The Hidden Link Between IBD and Bone Loss Transcript

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Introduction and Guest Background

Welcome back. We're continuing our conversation on Reversing Crohn's and Colitis. I'm your host, Sinclair Kennally, and today I am joined by my wonderful friend and colleague Kevin Ellis.

Kevin Ellis is known as the Bone Coach. He's a Forbes featured integrative health coach, podcaster, and as the founder of Bonecoach.com. And through a unique three step process and a world class coaching program called The Stronger Bone Solution.

He and his team have helped thousands of people with osteopenia and osteoporosis in over 1500 cities around the world to get confident in their stronger bones plan.

His mission is to help millions of people with osteoporosis, build stronger bones and help our children and grandchildren create a strong and healthy foundation so they can lead long, active lives.

Welcome, Kevin. I wanted to have you on here to talk about that gut health, bone connection. I'm so thrilled you're here. Well, there's a big connection.

It's good to see you again, by the way. And, Yeah, this is such an important topic. And for everybody listening, you know, if you're on this Summit, of course, gut health is important topic.

IBD is an important topic. And there's absolutely a connection between IBD, Crohn's, Colitis and bone loss, which can lead to osteoporosis. And osteoporosis can increase the risk of fractures.

Fractures. Put all those adventures and travel and all the bucket list things you want to do in the future. All that good quality of life you want with all the people you love most that puts that in question.

So that is why this is such an important topic, is we need to be aware that our gut health is tied to our bones, and what do we need to do to preserve and strengthen that structure. So that's what we're going to talk about.

And we can even start by talking about the connection, the very specific connection between, IBD and osteoporosis. So, number one, osteoporosis is common in people with inflammatory bowel disease.

IBD and Osteoporosis Connection

So 18 to 42% of people IBD patients have osteoporosis, 30 to 60% of people with Crohn's or Colitis have low bone density. And fracture risk is 40% higher in IBD patients compared to healthy individuals.

So just right there, that's a pretty that's a pretty, alarming statistic. If you if you haven't heard those before of why this is important for you to pay attention to your bones.

Now, there are multiple reasons why this bone loss can happen. I'm going to touch on each of these here briefly. One of the first reasons why we have inflammatory cytokines.

We have long term steroid use, vitamin and mineral deficiencies, malnutrition and malabsorption and then hormonal imbalances. So let's go into each of those here briefly.

the first one would be let's talk about pro-inflammatory cytokines like interleukin one, interleukin six, tumor necrosis factor alpha. They all play a direct role in bone loss.

That's one. And it also is it's affecting this system called rank rankle OPG system that gets disrupted. And that ends

up leading to this increased bone resorption or breakdown and decreased bone formation.

And this is a healthy process. It's supposed to happen. But when we have issues with these inflammatory cytokines, it can affect this bone remodeling process.

So that's one of the big contributors to bone loss. Another would be the vitamin and mineral deficiencies. So in patients that have IBD we can see deficiencies in vitamin D and calcium.

Calcium is the primary mineral constituent of your bones right. So you need calcium is so so important. another one would be vitamin B12. Vitamin C vitamin C is key to maintaining and developing a healthy skeleton.

Part of the reason most people. Don't know that. Most people don't know that. so vitamin C, the reason why is your bones are 50% protein by volume. They are a collagen protein matrix structure with minerals kind of laced into it so that collagen protein matrix structure, that's the important piece.

Vitamin C stimulates pro collagen and enhances collagen synthesis. So you have to have vitamin C to maintain and build a healthy skeleton. vitamin K. That's another, nutrient deficiency that we can see.

Phosphorus, zinc, potassium those are some others. So those deficiencies will end up ultimately directly affecting bone metabolism. So that's a really important, factor as well.

And then let's talk about the use of steroids. So long term steroid use glucocorticoids. Now just know that if you're taking these medications they will contribute to bone loss okay.

That's pretty well known. and the most precipitous loss is going to take place right, right when you start. But if you continue on, that bone loss is going to continue on to.

So I know that that's a common thing that's used with IBD. You just have to be aware of that as well. And then the the last one that I'll touch on in terms of the the big connection between IBD and osteoporosis would be the hormone imbalance piece.

So this inflammatory process combined with if we're using steroids as well, that can decrease DHEA levels and that can lead to reduced androgen estrogen.

And that hormonal imbalance is going to negatively affect our bones. So those are some pretty big connections there between the two. And that's why we want to talk about what you can do to proactively start building, preserving, strengthening your bone structure.

I think this is so empowering because for so many people, this is like a really confusing, slow suffering journey, right where your gut health is getting worse and worse, you're becoming more and more sensitized.

That's certainly happened for me. And I know for you as well, you know, on our journeys and you're taught by the medical system that each of these systems in your body that are going awry are siloed.

And so this might be the first time you ever heard that, okay, my gut issues are directly linked to my bone loss issues.

Why IBD Causes Bone Loss

Or this may be the first time you're actually starting to pay attention to the fact that you may have bone loss issues, and you need to get a scan right away to get this information for yourself.

If you have IBD, you have a responsibility to your future to do so, in my opinion. So this is great that we're drawing the connection. Yeah, don't worry guys.

Like I know this is this could be stressful, but Kevin's going to give us a lot of tips today about what we can do. Even when you're actively suffering from IBD to be proactive.

Exactly. And there are a lot of things that you can do. So we talked about I know it's scary. You got to get the scary stuff out of the way where we talk about you know, how it's connected and, that you just have to be aware you can't address something if you're not aware of it. So that's that's what we have to do.

We're starting with the awareness. Now we're going to get into some actionable things that we can do. Awesome. Love it. So the piece that I think that is the most interesting that you said right now is actually some of the Western medicine's go to strategies for helping you to keep a handle on your IBD.

Crohn's Colitis symptoms are actually driving bone loss and setting up for serious problems in the future. So, what I want to make sure we have time to cover today is for those people who have been on that, what are your recommendations or where should they start?

Do you want to start there, since that's the most upsetting that we've covered so far? And then we could talk about general practices. Yeah of course. Let's start there. So let's start again.

So glucocorticoids obviously we all know they're steroid medications. They're designed to suppress inflammation. They're a tool that's used if you go to conventional medicine practitioners.

That's a tool that's going to be used. Those are mimicking natural steroid hormones produced by your body. They're going to be used to treat, certain conditions.

Crohn's disease can be one. Autoimmune conditions like rheumatoid arthritis could be another. Yeah. And this would be your prednisone or cortisone. Now they reduce.

The reason they contribute to bone loss is they're reducing this GI absorption of calcium. And they're increasing the urinary excretion of calcium. That's a key point we're going to come back to is also directly act on osteoclasts, the cells that break down bone to increase their lifespan.

And that reduces the bone density too. So that's that's disrupting that bone remodeling process. And in men, again that can decrease testosterone levels.

And again, we can touch on that shortly. But the big one is we touched on nutrients to. So one thing that you can do and I know this is a challenge when people have IBD is how am I getting enough nutrients?

I've already eliminated certain food groups, dairy being one of them, most likely. Right. That's a great source of calcium. And so then the challenge becomes, well, how do I figure out how to get enough calcium into my diet to help maintain the structure that I've got?

But if you're not incorporating cultured or fermented dairy products, what else could I incorporate? A couple that I really like, could be I do like sardines, mackerel, salmon with the bones and and the cans.

I talk about these all the time, and I love them. But the reason I love them, I've. Literally seen you and Michael, like, in the parking lot, eating canned fish.

Both of you, at the same event. It's hysterical. Yeah. And I, I don't need anything on them. Some people do. Some people might need a little, to dress them up a little bit.

I don't personally, but the reason I like them is they have protein. Protein breaks down to amino acids. Amino acids are the building blocks of your muscle and bone.

So that's that's great. They also contain all the minerals in the right ratios that nature put them in that your own bones need, including calcium and phosphorus, magnesium, all these other important nutrients.

And guess what? It's not dairy. It's not a dairy source of calcium. It's it's a natural other source of calcium that you can get into your diet that a lot of people do really well with.

So you can try that and that could boost one can I think has, I don't know, 300mg to 350mg of calcium, something like that. Just look at the back. It'll tell you.

But that can help give you a good boost. There. another one that I like would be arugula. And that's a bioavailable plant form of calcium, that you can get through.

it's a it's a cruciferous vegetable. Same. Same family is broccoli and kale. but it's a leafy green, and it's easy to incorporate whether you're, you know, whether you have to steam that or sauté it or whether, you know, raw may not be necessarily the way to go there, but you can if you want.

but that's another bioavailable source of calcium. So those are two that you can test out and try to incorporate to see if you can boost your calcium up a little bit more.

And then if you're still falling short with all the other things you're incorporating into your plan, if you're going to consider supplementation, you want an absorbable form.

So a lot of people would look at mcfc calcium, which is a great form of calcium. That's like bone meal. But you need good stomach acid for that form of calcium.

So if that's an issue for you right now, you could consider a more absorbable form of calcium, like a citrate or a malate or something like that. Okay.

Now if you're going to supplement with calcium, I would not recommend going above 500mg a day. And there are other nutrients that you need to be incorporating if you're supplementing with calcium also.

So maybe namely magnesium, vitamin D and vitamin K2, those are three of the other big ones that you need to incorporate. So the reason for that is if you if you have to supplement with calcium.

Right? I always encourage people try to get through diet nutrition first. But if you're dealing with a health issue, sometimes that's not always possible.

Right. So then we close the gaps with supplementation. So you take more calcium.

Calcium and Nutrient Support Strategies

if you don't take these other nutrients it can increase your risk, your cardiovascular disease risk, and it can increase the risk of calcification of, other soft tissues like your kidneys and your arteries.

So you don't want that. So that's when we bring in vitamin D, which helps increase that intestinal absorption of calcium. Remember I was just talking about when you take glucocorticoids it's reducing the GI absorption of calcium.

So when you take vitamin D that's going to help increase the absorption of calcium and magnesium as your as your calcium intake increases, as your vitamin D intake increases, so too does your need for magnesium.

We already know it's important for a lot of other areas of health. It's also important for your bones to okay and then vitamin K2. This is a fat soluble nutrient.

It's really important for your bone health. And what it does is it make sure that that calcium doesn't go to the soft tissues like the kidneys and the arteries, and it make sure it goes to the bones where it's supposed to be.

So it activates what's called, Osteo Callison and Matrix GLA protein. And that's going to help make sure calcium

goes to where it's supposed to be. So, that's kind of a, shortened, compressed version of some important nutrients that you really want to make sure you're aware of and you have in your plan.

So this is really important overview for folks and even people who have who really struggle with, active gut conditions like IBD, Crohn's, colitis can still safely supplement with these minerals.

And that's really important. Just make sure that they're bioavailable. Right. That's a that's an important piece that your body doesn't have to do too much digestion in order to absorb them.

Absolutely. So one of the things that I think you've been hinting at the whole way along here is that, the standard treatment protocol for osteoporosis is not enough, especially for folks struggling with gut issues.

So is there anything that we haven't covered so far? You want to make sure people understand? you know, when considering like, gut condition and bone density issues, where do we need to fill in the gaps for the standard osteoporosis protocol, like because it's it's frankly archaic what they're still recommending.

Yeah. Yes, it absolutely is. The standard recommendation for most people. So you go in and you get this bone density scan which the this bone density scan that you get, it tells you the actual mineral content of your bone.

So if you're listening to this right now and you're like, okay, I've got IBD, I, I, I'm now aware that bone loss can take place. Go get a baseline if you don't already have one, go get a baseline, get a bone density scan.

Understand where you're at. Understand also there's more to the picture than just bone density. You know bone density or Dexa scan will tell you your density, the actual mineral content of your bone.

What it oftentimes will not tell you is the bone quality, the structural integrity of the bone and the microarchitecture of the bone and how the bone is organized.

Those two things bone density, bone quality combined to create bone strength. So before you go get this baseline measurement from a bone density or Dexa scan, call the facility ahead of time and say, hey, do you have TBS capability, trabecular bone spur capability on?

It's like an add on software to Dexa. If they have it, you know that you can get the density and quality part of the picture at the same time. So that's good. That's a good thing.

There's also another technology that's coming out now and is making its way in the US. It's pretty prevalent in Europe right now, but it's called Rems radiofrequency echo graphic multi spectrometry technology.

It's an ultrasound that looks at your bone density. Your bone quality gives you a five year fragility score predictor of fracture. It's noninvasive and it's through a tool called echo light okay.

So that's another way that you can understand bone density bone quality. So we're talking about getting your baseline understanding where you're at from which to monitor future changes.

That's a great starting point. Then you go and you can get what are called bone turnover markers that are telling you not just that snapshot in time of, you know, what your bone density is, but it's actually going to tell you the activity level of cells right now, present day, if you're if they're actively losing bone or not.

So you can look at these bone turnover markers. And if that activity level is really high or elevated, that can be an indicator of active bone loss and root cause issues that need to be addressed.

The good thing about these markers, though, is instead of just relying on, a physician's recommendation, saying, hey, you have bone loss in osteoporosis, take your calcium, take your vitamin D, here's your bone drug, and we'll see you in two years for a bone density scan.

We now have leading indicators of success that we can look at which are these bone turnover markers. So instead of waiting a year or two to know what's going on in your bones, we can look at these markers every 3 to 6 months and see do we see bone resorption or breakdown coming down.

Do we see bone formation coming up? Is the ratio between the two of those improving? And if yes, that means we're moving in the right direction. Right. So those two tests serum CT CT, low pap time.

That's a blood test. That's the most sensitive marker for bone resorption. The other is the most sensitive marker for bone formation is called P1 amp pro college and type one and terminal pro peptide.

You want to look at this. You want this objective data before you start making decisions. And that's one of the reasons why Sinclair and I were just talking about that.

The standard recommendation is not enough because you get this diagnosis and in 15 minutes you get another prescription that you could be on indefinitely, right?

And maybe multiple medications, even before you even have enough objective information to really make the best long term decision for your health. Right. That's what I'm telling you to do, is don't necessarily put a wall between you and the physician or whoever you're working with and say, no, I'm not listening to you.

Just say, hey, thanks so much for sharing that. I respect your opinion. Can you help me get a little more information now? Can we do some of these tests and get some additional data before I make a big decision like that, and that you just open up a dialog there, right? Not put a wall.

Testing Bone Density and Turnover

Yeah. I think that's a really important reframe. We've got to be our own advocates and CEOs of our own health. So the the piece to that I want to make sure we don't gloss over is the potential side effects and the limitations of those medications that they might be put on.

Can you speak to that at all. Yeah. I mean the other medication. So the, the side effects for the glucocorticoids, right, is that we treat. No, I meant like the, the standard ones that they'll be put on for osteoporosis or osteopenia, which actually have several side effects that are digestion related.

So it would be a real sad, vicious circle. It's we absolutely do. We can actually this is so there are when it comes to these medications that are prescribed for osteoporosis.

Typically they're they have a dramatic effect on bone physiology. It's not like taking an aspirin. And I liken their use to that old economic adage, there's no such thing as a free lunch, right?

There's risks of side effects and short and long term implications of using these medications. Just like with any medication. And there are different categories of these drugs.

There are anti resorption. There are anabolic anti actives are designed to slow down the activity level of cells that break down bone. Can they do that. Yes of course they can.

But they're side effects that come with that an important consideration. So the the different types of these drugs would be bisphosphonates and rank ligand inhibitors.

Bisphosphonates are what most people have heard of. Maybe you've heard of them or your your mother, grandmother or somebody. And this would be fosamax bone Iva re class act.

And now those are phosphates. Now safety and efficacy of those drugs not really well known beyond five years. And as you and I are going about our daily lives doing our daily activities, doing chores around the house, you're exercising, you're you're we're all starting to get these tiny little micro cracks and micro fractures in our bones.

That's normal for every single person. And then what happens is you have cells within the bone called osteocytes that sense that damage. And they send out a signal and say, hey, we need to become stronger.

And then you have cells that pick up that signal and say, okay, these are ostia classe. They come and scoop out that damaged bone. And then right behind it you have these cells called osteoblasts that come build stronger, healthier new bone.

So that's a normal process. When you take some of these medications, especially longer term, you can actually slow down that process too much. Where you start to accumulate the old worn, damaged, weakened bone over time.

So even if you're you're taking this medication for a long period of time and your bone density, remember density, quality. If your density is showing stable or even slight improvement, the quality may actually be compromised.

that is an important that's an important thing right there that you're not going to get that education in a 15 minute discussion with your doctor. and then what I've seen, because we've got about 10,000 people come through our, our programs, and a lot of them come in.

They've got digestive issues. and some of them are taking these medications or attempted to. And if they already had digestive issues, oftentimes the bisphosphonates specifically made those digestive issues a lot worse.

and it can even lead to issues with nutrient absorption as well. So then you've got A12 punch, you're already dealing with nutrient absorption, and they add something else in there that can cause more digestive distress.

It's not the best combination. So, I would say specifically for this audience, the IBD, that's probably one of the biggest, most important pieces to be aware of.

Absolutely. So circling back, we've already talked about, understanding the connection, first of all, between IBD, Crohn's, colitis and bone health. And it's so obvious when you think about it, if we're having trouble digesting and absorbing our nutrients.

But of course, that's going to impact our bone health over time. And then it becomes a serious long term project protecting our bone health and reclaiming it. Right.

Because how long does it take for our bones to turn over when we're healthy? Like up to seven years? You're the one. You're going to turn over a new skeleton.

If you've got healthy remodeling activities every seven and ten years, you've got a new skeleton. So that's a normal process. It's happening all the time.

so anything to support that in a positive way is good. Any of the medications that we're taking that are contributing to bone loss or other other factors, it could be behaviors, conditions, diseases, disorders, medications, all those things affect those hormones to affect this process.

Absolutely. So and you've already touched on some of the great foods that people, if they can tolerate them, could be cycling in to support. From a food standpoint, as you're healing your gut, if you can tolerate those already, that's fantastic.

Otherwise, put them on your wish list and work towards that right? I know so many of us we were at and I was down to three foods, so, you know, there's a there's a definitely a curve of redevelopment there.

But you've also. Just done that. On that note, to speak from that place of pain because I have been there too. Right. So as someone who has celiac disease and, you know, had I actually had this diagnosis of osteoporosis almost eight years ago now, was a long time ago, but, and I've since made improvement.

My bones no longer have osteoporosis. All of that which is awesome. so that's at least a note from, hope and positive positivity perspective. If you find out you have it, there are things you can do.

Medication Risks and Digestive Side Effects

The sooner the better. don't wait because you can start making progress now. but I know that place of having only a handful of foods that you can eat.

And I remember I was standing across, the, the counter from my wife, and I was just crying, and I was eating a piece of cod, and I was. I just remember this.

My mouth was full of cod, and I was just like, is this what my life is freaking come to? And I'm stuffing cod in my mouth as I'm crying? You know, I know the pain.

Trust me, I have been there, friends, I have been there. So I know where you're at. If you if you were there right now. So I'm only laughing because I was there too.

It's not funny, but it is. It's a little funny now. Now, you know, I can tell you about it, but I see that pain in people where they're starting. And I just want you to know, I want you to know.

Like, you can get better. You can heal. There is hope. Do not give up. You just. You don't have to know where all the steps are. Place. Day one. You just have to know where you want that path to lead.

And you followed the vision for it. And you put something in that vision that is something really meaningful that you care about. For me, it was dancing with my daughter on her wedding day, right?

That is that's what I hold out there. I'm going to make it to that point. So whatever that is for you just hold that and move toward that. So beautifully said.

Absolutely. And this is why we have to be our own advocates, because we can't just accept, hey, this is standard practice when we know that there's consequences and big giant gaping holes in those standard practice and standard care.

So what else do you want to make sure our audience understands about the work ahead of them? Because it is a project right to reclaim bone health. If we have this serious issues, I'll touch on some some bigger levers from an actionable perspective.

Sleep. I mean, a lot of us talk about sleep and how important it is, but to really, truly heal, that is one of the biggest levers that you can be pulling and addressing in your health.

So prioritizing sleep, being in bed by ten or sleeping in that 10 to 2 window, setting the stage for the environment of sleep before you're actually going to bed.

Not looking at your phone or your computer, or doing work right before you lay down for bed. Give yourself some time to decompress from that. Give your eyes time away from that light and stimulus so that you can actually get to sleep.

I personally, I still do a little sleep mask. I'm sleeping in a dark room. I've got some lavender oil that I'm breathing in before I, before I go off to bed.

So that all helps me. And I track my sleep with an aura ring. And the reason I track is because I can improve something that's off if I'm tracking it.

Right. So that if you don't have one, that could be a good tool to incorporate. But sleep is one of the most important levers for your gut health and your bone health, reducing stress.

Another vote for for that for bone health would be you need to reduce your stress. It's not going to be good for your bones. Long term. And when I say reduce your stress, I don't just mean, you know, a sigh at the stoplight, right? Or a one of those, I mean, like cultivating a healthy daily practice, whether that's prayer or meditation or breathwork or a combination of those.

What does that look like for you? What's consistent and sustainable, and how can you incorporate that and prioritize that? And this is coming from somebody who I used to laugh at meditation and breath work 10 to 15 years ago because I'm I'm a marine, right?

So I, I always said, oh, I'm, you know, I'm not I'm, I'm too tough for that or I can't do that or I can't get my mind still enough to sit there.

Hope, Recovery, and Bone-Building Habits

You can stick with it and it can be a great tool for your health. And the last one I'll touch on this is really, really important for your bones is exercise.

So we talked about the nutrients and foods and the building blocks and helping with the restoration when you go sleep and all that stuff. But you can't build bone if you don't provide the stimulus needed to build that bone strength.

So if you're in a place, let's say you go get this bone density scan or Dexa scan, and you get a good picture of bone quality and it says you've had some bone loss.

Just know that in order to come out of that deficit, you have to have a stimulus to help you get out of that deficit. And you got to have all the building blocks, but you got to have the stimulus, and that's the exercise.

So you want to incorporate different types of exercise into your routine. And the two different types of exercise would be weight bearing exercise and muscle strengthening and resistance training.

Exercise okay. So weight bearing exercise that's where your body your bones working against gravity to keep you up. Right. There are things you're doing on your feet.

They are placing good, healthy stress on your bones. This would be walking, jogging, hiking, gardening, playing pickleball, playing with the kids or the grandkids out in the yard.

Yoga. Pilates. Tai chi. Qigong. Notice not all of those are formal exercise. Some of those are play to. So you can you can be out having fun and still get some of this weight bearing activity where we get a little bit of stimulus for our bones.

what we don't want to be doing is just doing non weight bearing exercise. And this would be cycling and swimming. Swimming especially. And swimming. You do not have that good healthy stress being placed on the bones.

And it's the same thing astronauts deal with when they go up into space. Right. If you don't use it you lose it and that's that. So you can't just get in a pool five days a week, swim your laps, get out and say, I've done enough exercise.

You have to do more. Okay? So you have to bring in this next part, which is muscle strengthening and resistance training. So whether that's a variable resistance bands I really like those.

Whether it's kettlebells, barbells, dumbbells and machines at the gym and incorporate some of the bigger bang for your buck movements. Right. Bang for your time movements, which would be squats, deadlifts, overhead presses, all these are some great movements to incorporate.

And if you if those sound intimidating when I say them all right or you've never done them before, don't worry because you can start where you are. Work with somebody.

They figure out your body mechanics, start at a weight that we can get the form down first. The form matters most before the intensity and then slowly progress up with good form.

So you're in that 5 to 10 repetition range, or actually providing the intensity we need to build that muscle and bone strength. So those are my suggestions.

You're the only person you're competing with is yourself. So don't try to don't try to rush in. You don't do anything that's going to lead to injury. It's just not worth it.

But, you can you can absolutely make progress if you start incorporating those things into your plan. Absolutely. And it's never too late, right? Never too late.

Safety first. But it's never too late. Yeah. You know, I really appreciate your advocacy in this space for, just your relentless message of hope and how possible it is for people from all walks of life, all ages, all different health conditions, to take their bone health back into their own hands and that this is very doable.

So thanks for sharing them and your actionable tips today. And all of that advice about how to navigate the standard medical system, because that's that's really invaluable.

So where can people find you in your work? Well, thank you so much. And you can always find me at bonecoach.com We have lots of stronger bones, resources, bone healthy recipes, stronger bones programs.

You can even work with a team to help you build stronger bones so you don't have to figure it out all by yourself. All that stuff is available at bonecoach.com I love that you have a podcast too, right?

Do you have a podcast? Sinclair has been an amazing guest and will be another guest again. and yeah, we've got all the social channels to at Bone Coach and @bonecoachkevin awesome.

Thanks so much for sharing today.