Introduction and guest background

This is Doctor Talks, real talk from real doctors on the issues that matter to you most. Welcome to the MS in Neuromune Summit. I'm here with my friend and colleague, Kevin Ellis.

Let me introduce him. Kevin is better known as the Bone Coach. He's a Forbes featured integrative health coach, podcaster, and is founder of bonecoach.com.

He has a unique three-step process in a world-class coaching program called Stronger Bones. And he and his team have helped thousands of people with osteopenia and osteoporosis in over 1,500 cities around the globe get confident with their Stronger Bones plan.

His mission, like mine, is to help millions of people around the globe. And he focuses on osteoporosis and osteopenia. Kevin, welcome. Dr. Terry Walls, thank you so much for having me.

I'm glad to be here. And it's such an important topic to talk about to our bones. You know, many people with multiple sclerosis in neuroimmune conditions, we've taken many rounds of steroids, myself included, and we are aware that we have osteopenia, osteoporosis, What I think would be super helpful is just to launch our conversation with a success story.

Yeah, of course. And I, the first thing I'll point out is it is possible to build bone and it is possible to build bone without medication. And it's also possible to prevent bone loss that's taking place or to slow it or stop it or stabilize.

There's like a spectrum of improvement that can take place. We have a lot of success stories with people that have come through the stronger bone solution program, our program for it, that have actually gone on to improve their bone density.

improve their bone quality and improve their bone strength.

Success story and bone improvement

One story that stands out, a woman named Pamela came to us and she was very much stressed, worried, confused, overwhelmed, trying to make sense of the diagnosis.

She wanted a plan. She wanted to be confident she was doing the right things, not missing important pieces. So we helped her figure out some of the contributing factors to that bone loss and osteoporosis.

We helped her work through some of the gut health and nutrient absorption issues, focus on dialing in the right exercise plan. And then we actually got her to a point where we could monitor some markers, some bone turnover markers, which are great.

It's always good to look at markers and have some objective data. And then longer term lagging indicators, we could see improvements in bone density. And we saw an improvement in especially the lumbar spine going from negative 3.5 to a negative 3.1 in just over a year's time.

And that's, that's a great, that's great improvement to see in somebody, especially if your doctor is telling you, you can't make improvements. It's, it's really hard to do that, or you can't do it if you don't take a certain medication.

It's great to know that there are things that you can do. You don't always have to include the medication. And I'm not here to tell you, you shouldn't take it because sometimes it does make sense, but there are a lot of things that you can do outside of that too.

And I think it's important when you realize that you start to implement, you can improve. Okay, very positive. You know, and I want to reinforce that I had a severe osteopenia as well.

And every time I go in to get my bone density, it keeps getting stronger and stronger and stronger. Although I am continuing to get older and older, but my bones are getting better and better as I go.

So, and you have a bone story. I'm going to invite you to tell us your story. Yeah, of course. Because most people, when they're talking about bones, you're not typically talking about the younger male.

But for me, my own journey in coaching and leading people with osteoporosis and running these programs now, it all started with my own diagnosis of osteoporosis right around 30 years old.

And I had a lot of chronic digestive issues, issues with nutrient absorption. I was diagnosed with celiac disease. I had been malabsorbing nutrients for many years.

and my body needed those nutrients to execute its daily functions. It needed the calcium for muscle contractions and nerve impulses, but because I had celiac disease, And my villi, these tiny little nutrient absorption centers that are responsible for absorbing the nutrients, they were blunted and damaged.

They couldn't do their job. So my body went to the largest reserve of minerals I had, my bones, it pulled from there. That led to bone loss and a subsequent diagnosis of osteoporosis.

And that launched me down this path of, number one, what do I do for me so that I could be there for my kids and my family in the future? And number two, after I learn these things from me and I make improvements in my own health, my own bones, how can I then go and teach and serve other people?

And I think that really is a starting point for a lot of people who end up in the health space and being leaders and want to serve others.

Kevin's osteoporosis journey

And because they know that place, they don't want other people to be in that place too. And they wanna reach a hand back and help pull them up. And it really does remind me of one of my own core values that we have at BoneCoach, which is community.

As we rise, bring others with us. And I think that is so important for people who get to a point where they're improving their own health. that you then reach back and become the shepherd for the other people in your lives too.

Let's talk about osteoporosis and osteopenia. What are they and can you help people know those terms? Yeah, of course. Let's start with let's just start with our bones in general, which would be when most people think of their bones, they just think of their bones as these static structures that hold us up right and carry us through life.

They do that. They do a really good job of it, but that's not all that they do. But when we have issues with our bones, and we have either bone, excessive bone loss, a lack of bone formation or a combination of the two of those things.

we can end up with osteopenia or osteoporosis. So osteoporosis means porous bone. Osteopenia is like a precursor to osteoporosis. We would call it low bone mass.

And that's just, you've gone, you've gotten a bone density scan, and then it gives you a score and the score tells you, helps you understand what the classification is.

So if you have a minus 1 to minus 2.5 score from that scan, that's going to be considered osteopenia. If you have a minus 2.5 or lower, minus 2.6, so on and so forth, that's considered osteoporosis.

The greater the negative number becomes, the more severe the osteoporosis. I always encourage people, if you don't have the data point of a bone density scan, go get it.

That way you understand where you're at. So you can start to address these things. But it's also important to understand bone density is not the only important data point.

It's only part of the picture. So bone density, that's the actual mineral content of the bone. Bone quality is the structural integrity of the bone, the microarchitecture, how the bone is organized.

Those things combine to create bone strength. So that helps you get the full picture when you have bone quality. There's actually an add-on software to the bone density scan called TBS, trabecular bone score.

You can call the facility ahead of time and just ask them, Hey, does your bone density scan have TBS capability? If they do, you can get a measure of bone density and a measure of bone quality at the same time.

Understanding osteopenia and osteoporosis

If they don't, there's another technology that is more prevalent in Europe. It's making its way in the U S now, but it's called echo light. And it uses a technology called REMS.

And this REMS technology, it uses ultrasound to help you understand your bone density, your bone quality, and a five-year fragility score, which is like a predictor of fracture.

So there are ways to find out that full bone density, bone quality picture. And then the other piece, this is the last one to kind of button that up, is the other piece of data most people don't have when they get their bone density, is they don't understand, am I still actively losing bone right now, present day?

And if you're not sure, especially if you've only had one bone density scan, you don't know if you're still losing bone. So you can get bone turnover markers.

And these markers look at the activity level of cells that are breaking down and building up your bones. So if you have the most sensitive marker for bone resorption is called CTX, CT low peptide test.

That's a blood test. That's going to look at bone breakdown, bone resorption. Okay, if that's really high or elevated, that can be an indicator that you are actively losing bone right now.

And there's some root cause issue or issues underlying that bone loss that need to be addressed. And then the other side of that is bone formation, bone formation markers.

The most sensitive marker for bone formation is P1NP, pro-collagen type 1 and terminal pro-peptide. When we look at bone resorption, we also look at bone formation.

And these are like leading indicators that you can monitor every three to six months to help you understand if you're moving in the right direction come the next time for your bone density scan.

So these bone markers, could I just go to my primary care doc and say, I'm looking for, can we get the bone markers of turnover in bone building? Great question.

When you are going to your general practitioner or your primary care physician, they may not actually order those tests because if a physician doesn't understand the interpretation of the test, they might not actually order it.

They may refer you out to a specialist. So for bones, the specialist they would refer you out to, at least in the conventional setting, would be an endocrinologist or rheumatologist.

So you may already have relationships established with these physicians. If you do, you can open the dialogue with

those physicians. So if you can't make progress with the GP or the primary care, you can open a dialogue with an endocrinologist, rheumatologist, or you could completely go outside of them to get the tests ordered outside through third parties.

You can do that as well. And so if you decide you want to order it through an outside third party, how would that happen? You can, you can find different sources.

Like if you go to a functional medicine practitioner, for example, and you ask that functional medicine practitioner, Hey, can you get these CTX, the P1NP, you know, we help people get those ordered to and help them understand where to get them and what to do about them.

But you get those tests ordered. and then you get a requisition. Oftentimes you can go to like a lab core request or something like that, get the test done, then the results come back to you and you can see that.

So you went, you might have gone outside of the conventional doctor to get those, but you can also go through them too. So you really have multiple options to get those tests.

Okay. So I think I heard you encourage everyone who's listening get at least a baseline assessment of bone density and whatever of these additional markers we can have for your overall bone health, bone turnover and bone building activity.

Yep, that's right. So as soon as you're diagnosed, I do think that is super helpful because many of you will have either seen your activity levels go down or that you've been taking steroids.

So what can I shift a little bit and talk about the nutritional requirements for bone? Because we're all taught we need lots and lots of dairy to make our bones.

So what is the diet that we need for our bones? Well, it's very similar to the diet that you're recommending also, which is we want to have good, healthy, lean proteins.

Bone markers and testing options

We want to be getting vegetables. We want to be getting good, healthy fruits, and we want to be getting good, healthy fat sources as well. So an anti-inflammatory diet, good, healthy proteins.

Yes, we can and should incorporate animal proteins into that diet. And then some of the things that I think are a challenge for people, especially when they have an autoimmune condition, is they're like, okay, I know calcium is important for my bones.

It's the primary mineral constituent. But If I'm not eating dairy, where can I get calcium? Well, there are lots of good sources. A couple of the ones that I like.

I like smaller fish that have the bones in. So sardines or mackerel or wild sockeye salmon or pink salmon or something with the bones in. And you just find them in a BPA free can.

and you can actually get the bones that are in the right ratios that nature put them in. All the minerals and nutrients and cofactors, they're already in those little fish.

So if you can't eat something like dairy and you're still trying to get a good food-based source of calcium, that's a fantastic one to incorporate. And it also has protein.

So protein breaks down to amino acids. Amino acids are the building blocks for the things in your body, including your muscles and your bones, which are really important.

Your bones are 50% protein by volume. So they need amino acids, not just to maintain their structure, but also if

you wanna build that structure too, you gotta have protein.

You can't just have the calcium and the vitamin D because if you don't have the protein structure to hang those minerals on, then it's not gonna do you much good.

So we have to have good, healthy protein in the diet. Another reason why I like those fish is they have omega-3s. Omega-3s are dampeners of inflammation, which is really important to keep in check and under control too.

I really like arugula. It's a good plant-based source of calcium with bioavailable calcium, and it's a low oxalate green. Oxalates are an anti-nutrient that can bind up those bone healthy minerals like calcium.

So if you are having issues with maybe you've got a lot of joint pain, you've got chronic digestive issues, or you just feel better when you're not having high oxalate foods, making that swap for arugula can be really, really helpful.

And it's not to say that foods that have oxalate in them are bad foods because they're not, right? But sometimes you just have to know how you respond and react to things personally.

And sometimes making these swaps can be really, really beneficial. And then let's talk about some healthy fats. which if you're bringing into your diet a good quality extra virgin olive oil, and not necessarily the stuff right off the shelf, but if you get good quality extra virgin olive oil with great polyphenol content, that can be a great addition.

If you are incorporating things like grass-fed ghee, or butter, those can be good additions. And then also coconut oil too. Extra virgin coconut oil can be a great, or virgin coconut oil can be a great addition as well.

So those are some good healthy fats that we can bring into the diet too. And then I love berries. Berries are great because they're, I think a lot of people know vitamin C is important, but it's so important for your bones too.

So your skeleton, your bone structure, I said, it's 50% protein by volume. Well, that structure, it's a collagen protein matrix structure. Vitamin C stimulates pro-collagen and enhances collagen synthesis.

So you need vitamin C to develop and maintain a healthy skeleton. And if you don't get enough vitamin C, then longer term that could be increasing the risk of fracture and potential bone loss as well.

Nutrition for stronger bones

So what's a great source of food-based source of vitamin C? Good quality berries. So if what's accessible to you in the store, is the the berries that are right there the blueberries you know the raspberries the blackberries all those great include those in the plan try to get them organic because they are one of the foods that have the highest pesticide herbicides but If you are able to go outside of what's there, you can get good quality frozen huckleberries, lingonberries, aronia berries, a variety of them that are frozen that have even higher vitamin C levels and a lot of other good beneficial things in them.

So I really am a fan of berries if you can incorporate them. Let's talk about the exercises. What are the exercises that are good for our bones? Well, you need a couple different types of stimuli for your bones.

You need muscle pulling on bone and you need impact. And the most effective interventions use one of those things or both of them in combination. Most people are just told to go for a walk.

And I will tell you right now, walking itself is great. It's great for your health. You should be doing it, but it's not enough for your bones. So we need to incorporate other forms of exercise.

So we need weight bearing exercise. We need to be mindful of non weight bearing exercise. And we need to incorporate resistance training and muscle strengthening exercise.

So let me walk through each of those and break each one down what's under each. So weight bearing exercise

would be exercises that your body and your bones have to work against gravity to keep you upright.

They are things that you're doing on your feet. And when you're doing them on your feet, they're placing good, healthy stress on your bones. So we want to incorporate weight-bearing exercise.

This would be things like walking, walking falls in that category, hiking, jogging, gardening. playing with the kids or the grandkids out in the yard, pickleball, yoga, Pilates, Tai Chi, Shigong, all of those things are considered weight-bearing exercise.

Those are fantastic additions to your plan. So if you're doing them, continue to do them. That's great. Now, if you have osteoporosis, there are some modifications that you would want to make for certain forms of those exercises.

especially being conscious of rounding of the spine and lifting heavier weights, those two things would be really important to just pay attention to. Then non-weight-bearing exercise, we want to be aware of this.

For those that are having a little bit more of a sedentary life or maybe they have high levels of fatigue or less activity levels than they used to, which I know can be with MS, that can be something that's taking place.

We just wanna be aware that the non-weight-bearing activity, we have to counterbalance that when we can. So making sure you got that weight-bearing is important, but also being aware of these two forms of non-weight-bearing exercise, swimming and cycling.

So if you're considering those as your only forms of exercise, it's just not going to be enough. We have to incorporate another form of exercise, which is resistance training, because when you are non weight bearing your body and your bones, they're not placing that good, healthy stress.

And astronauts face this issue when they go up into space. and they lose bone density quickly because they don't have that healthy stress on the bones.

They have to actively work to protect their bones in that environment. So what's the other way to do that? That's where we bring in resistance training and muscle strengthening exercise.

So this would be things like the barbells, the dumbbells, the machines at the gym, if that's where your comfort level is at, or one of the things that I really like, I really like resistance bands.

Variable resistance is fantastic. And you can incorporate different types, a variety of different types of exercises. Some of the ones that are really good for your bones would be squats, deadlifts, overhead presses.

Those can be good additions. And you don't have to start really heavy or if you were to go like Google that or look it up and you see somebody lifting really heavy weight, that doesn't have to be you.

Right. We always encourage people start where you are with what you know. Don't try to go heavy from the start. Get your body mechanics down. Right. Address any pain or underlying issues that you might have, because those can compromise your body mechanics.

and slowly progress up to where you're providing the stimulus your body and your bones need. The last thing we want when we're trying to improve our health or get our muscles stronger or get our bones stronger is to have an injury or a fracture or a setback because we were just trying to move quickly and, you know, lift heavy weight.

We don't want that to happen. So those are just some good foundational things to begin to incorporate into that exercise plan. I'm going to ask about another strategy.

Any of the vibration plate exercises. Where might that fit in? Yeah, those can be great additions and compliments to a plan, especially for somebody who, you know, if you've already had injuries or you're just trying to get an additional stimulus because the primary form of exercise may be a little bit harder, for example.

So this could be a compliment that you add later on. There's whole body vibration devices.

Exercise, resistance training, and vibration plates

This would be like, The power plate, those have shown to have a small effect on bone density, but it's not that those should not be considered to be a replacement for a good exercise and workout routine.

There's also low intensity vibration devices. So like Meridine, Juvent, those are a couple. Those are great for muscle strength balance. They could be beneficial for bone.

Sometimes those devices are cost prohibitive for some people too. So you just have to think about what's realistic for your situation. What's realistic for your plan.

I always encourage people start with the foundational exercise plan first. And then start to add in the complimentary additional things, the vibration plates, the eugenic loading sessions, you know, any of the other complimentary things after you get the foundational stuff in place.

Absolutely. Now, if I get the news that I have osteopenia, osteoporosis, am I definitely going to get a fracture? Great question. Because this is a concern for most people is when they get that diagnosis, they go and they look up on the internet, what is osteoporosis?

And it basically tells the story that fractures are the future and medication dependence is the only way. And that doesn't have to be the case. A fracture is not fate.

Just because you have osteoporosis or osteopenia, There are things that you can do to protect your bones, to preserve them, to strengthen them, to move them in the right direction and monitor that over time.

You don't have to guess, you don't have to hope, you don't have to live in fear. Now, I will say, is fracture a possibility? Of course it is, but it doesn't have to be, that doesn't have to be the story, right?

So, and there are a lot of things that play into that too. A person's bone density level, their bone quality, and Do they decide to make the change to move in a positive direction?

You know, another thing that I stress to my patients is balance training and exercise. So falling is the risk. And so I don't want you to fall and an important strategy to reduce fall is balanced training.

So you can talk to your physical therapist, occupational therapist, and ask for some recommendations for a balanced training program. Absolutely. Balance is fantastic.

So important. Now, what does a stronger bones plan look like, Kevin? If we are really focused on getting to the root cause issues, getting the right diet and nutrition in place, getting the exercise plan in place, and getting to the point where we're building stronger bones, you have to incorporate three major pieces.

The first is identifying and addressing the root cause issues behind that loss. Get your baseline measurements. Understand where you are. If you have osteopenia or osteoporosis, understand.

Look at those bone resorption markers. Are you still actively losing bone right now? If you are, Then we do more lab work, more blood work. We look at what are the things contributing to that bone loss and we address them.

We don't make assumptions. We make objective decisions. So figuring out what's at the root issues of the bone loss, then focusing on addressing those underlying issues.

then monitoring those bone turnover markers, seeing improvements in three to six months in those markers, and then looking at the longer term lagging indicators every year, year and a half, two years.

Okay, so starting with the root cause issues, looking at objective markers, that can be a fantastic starting point. The next part or piece that we have to incorporate is you have to have good diet, good nutrition, good gut health, good nutrient absorption.

you can take in all the right nutrients and all the right minerals and all the great foods that Dr. Terry and I talk about, but if you're not actually absorbing those nutrients, then your body and your bones are not gonna have them to rebuild what they need.

And the other big connection between your gut health nutrient absorption and your bones is that I mentioned earlier, your bones are living tissue. And they're not just these static structures.

And inside them, you have bone marrow. And bone marrow produces 95% of the blood cells in your body. And if you need help with preventing bleeding and clotting, that's where platelets are going to come in.

Fracture risk, balance, and the stronger bones plan

If you need help with carrying oxygen to the body's tissues, carrying carbon dioxide away from the tissues back to the lungs, red blood cells are going to help with that.

If you need help with fighting infections, healing wounds, or anything related to the immune system, that's where white blood cells come in. Well, the cells that break down bone are a form of white blood cell.

So anything that's stimulating that immune system is speaking in the same language as the cells that break down bone. Where does 70% of your immune system reside?

In your gut. Right. So if we have digestive issues that are unresolved, it's not just a matter of are we absorbing those nutrients. It's are those digestive issues stimulating that immune system speaking in the same language as the cells that break down your bone and leading to more bone loss.

So there's a big connection there that most people aren't familiar with. So we got to address those gut health issues so we can get the better nutrients and better immune system health.

And then the last part is now we got to build. We've nourished our body. We're nourishing our body. Now we got to build the strength and we have to reduce our stress.

We got to improve our sleep. We got to get the right exercise plan in place, optimize hormones, make sure those are where they need to be. And that is what's going to really help us move the needle on improving our bone density, our bone quality, our bone strength, and just leading a good healthy life in the future.

This is marvelous. Again, so everyone who's listening here, we are definitely at risk for losing bone. and marching towards osteopenia. But there are so many things that Kevin has just told us, empowered us, that there's a lot that you can do to make sure that your bones are strong in getting stronger as opposed to weak and getting weaker.

Now, Kevin, can you tell our listeners where they can find you? I'd be happy to. Thank you so much. And for everybody listening, number one, if you have osteopenia, osteoporosis, or you know somebody who has osteoporosis too, tell them to go to bonecoach.com.

Great resources there to help support you on your stronger bones journey. And we have our stronger bone solution program there too that you can apply for.

We've had over 10,000 people come through that program, credentialed team of people that just help support you along your way, right? So you get the right plan in place and you address some of the nuances that come with, as you're dealing with any kind of stronger bones journey or health journey, you can get the help that you need.

So bonecoach.com is always the best place and you can find our Bone Coach podcast out there, which Dr. Terry,

you're on there as well. We should probably have you back to have another one.

We should have you come back, yeah. I should. And tell us, do you have an Instagram social media following as well? I do. I've got Instagram bone coach, Kevin, and you can find on all the social channels at bone coach, bonecoach.com.

That's the best one.

Where to find Bone Coach

Okay. Thank you so much for being part of the MS and neuroimmune summit. Thanks for having me. Thank you for tuning in to Doctor Talks. We hope today's episode has enlightened and inspired you on your path to optimal health.

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