MS & Bone Loss: Building Stronger Bones Is Possible Transcript

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Introduction and Bone Coach Background

Hey, Kevin, welcome so much to the M. S. Neuroimmune Summit. I'm thrilled that you agreed to join us because bones are a big deal to me personally and to many people here in the MST community.

So please introduce yourself and explain your area of expertize. Well, Dr. Wahls first, thank you so much for having me because there is this is an important topic, right?

That and I'm Kevin Ellis. Right. A lot of people know me as bone coach and my whole focus has been on helping people build stronger bones. And the reason I even got into this area as a as a younger male because usually it's not younger males talking about osteoporosis is that I received an osteoporosis diagnosis myself in my early thirties.

And part of that was I had a variety of different health issues that were contributing to that bone loss, one of which was celiac disease, where I was mal absorbing nutrients for many, many years.

My body still needed those nutrients to execute its daily function. So, you know, where did it go to get those nutrients? It went to the largest reserve of minerals I had, which were my bones and started pulling from there.

And then I was subsequently diagnosed with osteoporosis at an early age. And at that point in time, I when I got the diagnosis, it was hard for me to even believe that first because I got a bone density scan and I got the results of a letter in the mail and all of that.

All that I was told to do was go on a gluten free diet. And I was like, What is osteoporosis first? So I Googled it and it basically just said medications and fractures were going to be my future.

And I was scared, honestly, when I read that. And I was scared and I just wanted to figure out what I needed to do. So that's why I went down the path of the research and consulting with people and getting the right plan in place.

And eventually I ended up becoming a coach to help other people building on a team of credentialed experts to help in this area. And then we've got programs that have now helped people all over the world.

So and I am so glad that you are doing that. You know, my journey is not too dissimilar. I know I have the misdiagnosis. You know, I'm getting more and more frail and 24i get my A bone density and I had one earlier.

You know, I'm a farm kid, so I had really, really dense bones. So I was almost three standard deviations above because, you know, I'm a farm kid and I and I work so hard and so suddenly I'm almost osteoporosis.

I was almost osteoporotic in a in 2004. And, you know, that was, I think, 49 at the time. And they wanted me on all those drugs. And I read and I was like, Well, it doesn't really look like that solves the problem.

So let's, let's get into how we better solve the problem. And, you know, again, let's talk about the difference between osteopenia, osteoporosis. You may not know that.

Yeah, this is important. So osteoporosis literally means porous bone.

Osteoporosis, Osteopenia, and Testing

And it's a condition that's characterized by either not enough bone formation, excessive bone loss, or it's a combination of the two of those things. And in osteoporosis, both your bone density and your bone quality reduced.

And that's going to increase your risk of fracture. The way you find out you have osteoporosis is through a bone density scan. It does a scan. You lay down on a machine, it does a scan.

It's very low levels of radiation and it tells you the actual mineral content of your bone. And then it generates a score. And if you've got a score of plus or minus one, you're going to be told that's normal and healthy if you're in that range.

If you're at -1 to -2.5, they're going to be you're going to be told that's osteopenia. We would call that low bone mass, which is also that's like a precursor to osteoporosis and if you're -2.5 or lower, -2.6, -2.7, so on and so forth, that's considered osteoporosis.

And the greater that negative number becomes, the more severe the osteoporosis. Now, most people don't get these scans done until later in life, sixties, seventies.

They don't really know where their bones are, what state they're in until later in life. I always encourage people, get it done earlier, get a baseline.

So you understand, did you not build up enough bone in your younger years? Did you not reach peak bone mass? Right. That's an important point to look at.

And then also one single bone density scan that's not going to tell you what's going on in your bones right now. Present day. Are you still actively losing bone, a single bone density scan?

It won't tell you that. So there is a test that you can look at called the serum CT test, the c t low peptide test. It's a blood test and it looks at the activity level of cells that are breaking down bone.

And if that activity level is elevated or even really high, that can be an indicator of active bone loss and a root cause issue that needs to be addressed.

Okay. So I'm a young person and anyone who's in this summit, we're at risk for accelerated bone loss. And we'll talk about that in just a moment. What can I just call my primary care person, say, hey, I'm thinking I should get a bone density scan.

I know I'm only 24. I know I'm only 31. How do I how do I get them? And how do I convince my primary care doc or my specialist to get me get me a bone scan?

Great question. Because if you do that right, if you're in your twenties or your thirties and you don't have any other things that we can talk about in a second, you might get brushed off or you don't need that.

You won't need it to your later in life. Even people that are in their 56 years sometimes get brushed off. You don't need to worry about that. I hear that quite a bit too.

We have to understand the point at which you might ask for that is probably going to be number one. Either you are primary osteoporosis is when you have the decrease in estrogen in postmenopausal women.

Estrogen has a protective effect on bone as estrogen levels decrease as they do during menopause. That causes an increase in the activity level cells that break down bone.

So when you're in that category, you can use that as justification to say, hey, this is I know this is something I need to be aware of. Can we get this bone density scan ordered?

But then there's another cause of bone loss in osteoporosis. That's secondary osteoporosis, and that's where it occurs as a result of behaviors, disorders, diseases, medications and conditions.

And this is the category that a lot of people who are younger would fall into. But you can still have a secondary

cause and be in your fifties and sixties seventies also.

So what could some of those contributing factors be? Well, let's tie it into this summit specifically. Right. There is mounting evidence that EMS is associated with increased risk of osteoporosis and fractures.

And there that that's for a variety of reasons. I think one of them is physical inactivity and that reduced mechanical load on the bones. So your bones need healthy stress placed upon them to maintain their strength and to even get stronger.

But if you have a physical activity or you're reducing that load, that can be one contributing factor to osteoporosis. And most another other ones could be low vitamin D levels.

Maybe it's the use of medications such as glucocorticoids, prednisone, anticonvulsants, right? Some of those medications can contribute to bone loss. And then the underlying inflammatory process, too.

That could be something that is contributing to and fueling bone loss.

Risk Factors for Bone Loss in Chronic Illness

Also, if we zoom out a little bit more and we look at digestive health, if you're somebody who has Crohn's disease, ulcerative colitis, if you have celiac disease, that's that's where I was at.

Right? That's where I'm at. So celiac disease is this autoimmune condition where when you ingest gluten, it damages the velocities, tiny little nutrient absorption centers that are responsible for absorbing the nutrients from the food you eat and then shuttling those nutrients to where they're needed in the body.

But if you have this condition, it's damaging and blunting those villi and I call them your roots. They're like roots in your soil. So it's damaging your roots and you effectively, you know, you're having a hard time getting those nutrients in your body will pull from the bones to get what it needs.

So those are some of the bigger ones that I would say could could be contributing factors to bone loss. And when you have those situations, that can be a justification that you go to your doctor and say, look, I know this is a risk factor for osteoporosis.

All I'm asking for is a bone density scan. Can you help me? I'm just looking to get some more information, some more objective data. Can you help me? You know.

Yeah. And again, who's listening? If your specialist doesn't want to order that, go talk to your primary care team. I think the primary care team, I predict, would be really much more receptive to getting a bone density.

Now, let's talk about food is one of my favorite topics. So what foods are really going to be harmful to my bones? And do you have a food recommendations for my bones?

Absolutely. So I think this is one that, you know, I know you talk about this, Dr. Ross, and then also just in general, most people in the health space that are talking about reducing your sugar intake.

Right, is just important for your health in general. But I'm going to give it one more for bone health. Right. Because most people don't understand for just bone health why you would want to reduce your sugar intake.

Sugar damages bone by triggering an inflammatory response. It helps lower your vitamin D levels. It depletes your bone, healthy minerals, your calcium, your magnesium, your chromium, your copper.

It inhibits the intestinal absorption of calcium and it blocks the absorption of vitamin C. Vitamin C is key for developing and maintaining a healthy skeleton.

Think about this. Your bones, the underlying structure. It's a collagen protein matrix upon which minerals are laid, right? Vitamin C stimulates pro collagen and enhances collagen synthesis and stimulates something called alkaline phosphatase activity, which is a marker for bone building cell formation.

So if you're taking in lots of sugar and treats and things like that, vitamin C is you're going to have a hard time with that. It's going to block back the absorption of vitamin C and you need it.

So that's one of those things that we would want to avoid is high sugar foods. So we got to get where there's sugar. I'm going to throw in if I want to get rid of the ultra processed foods that are made from.

The breads, the chips, the cookies, the. Flour based products, you know, grains that have been milled into flour, dramatically chewed up our blood glucose in our big part of the problem.

So what are the foods that are good for our bones? Because we we grew up hearing drink the milk, drank the milk, drink the milk. So it's not good for our bowls or not.

I'm not a fan to drink a bunch of milk. Okay. Just start out by saying that. So dairy in general, if somebody is going to include that in their plan, it needs to be cultured and fermented dairy.

So that would be the situation. But it's not right for everybody, right. If somebody has an autoimmune condition that they're trying to put into remission, dairy's probably not.

Going to be a problem. Yeah, it's probably going to be part of that plan. But in some situation, if somebody is not, then it could be a helpful addition also.

So that would be where we have our Kiefer's, our, you know, yogurts, where we're maybe maybe it's a camel or goat or sheep or something like that instead of cow.

When you explain why to the audience. Well, yeah, of course. For to avoid cow. Of course. So there would be a different type of protein. A one protein in cows a lot of times is what would be consumed.

A lot of times people have a hard time with that. And then A2 would be found more in things like the goat, the sheep. The camel. Camel can be a great option to water.

Buffalo also could be another one. So I'll become at that.

Foods That Harm Bone Health

And some people can tolerate that I cannot. It still truth my face paint. So I've tried that it was disastrous. I end for 200 million years, which is sort of a long time.

Mammals have been raising our young with milk. So milk is a superfood before you fuze your growth plates. It's has a lot of growth factors really really good for us.

And maybe it's why the Europeans dominated the world for a long time, because we were the first ones to build a used dairy. However, remember, it has all those growth factors.

So once your growth plates Fuze, those growth factors can either make me fat or make me cancer. And I'm not a fan of either one, so I prefer to have nut milks in coconut milk.

And though I love cheese, I don't personally have it. My my my daughter has it occasionally. Jackie has it occasionally, and they always have the goat cheese in that works well.

They do not do it all well with milk, but in I expect that there's a lot of good things that happen in the fermentation process process that may be managing some of those growth factors.

I don't know. Now back to you, Kevin. And I would say to, you know, it's not something just like with any food that any of us have tried on our health journeys, right?

You try it and if you it may not work for you, right? And that's okay. And then we just make adjustments and we try to see what else could work. And I always encourage people, especially as it relates to food, approach things with curiosity instead of expectation.

When you remove that, your disappointment is going to disappear, right? So I'll say that again, approach things with curiosity instead of expectation.

When you remove the expectation, your disappointment will disappear. So we were just talking about dairy, for example. A lot of times people try to rely on that for a good source of calcium.

Well, if I'm not getting dairy, what are some other sources of calcium that may not potentially be as inflammatory for me? I like fish and specifically I like fish that have the bones in, and you would have to get them in like a can for this BPA free can ideally.

And this would be your salmon, your mackerel, your sardines. I love these. And if they've got the bones in the reason you want the bones in and they're not hard poky bones that are going to hurt your mouth to almost kind of melt in your mouth, I know I'm not making the case for some people for, you know, fish right now.

But I will say the reason I like them is, number one, they contain protein. Again, your bones are 50% protein by volume. They need amino acids. So you got to get that protein and to support and maintain your muscles to your muscles.

And bones are tightly connected also. So that fish is going to have that protein in it. And then the fish also have if they've got the bones in all the minerals and nutrients that your bones, your own bones need in the right ratios that nature has put them in.

Right. So that can be another great source of calcium for you also. And then it has omega threes and omega three fatty acids are like the dampeners of inflammation.

So anything contributing to inflammation, especially long term, that's going to contribute to your bonus. So I really do like these, these fish too. Okay.

And I like those as well. I think they can be super, super helpful.

Bone-Supportive Foods and Nutrients

Now what do we have about greens? Who are what about, you know, a kale collards, mustard greens like a source of these minerals? They are. They're a great source.

One of my favorite greens. Arugula. Arugula is one of my favorite. It's a leafy greens, same cruciferous family of vegetables, broccoli and carrots, rich in potassium, folate, vitamin C, vitamin K, bioavailable calcium, and also contains a bioactive compound called Eris, and which is it's a really neat compound which can help dampen the activity level of cells that break down bone.

It's also a bitter food. And a lot of times our diets today are devoid of bitter foods. And the reason we want bitters is that it helps stimulate that bile production.

Right. And also, we need that bile to help break down and emulsify fats and absorb our fat soluble nutrients, vitamins a, vitamin D, vitamin E, vitamin K.

So those are really important. I love arugula. And that's I would say that's one of my absolute favorite ones. And then I love Dino Kale, LA Sonata Kale, too.

That's another really good favorite one of mine that that can easily be incorporate. And I know you talk lots about different greens and ways to incorporate them to mustard greens.

Really great source of calcium as well. Yeah. And they have a lot of carotenoids that are really great for our retina in our brain and they have a lot of magnesium which also in Kevin, you can fill us in here.

Magnesium, important for bones. Very important for bones. I think one of the most important a lot of sites people think of just like calcium and vitamin D when they think of the nutrients that are important for their bone health.

But magnesium is really important as your as your vitamin D, your calcium intake increases, so too does your need for magnesium. So that's important to keep in mind.

And then also, as you take in your proteins, right, you break those proteins down and they get absorbed in amino acids and they need to be rebuilt inside your body, into new tissues, into new things, into new muscle and bone.

In order to rebuild anything inside your body, you have to have magnesium to do that. So magnesium is incredibly important for just your general health.

It's involved in so many processes in the body, but also specific actually for your bone health, too. You know, when I was looking at the enhanced data for another talk that I'm giving, oh, we consistently don't meet our requirements for calcium or magnesium or vitamin D or vitamin A, vitamin C and, you know, all of these really key nutrients, which brings me up, we haven't talked about vitamin K yet or vitamin K, what are their roles in Bone health?

Yeah, Vitamin A's. I mean, these are these are the fat soluble nutrients that are so, so important. I mean, vitamin K, too, is so often overlooked. So when we talk about vitamin K, there are two different types.

We'll talk about K one and K two, k, so K one can be converted to k two, but not not efficiently. K two is important for bone health also so k two aids in bone mineralization and formation by activating something called osteo coulson and matrix GLA protein.

And what that does, it helps. It helps of bone mineralization, but it also helps make sure that that calcium that you're taking in is not going to your soft tissues like your arteries or kidneys and things like that.

So that's really important. Hang on for a moment through who's listening? These same compounds we now know, at least in the animal models are important in re myelination.

So vitamin K2 is a super important nutrient for us. Where do we get that? Kevin Well, so if we're talking about K one, K one is going to be your dark green veggies that we were talking about earlier too.

So dark green veggies, asparagus, kale, broccoli, chard, those those are all great sources of k one, k two. M. K. For now, there are a lot of different markers, but we'll talk about the main ones that most people talk about are. M. K.

four. M. K. seven. So M. K. for beef, liver grass-fed, ghee and butter, dark meat, chicken, pastured, egg yolks. EMU oil is actually a source of k two. I'm k four also k two M. K.

seven. This would be your fermented foods, your sauerkraut, your kimchi. You're not oh if you bacterial fermentation in our guts even that's pretty amazing like the bacteria in your gut can actually produce compounds and nutrients to help support your health.

That's amazing, right? I would remind everyone who's listening that when we're talking about the animal sources of K two, that I assume that needs to be an animal that's eating grass and algae, that if they're a can refinement to a careful confined agricultural feeding operation so they never see sunlight, they're just getting corn.

They do. They have K2. This is such an important point, right? You are what you eat. Eat so the the input into that

animal becomes the input into you.

And like, if that cow is grazing on beautiful green, lush pastures right far off the highway and, you know, it's really happy playing with other cows in the field like the what comes from that animal is probably going to be a much better product and much more nutrient dense and rich in the things that we would benefit from with our own health than if they are sitting on a feedlot being fed corn and grains that were sprayed with pesticides, IEDs and, you know, all kinds of other chemicals and things like that.

And they're not in a good, healthy, happy environment. Yeah.

Exercise for Stronger Bones

So it's a very different profile in terms of the mineral content, the vitamin content and the health of those animals that are from a regenerative farm or a farm that's grass fed, grass finished, and, and you want to be sure that you're looking when you're buying your, your meats, that it's not just grass fed, but grass finished as well.

Absolutely. Okay. So I think we've covered the foods to add the foods to remove it. Would you say that are there dietary plans that that you're you think are particularly helpful?

You know, there are a lot out there. You know, Paleo Mediterranee, Indian, vegetarian, vegan, McDougall, Swank, my plans, the various walls plans. Do you have thoughts about any of those?

Yeah. I mean, number one, obviously, it varies for every single person, right? So some people that can be on a mediterranean diet that are including certain foods that might not work for somebody that has an autoimmune condition also because when you're when you're pulling out things like because you've got to pull out the grains, the legumes, those kinds of things also.

So certain plans may not work for certain people. And I think what's most important is even if you're starting with, you know, Dr. Terry Walsh, within your plan, you know, people are finding the right foods consuming foods.

But even within that, I'm sure they're testing things that work for their own self. Well, I certainly I want them to. Yeah. I want people to pay attention and listen.

And if there are foods that I've said are really, really good for you, but every time you it your body says, no, I'm feeling really bad, listen to your body.

But by all means. 100% right, because we can listen to this superfood. It's going to be so great for our health. And, you know, you have to eat this specific thing if it creates inflammation in your body, it is not a health food for you.

So you can make note of those things as you hear them, like as we're talking to just make note of these things and just again, approach it with curiosity instead of expectation.

So I love it. I love that. Let's talk about exercise. Exercise is so important, right? I mean, we're talking about nutrition, giving us the inputs and then gut health is also important.

You need to actually be able to absorb those nutrients, but you can take in the right nutrients and actually absorb them. But if you're not providing the stimulus that your bones need to become stronger, you're going to have a really hard time maintaining them and they're not going to become stronger.

Imposing on everyone. We're talking about gravity. You need to have gravity on your bones, and so we have to have stress. So the stress of gravity is a good thing, you know, headed back to your cabin.

Yeah, absolutely. The stress of gravity is really important. And most people, when they're told to exercise, especially as people you know, as as they get older, they're just told, hey, do some walking.

That's all you need to do. That is not going to be enough. It's helpful, right? You want to keep walking, keep doing that. And that's important to do.

But it can't be your only form of exercise. Your muscles need two different types of stimuli. They need muscle pulling on bone and they need impact. The most effective interventions are going to use one or both of those things in combination, and there are different types of exercise too.

So like you had just mentioned, Dr. Rawls is people want to incorporate weight bearing exercise and this is where your body and your bones are working against gravity to keep you up right there.

Things you're doing on your feet. They're placing a good kind of healthy stress on your bones. So this would be your walking, your jogging, your hiking, your gardening, your dancing.

You're playing with the kids and the grandkids. Or it could be your Pilates, your yoga, your tai chi, your qigong, those kinds of things fall in a weight bearing also.

So those are great. We want to incorporate those things. And then there's also non weight bearing exercise though and that's where your body and your bones are not working against gravity to keep you upright.

And this would be things like your swimming or your cycling now and this is the same thing actually astronauts face when they go up in a space. Right.

We don't have gravity. We don't have that stimulus. So you actually you actively have to work to maintain that. Otherwise you'll lose it. If you don't use it, you'll lose it.

So I just touched on swimming. And cycling specifically is not being weight bearing exercise. If you're doing those things and you enjoy those things, it doesn't mean to stop doing them right, especially if they make you happy and they bring you joy right there, provide a stress relief.

That stuff can't be overlooked either. The benefits from that can't be overlooked either. But you have to know you can't just swim every day and just say, Gosh, I got some good cardio and that's my only form of exercise because we've got to get that stimulus on the bones and that's where we bring in the next type of exercise, which is resistance training and, you know, muscle strengthening exercise.

And that's where we're incorporating things like resistance bands, or maybe you've got some dumbbells or some barbells or maybe you're using machines at the gym and all of those things can help you, but you need to make sure you're incorporating that type of exercise, too.

Now, some of the most helpful specific exercises when it comes to your bones, squats, deadlifts, chin ups, overhead presses, those can be some really helpful ones.

But if you're listening to this and you're like, Gosh, that's intimidating, or I don't know if I can do that or you know, that may not be the right fit for my situation.

That's okay. All you have to do is start where you are as you are with what you have, and you slowly start to progress up to where you're providing that stimulus that you need.

Fracture Risk, Balance, and Key Takeaways

You've got to be patient with yourself, work within your body mechanics, learn your body, learn what's right for you and one solid workout is not going to build your muscles or your bones overnight.

It's a process over time. Okay, now, if I get low bone density, so osteopenia, osteoporosis, am I definitely going to get a fracture? Fracture is not guaranteed, right?

It's not guaranteed because just because somebody has low bone density, the mineral content of their bone does not mean that the structural integrity necessarily is bad.

So there's bone density, which is the mineral content, there's bone quality, which is the structural integrity, the microarchitecture, how that bone is organized.

Those two things combine to create bone strength. So sometimes people only have part of the picture. When they get a bone density, they only have, you know, their bone density score.

They don't have the bone quality piece, too. So there's that. And then the other part of this is it's not guaranteed because there are proactive things that you can do to start moving in the right direction, to turn this around, to reverse that bone loss, to actually build bone strength.

So you can build bone strength. And I think that's that's a really important part of this. And then also one of the major contributors to fractures is people.

Age is falling. So how can we improve our balance? How can we prevent those falls which are going to in turn, prevent fractures in the future? Okay. Well, Kevin, this has been wonderful.

I could talk to you for hours, but we should really be wrapping things up. So let me ask you, what is the one thing you would like people to take from our conversation?

I mean, I think the biggest one is on anyone's health journey. Just be patient with yourself, right? Know that things aren't going to be perfect the first time you try them or test them out.

And that's okay, right? Just be patient with yourself. You don't need to know. You just need to know where you want to go. You don't need to know where every single step is.

Place, day one, right? So just set that vision, hold that vision, move in that direction. And that's going to be just a wonderful place to be. So that's what I would I would encourage people to do.

Okay, Kevin, so this has been so helpful. Where can people go to find you for even more information? Wonderful. You can always find me at Bone Coach NBC.com.

We have a ton of free resources over there and just helping people get the right plan in place for addressing bone loss, building bone strength and just having an active future.

I think that's just so important. And then you can always find me on on the social channels and find me at Bone Coach Kevin on Instagram and at Bone Coach on Facebook and YouTube.

And we've got a podcast too that Dr. Jerry Walls, you will be on there very soon, I'm sure. I am totally looking forward to that. Thank you so much, Kevin.