Introduction and guest background

Welcome to the MS and Neuroimmune 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 is founder of BoneCoach.com. He has a unique three step process and a world class coaching program called Stronger Bones.

and he and his team have helped thousands of people with osteopenia and osteoporosis in over 1500 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 Wahls, 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, what I, I 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 is 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.

Kevin's bone health origin story

Our Program for it that have actually gone on to improve their bone density, improve their bone quality, and improve their bone strength. 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 to 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 -3.5 to a -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 to.

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, severe osteopenia as well.

And, you know, every time I go in to get my bone density 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, I guess 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, I was had a lot of chronic digestive issues, issues with nutrient absorption.

I, I was diagnosed with celiac disease. I had been absorbing 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, 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 learned these things for 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. And because they they know that place, they don't want other people to be in that place, too, and they want to reach a hand back and help pull them up.

And, it it really does remind me of one of my own core values that we have at Bone Coach, which is community. As we rise, bring others with us.

Understanding osteopenia and osteoporosis

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. To, let's, let's talk about osteoporosis and osteopenia.

What are they in? 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 the 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 it helps you understand what the classification is. So if you have a -1 to -2.5 score from that scan, that's going to be considered osteopenia.

If you have a -2.5 or lower, -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, a bit 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 is 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. If they don't, there's another technology that is more prevalent in Europe.

It's making its way in the US now, but it's called Echo Lite and it uses a technology called Rems. And this Rems technology, it uses ultrasound to get help, 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 CT 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.

Nutrition for stronger bones

The most sensitive marker for bone formation is p one and p Pro collagen type one and terminal Pro peptides. So when we look at bone resorption we also look at bone formation.

And these are like leading indicators that you can monitor every 3 to 6 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 specialists 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 dialog with those physicians. So if you can't make progress with the GP or the primary care, you can open a dialog 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 CT, the P1, NP, 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. And oftentimes you can go to like a lab call or 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. Yeah, at least a baseline assessment of bone density and whatever of these additional markers we 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, you know, we're all taught we need lots and lots of dairy, to make our bones.

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

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, 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 and 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 the right ratios that nature put them, and 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 in 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 want to 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 going to do you much good, right?

So we have to have good healthy protein in the diet. another reason why I like those fish is they have omega threes. Omega threes 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 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, if you're bringing into your diet and good quality extra virgin olive oil, 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, which or butter those can be, those can be good additions. And then also coconut oil to extra virgin coconut oil can be a great for virgin coconut oil can be a great addition as well.

So those are some good healthy fats that we can bring into the diet to.

Exercise, vibration, and fracture risk

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 to so your skeleton, your 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.

So what what's a great source of food based source of vitamin C? Good quality berries. So if 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 a more 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 and, around the 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 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 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, qigong, 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 and then non weight bearing exercise. We want to be aware of this. Right. So for those that are having more a little bit more of a sedentary life, or maybe they have high levels of fatigue or their less activity levels than they used to, which I know can be with Ms..

That can be something that's taking place. We just want to 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 how 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 is fantastic. And you can incorporate different types of variety of different types of exercises. The one, 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, the primary form of exercise may be a little bit harder, for example.

So this could be a compliment. The ad later on, there's whole body, vibration devices. This would be like, the power plate, goes about and shown to have a small effect on bone density, but it's not that those those should not be considered to be a replacement for for a good exercise and workout routine.

there's also low intensity vibration devices. so like Meridian adjuvant, those are a couple those are great for muscle strength, balance that 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.

Root causes and the stronger bones plan

I always encourage people start with the foundational exercise plan first, and then start to add in the complementary 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 had, 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 in it? It basically tells the story that fractures are the future and medication dependance is the only way. And that doesn't have to be the case.

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 to 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 balance training.

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

Fantastic. So important. No. What does a stronger bones plan look like? Kevin, if we are really focused on getting to the the root cause issues, getting the right diet, nutrition in place, getting the exercise plan in place and getting to the point where 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 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 3 to 6 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 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 going to have them to rebuild what they need.

So, and the other 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.

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 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 to 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 and 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 those gut health issues. so 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.

Where to find Bone Coach

And that is what's going to really help us move the needle on improving our our bone density. Our bone quality are 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 cabinet just told us empowered us, that there's a lot that you can do to make sure that your bone is 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, you know, for everybody listening it, number one, if you have osteopenia, osteoporosis or you know, somebody who

has osteoporosis to tell them to go to bonecoach.com.

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

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, 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.

Should have we come back? Yeah, I should. And, tell us, do you have an Instagram social media following as well? I do, I've got Instagram @bonecoachkevin and you can find on all the social channels at Bone Coach bonecoach.com.

That's the best one. Okay. Thank you so much for being part of the MS and Neuroimmune Summit. Thanks for having me.