is resistance training.

You must have this as part of your plan and this would be where you are. You're using maybe resistance bands or that the machines at the gym were a barbell or dumbbells or something like that.

And you're actually doing these exercise as you're doing some sets and repetitions, the movements that are working the most muscle groups at once, a lot of times like squats, deadlifts, overhead presses, I'll put an asterisk on overhead presses, like if you've already had a vertebral fracture, right, and you got to be a little more careful if you're considering that, you've got to have somebody make sure that you're at a point where you could do that or don't do that.

And then, you know, Chin ups with drop landings get a little bit impact in there. Again, make sure you're doing the right things. You can work with somebody to check out your body mechanics to make sure you're doing the right things before you jump into an exercise plan.

If those things sound intimidating to you, as I just listed them off, work with somebody to help you slowly progress up. Don't just start as hard as you can, as fast as you can be, one that can lead to injury for everybody.

So work with somebody to kind of guide you through what you need to do. This has been amazing. Kevin I'm sure people viewing this, make sure that you go back and listen to this again and take notes and star this interview because there's so much knowledge bomb, so many knowledge bombs dropped on you in here.

It's so Kevin. I know we can find you a bone coach dot com not the bone coach dot com bone coach dot com. Right. I'm coach si.com. Yeah. Okay, that's okay. Nice place.

Yeah. What what kinds of things can people expect to experience at Bone Coach dot com. Well, if you go to bankrate.com, we've got free recipes. We have a free newsletter.

If you already know you have osteoporosis or you know someone who has osteoporosis, number one, you should share this with them. Tell them to pay attention to this episode specifically and then also share this share bone coach dot com with them because we have a free osteoporosis kickstart guide that walks you through everything you need to do to get started on your journey to stronger bones.

And then we have programs that actually help people improve their bone density, build their bone strength, prevent more bone loss. And these programs have run for years and have over 5000 people that have come through them.

So it's many, many people so amazing. I want to thank you so much, Kevin. On a personal personal level, I mean, I

spent many, many years in the Bone World and I wish I had a resource like you from the beginning when I was helping people and I was doing the best I could with the knowledge I had at the time, and had I known better, I would have done better.

And so thank you for what you've created because it is impactful and help you're helping so many people. On another level, thank you for your service to our country.

As a retired marine and on a on a really personal level. Thank you for being such a good friend. I mean, I am privileged to know you personally and I see the kind of father you are and I see the kind of friend you are and the kind of support you are to everyone in our community in the functional medicine and integrative medicine space.

And I just want to thank you. You've left an enormous legacy already and you're just barely getting started. So thank you. Laura. That was so nice. That was you almost got me here.

I was so nice. And I really appreciate the opportunity to share with your people. And I love all the work that you're doing and I love you're just helping so many people with this, this.

And I if you're listening to this, make sure you're sticking around with Laura for a long period of time and get the whatever the downloads, the resources are.

Make sure you get those, too. Yeah. Yeah. Thanks, Kevin. You take good care. Bye.