When Broken Bones Won’t Heal: The Functional Medicine Approach to Recovery Transcript

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Opening on Bone Remodeling

What most people don't realize is as you go through your normal day's activities, you're actually breaking down bone. And you want to do that. There's an upside to it.

Absolutely. Yeah. It's like breaking-down muscle. You know, people go to the gym, they think they're building muscle, but you don' t build muscle in a gym.

But then the body rebuilds it stronger afterwards. The rebuilding stronger afterwards is so important, right? Because if you don't break down bone, your DEXA scan looks better, you're x-rays of bone density appear better.

But you actually have more fragile bone. This is a lot of people find this very counterintuitive. And it's scary to think like, oh, actually, I'm at higher risk of a fracture, even though my bone intensity appears better Absolutely.

So taking a drug like that, I'm not a big fan of those drugs necessarily, but it certainly wasn't going to be indicated for a non-union. Welcome back to the Think Well, Age Well podcast.

I am your host, Dr. Heather Sandison, and today we're diving into a topic that doesn't get nearly enough attention until it becomes personal. This is bone health, healing and what happens when the body doesnt follow the expected recovery timeline.

My guest is Dr Ben Whites. He's a doctor of chiropractic medicine with nearly four decades of clinical experience. He is a certified sports chiropractor, functional medicine practitioner, and host of the highly respected Rational Wellness podcast, where I've been lucky enough to be a guest, one of 450 guests, with leaders in health and medicine.

Beyond his clinical work, Dr. Weitz has spent years building community among functional medicine practitioners through functional medicines discussion groups in Santa Monica.

In his educational platforms, they also connect clinicians and researchers and health enthusiasts alike. What I'm really excited about in today's conversation, and what's especially unique, is that we're not just talking about bone health from the clinical perspective.

We're talking about Dr. Ben's own experience with a serious fracture that failed to heal as expected, leading him into the challenging world of non-union fractures, but also through a discovery process around his own health, his mortality, and really shifting the relationship that he had with his patients as he became one himself.

He uncovered valuable lessons about bone biology, nutrition, healing, resilience, recovery that we all get to benefit from today. So Ben, welcome. I'm so delighted to have you here.

Dr. Weitzu2019s Hip Fracture and Non-Union

Thank you so much, Heather. Well, I just want to start kind of at the beginning of your, your injury, take us back to what happened. And then I really curious about that moment when you realized like you were not going to follow a normal path to recovery.

Right. So I, just wanna say as, as an intro. Many functional medicine practitioners get into functional because they have a problem, they a gut problem.

They have something that doesn't heal. And so they go down a functional journey. I've been to conferences where they try to help you become a better speaker and they say, you got to talk about your journey, your crisis, and I never had a crisis.

I lived a relatively healthy life and despite minor things, I now have had my major health crisis. So Halloween of 2023, i'm handing out candy to kids and I've got a bowl of Halloween candy in my right hand and i've Got the dog's leash on the left hand And we have a very enthusiastic dog that would love to jump around and play with the kids, but we can't allow that so And I decided to just have socks on on a wood floor.

So I had no traction and I was actually backing up from the door and the dog pulled my leg. You know, I twisted my legs went straight out and went right down on my right hip.

And my wife was there and she said, help you up. I knew something severe had happened, but I wasn't quite sure. And then I looked down and my right leg was turned out.

My foot was churned out and I thought, that's funny. I think I'll just pick my foot up. And I couldn't pick up my feet up and at that point I told my wife, you better call the paramedics.

So I broke my leg and so I went to the emergency room and the next day I had emergency surgery from a trauma surgeon. I had a big debate. I called an orthopedic surgeon I knew when I was in the hospital and said, you know, Gary, what should we do?

Should I let this trauma surgeon do it? Because he's an expert at trauma. But he is not a hip surgeon. And then we discussed and I talked to a hip surgeon.

Well, hip surgeons are used to doing hip replacements and fixing certain other things, but they're not used You know, there's no time to wait because you can't stay in intensive care for days on end.

And if the insurance didn't cover it, you'd be paying like $50,000 a day given our health care system, which is probably a topic for another discussion.

But so I elected to have the trauma surgeon do it and he did the surgery. He put two steel rods inside my femur that crisscross and hold the bone together.

Unfortunately, After the surgery, what was supposed to happen is that the two bones were supposed be touching each other so the body could meld it. But unfortunately, there was a gap.

And so for whatever reason, I was waiting for the gap to close. So once a month, i was getting another x-ray and every time there's still a cap. Even though I'm feeling a little better, so I knew some sort of healing was probably occurring, but it wasn't bone.

So then at that four month mark, what am I gonna do? So I saw a consult from a couple of different orthopedic surgeons and I was told at point that I'm gonna have to get a revision surgery.

And so that meant pulling the steel rods out from inside my femur. And of course, I'm sure the bone would have formed around it. So they'd have to chisel them out.

Then I had to have a hole in my Femur and, and then they wanted a steel rod down the outside with like 15 screws. and I said, you know, i'm not going to do it What are my options here?

Oh my gosh, anything but that. Yeah. Well, you know, unfortunately the surgeon I was talking to said, well, if you don't do it, your leg's going to collapse.

So, You know unfortunately that means that, 99% of most people would have just gotten a revision surgery, but So he said to me, look, you got to get this surgery.

If you don't get the surgery, your leg's going to collapse. And I said, Look, You don' know that. and if my leg collapses, I'll be back, but I'm not going do it.

So I then came up with the strategy to Get my Leg to Heal. I talked to a bunch of different clinicians I know I had already known about specific medications that help bone formation.

So when it comes to medications that stimulate bone or medications are used by patients with osteoporosis, they fit into two categories. And most people are familiar with the medications from the one category, which we can call anti-resorptive medications.

So what that means is when you understand bone physiology, you realize that there is osteoblastic cells that are constantly building up bone and osteoclastic cells at a breaking down bone.

And this occurs throughout your whole life. We can consider an analogy would say, brain cells, which we, you know, we're told you have all the brain cell is you're going to have, and you just going go downhill from the time you are 30. And it turns out that brains regenerate and bones regenerated throughout your life.

It's just a question of the balance. Do we want to tip the balanced one way or the other? And I needed to tipped it towards bone healing. I knew that there were, so most of the drugs are called anti-resorptive drugs.

So they block the osteoclastic activity. These are drugs like the bisphosphonates, like Fosamax and Actinel and Boniva, and so they blocked the bone breakdown.

Anabolic vs. Anti-Resorptive Bone Drugs

So you end up with more bone. The problem is that you're basically the osteoclastic cells that do the bone breakdown. You're like the cleanup crew that comes in at night.

What most people don't realize is as you go through your normal days activities, you are actually breaking down bone And you want to do that. There's an upside to it.

Absolutely. Yeah. It's like breaking down muscle. You know, people go to the gym, they think they're building muscle, you don't build muscle in a gym you break down muscles.

But then the body rebuilds it stronger afterwards. The really building stronger afterwards is so important, right? Because if you don't break down bone, your DEXA scan looks better.

Your x-rays of bone density appear better, but you actually have more fragile bone. This is a lot of people find this very counterintuitive. And it's scary to think like, oh, actually I'm at higher risk of a fracture, even though my bone intensity appears better Absolutely.

So taking a drug like that, I'm not a big fan of those drugs necessarily, but it certainly wasn't going to be indicated for a non-union. After four months, they said it's a Non-Union.

It's not going heal. That's because statistically, You know, but I never consider myself a statistical average person anyway, so there's a limited number of drugs that we could call anabolic bone drugs, meaning they stimulate osteoblastic activity to cause new bone formation.

And so I did some research. So I had to find, I found a couple of meta-analyses that showed that a drug called Forteo had been shown to be beneficial, not in all the studies, but in some of the study for non-union.

And, so, this is a synthetic form of parathyroid hormone. It's been around for a while. There's some possible risks with doing it for long period of time, like more than two years.

Not in humans, but in rats, there's has been some increase in bone cancer. So meaning you're just revving up the

bone formation so much. And with parathyroid, so parothyroid hormone controls calcium in the blood.

And it's interesting that you say that, I'm a little confused. I want to dig into this because when we see elevated PTH and elevated blood level of calcium, oftentimes what's happening is that the Pth, the parathyroid hormone made by the para thyroid glands that sit behind the thyroid, but actually aren't related in thyroid to thyroid function.

They send out PTH, or parathyroid hormone, and it can elevate whenever Pth is high. And then the half-life of parothyroid is like 15 minutes. It's very quick.

Right. But a lot of people will miss a parthyroid adenoma because it's gone so quickly, it won't always be elevated, but it could be elevating in fits and spurts.

Then it is pulling calcium from bone. So one of the signs or symptoms of a parathyroid adenoma is osteoporosis. So this is a little counterintuitive to me that a medication that mimics parothyroid hormone would be helpful for bone.

I want to take a moment to share something really exciting with you. This is something that's been a long time coming for us. At Solcery, our mission has always been to make dementia rare and optional.

To give people real tools, real answers, and real hope when it comes to brain health. But one of the biggest barriers we've seen over the years is access.

So many people need this care. They're motivated, they're ready to do the work, but they simply haven't been able to afford it. And this is why I'm incredibly excited and proud to share that we are now participating in Medicare's Guide Program.

This means that for the first time, eligible patients can receive ongoing support for cognitive decline, Alzheimer's and dementia through Medicare, with significantly reduced out-of-pocket costs and support from caregivers.

We are not just opening the door, we are expanding our team to meet this need. We now have two new nurse practitioners trained in our functional root cause approach to brain health.

They're working alongside us with our teams to deliver this care in a way that's personalized, comprehensive, and deeply supportive. This is about reaching more people earlier and staying with them longer on their journey.

It's about supporting caregivers who have been carrying too much for too long. And it's about making sure that the cost is no longer a reason that someone doesn't get the care that they deserve.

If you or someone you love is experiencing memory loss or cognitive decline or has been diagnosed with Alzheimer's or dementia, I want you to know that there are options and that now there's more access than ever before.

You can learn more and see if you qualify by visiting salseri.com or calling 760-385-8683. This is just the beginning and I'm so honored and excited to be able to bring this announcement to you today.

So if the medication was like infused and was in your system all day long, it would have that effect. But when you take the injection, It's a subcutaneous injection.

It is bumping it up and actually stimulates bone formation. Oh, interesting. It's been on the market for a while. And so I got a prescription for that and started taking an injection of that every day.

The activity for Fortale peaks at about five, six months. So I decided I was going to do it for as short a period of time as possible where I could potentially get the maximal effect.

So, I ended up doing it five months and I also elected to human growth hormone to put my body in a state of

healing. No, I actually got human growth hormones from a compounding pharmacy and I took two IUs five days a week.

Yeah, the conventional medical doctor didn't want to prescribe it, but one of my integrative doctor friends did. And so I think what you're doing, it sounds like both of these maybe would potentially have this side effects risk profile of potentially stimulating cancer.

And that makes sense here because what your trying to do is promote growth, right? A human growth hormone that anything that's going to signal bone growth specifically.

But all of you, and that why you mentioned like this potential side effect of bone cancer because you are stimulating growth and when you have something to repair, you really, really want that.

Right. And a potential risk for cancer later on is like, probably not that big of a deal if what you need is for your, a union, that union. Yeah, you know, it's interesting because this kind of parlays into the whole discussion we have about longevity for so many years and you have practitioners out there saying, anything that promotes growth, mTOR, it's bad, and when longevity medicine first got started it was all about promoting growth and everybody was doing HGH and there have been a fair number of studies.

In fact, the first study that actually showed improvement in biological aging use growth hormone as the Fahey's study as one of the measures. But it's a question of balance.

You need a certain amount of growth and regeneration and rebuilding because you don't want to fall apart. possibly cancer. So there's a healthy balance that we need for these things.

At this point, I need to put my body in bone growth mode. I also used a bone stimulator directly on the area and it was an ultrasound one and I used it twice a day.

And I took all the bone supplements. So I bumped up my vitamin D to 10,000 a day. I've been monitoring my Vitamin D for years and I get my Vit D up to about 60, take in five to ten thousand and If I'm not super consistent or don't get much sun, it'll drop down to 40 or 45. And so I want it to be at the upper end.

So I said, okay, let's do 10,000. Now I've also become convinced that MK4, which is the form of vitamin K2, is probably the more beneficial form. Vitamin K is super important for bone formation.

Supplements for Bone Healing

Yeah, for anyone with osteoporosis, that's the takeaway here today is the MK4. Are you using the Ultra K2? Is that what it's called from SFI? No, I'm using the one from Designs for Health, and it's their BRF bone regenerative formula.

It's 45 milligrams. Most people are taking K2 at 50 or 100 micrograms MCG, but this is milligrams, so a thousand times that. Okay, let's just underline that for everyone.

Microgram dosing of K-2 is not enough for osteoporosis, for bone regrowth. Wait, what Dr. Ben is talking about here. You need milligram dosin. And I've heard anywhere from 45 to 90 milligrams of K2.

So a lot of people are taking the D3-K2 combo products. That is never going to have enough for bone health. Most of them are also doing the MK7 version of k2 and that's the popular version and people touted as more effective and yet there's a lots more studies for bones formation for MK4.

And if you look at the form that vitamin K2 exists in most of the organs in the body other than the liver, it's in MK4 form. including the brain. So yeah, it's important for brain, important, for bone health.

Awesome. Yeah. You got on this whole stack, so you said vitamin D, the MK4 version of K2. Boron. And then

boron, and so the minerals, a mineral stack.

Yes. Talk us through that. A magnesium, borons been shown to be something beneficial for a bone. Health. It's also been, shown be helpful in increasing free testosterone and So there's a great article by Lara Pezzorno.

She wrote years ago called nothing boring about boron. You can check that article out. she wrote a book about osteoporosis and bone health. And I also took calcium magnesium and.

So when we come to calcium magnesium, there's lots of controversies as there is for a lot of things in nutrition. And I had stopped taking calcium for, I hadn't taken calcium, for couple of decades because everybody became afraid that calcium is going to increase heart disease.

And the reason why calcium was even studied in terms of heart disease is because there were a number of studies that showed that taking calcium supplements or consuming more calcium actually helped lower blood pressure and had other beneficial effects on the heart.

And then there were a couple of studies that seemed to show that it was harmful and the worry was that would cause calcification of the cholesterol leading to plaques in the arteries leading heart attacks.

And I think for the most part, that's not correct. Yeah. Also, with what you were going through, some extra calcium probably made a lot of sense. Now, you mentioned boron, but I'm curious, like with strontium, vanadium, silica.

I did stromium citrate. Yeah, okay. See, we're doing other minerals too. You know, what I tend to tell people, and I want your pushback, like you've been through this personally, I think there's a happy ending at the end of this, but I, want to understand, you know I wanna have this conversation and flesh this out, because what i typically tell is take a mixed mineral, take like sea salt, almost encapsulated sea-salt, in these ratios that our body knows what to do with.

And whenever we have like a ton of calcium all at once, I do worry that it's almost at the expense of the ratio and magnesium, right? If you have, and I guess there's these different debates about like, well, why are we mineral deficient?

Is it because the soil is depleted? You know, in some areas of the world, there is more of one type of mineral versus others like selenium. There's more selinium in certain soils so that people in those areas won't be as degraded.

there's more good stuff, there are more bad stuff. Lithium being a big one. So when you're getting a mixed mineral, I guess my thought is our body knows what to do with that.

We evolved with sea salt. coming into our system in the ratios that it naturally occurs. And so whenever you take sodium really high, like in canned foods and preserved foods, now all of a sudden you end up with high blood pressure.

But sea salt actually modulates blood, pressure because it has magnesium and potassium in it, which can bring high pressure down a little bit and low blood So you actually get better balance in the system if you're using a mixed mineral.

And you had a non-union fracture that needed to heal. So extra calcium, magnesium, some of these specific minerals for bone health make sense temporarily.

But do you think for someone who is a post-menopausal female with osteoporosis, how important do think it is to think through these mineral ratios? So I think, first of all, I think it does make sense.

I thing most of us are not getting enough calcium in our diet unless you're eating lots of dark green leafy vegetables. A lot of are us not eating dairy partially for gut problems and because of other issues with dairy and

there may be questions about whether that calcium and dairy is really that well absorbed.

And so I do think that massive amounts of calcium probably don't make sense. But I think if you look at the studies on calcium that made people worry, first of all, the first thing you have to think about is when it comes to a plaque in your arteries, or when comes the cholesterol in arteries.

There's two kinds of plaque. They're soft plaque and there's hard plaque, and the hard plac is calcified. And the biggest risk is the soft plac. So one of the benefits that say statin medications have and very controversial medication, a lot of people in the natural world don't like statins, but they tend to calcify the plaque.

And so some patients will see their coronary calcium scan get worse, You want your plaque, first of all, you don't want any plaque. You wanna have zero plaque but if you do have plaque it's better that it be calcified because it is a soft plaque that breaks off and forms a clot that leads to a myocardial infarction.

Calcifying your plaques is generally not a bad thing. And taking calcium is not going to make more cholesterol deposit in your arteries. It's a totally different mechanism.

And when you look at the studies that showed some risk with calcium, they also didn't use vitamin D and vitamin K and magnesium and so you know you need vitamin d to direct the body to take the calcium and bring it into the bones and the vitamin k to make sure it doesn't end up in the soft tissues like the arteries.

Yeah. So it's important that these all, they collaborate, right? Like they complement each other. And so it is not just about… I think taking in, say, four or five hundred milligrams of calcium with some magnesium and vitamin D and K several times a day, I Yeah.

Awesome. Take it with a meal because you want the hydrochloric acid from the meal to help you break it down. We used to think it was better to take it at night, but I think its probably better take with meals.

Recovery, Rehab, and Exercise for Bone Strength

So how long did you do all this for? You're swallowing a bunch of supplements. five months after the four months, so a total of nine, and my hip ended up healing 100% with no pain, no restrictions, all limitations.

There's the happy ending we were looking for. But it took, I think the point of your story, if I can just extrapolate this for other people, is that a surgeon has a surgical tool.

What they're going to want to do is another surgery if the first one didn't work. And the question becomes, is there something less invasive I can do?

Is there a reason that I'm not healing? Can we work with someone, you know, if I cannot do the research, I cant make sense of it myself, can we with somebody who can help me think through this so that we can really explore, like, what are the things preventing my body from doing what it does best, which is healing.

Does it need more nutrients? Do we need to get toxins out of the way? Right. Do you need infections out the ways? We need rest. What is the imbalance that's here preventing the body from healing itself?

There was another interesting discussion that we had along the which was when we decided or when it was decided that it is a non-union. Was any healing actually occurring?

Was there a fibrotic tissue that was closing the gap? I was convinced that there must have been, it was a CAT scan that seemed to show that. But then the question was, I talked to several experts, is that a good thing or is it a bad thing?

And I, you know, my doctor said, well, think it might be a thing because I had a non-union in my wrist and to get it to heal, we had to scrape out the fibrosis to allow it heal.

And then I talk to another friend of mine who's the top physical therapist at USC and he said no, no. Your body's trying to close the gap, so it's going to put fibrotic collagen to start to closed the cap and then later turn it into bone.

So I also took supplements to help promote collagen formation. I took collagen, I take glucosamine and chondroitin. And I'm a big supplement guy and I don't have a problem taking 20, 30 pills at a time.

Vitamin C is important for collagen production as well. Yeah, big believer in vitamin C. We always leave out vitamin c. You know, we go for the exotic ones, but Yeah, it can make a big difference.

And I'm sure you were eating well. You were resting. Of course. I was doing rehab, you know? Yeah. One of the things that happens after hip fracture is a lot of people go downhill.

In fact, there's a high rate of… Death….people dying. Yes, absolutely. So I wasn't going to let my condition go down hill. After the hospital, I went to a rehab facility.

They told me it was going be super vigorous rehab. The best place. It was okay. I'm sure it's better than a lot of the places, but after four or five days I was out of there and I took my walker to Gold's Gym and was working out.

You probably couldn't get in the pool at that point. But did you? I am not a pool guy. Okay. Yeah. So I did use a vibration plate to stimulate the bone before I could really do any leg exercises.

but I I walking around on my Walker and in a crotch and It was a big ordeal, but it's behind me now. And now, the one thing I never did, which is interesting, is get a bone density test.

Why not? Have you now at this stage? I still have it. You know, I do a lot of testing. I thought, do I really want to know? Because the word is, if you fall and have a hip fracture, you probably have low bone Now, I personally think I just happened to fall at the right angle, landed right on that greater trochanter.

I don't have a ton of fat, so it landed on right that bone. And I didn't brace myself. So I think it was just freak. But I thought, you know what? I'm just going to treat myself like I have low bone density.

OK. As soon as I could start doing leg exercises, when it comes to exercise for bone So there's a lot of controversy about this. And a lotta people think that walking is enough, or using three-pound dumbbells.

And unfortunately, that's not been shown to be the case. A lot of studies that have looked at exercise have not shown a lot a benefit. And the one set of study that has consistently shown an increase in bone density and reduction in fracture risk are the Lift More trials from Australia from Dr.

Belinda Beck, who I had on my Rational Wellness podcast. And so her protocol involves doing squats, deadlifts, overhead presses at five rep max. That means as much weight as you can possibly lift for five reps.

So, you know, You got to put down those three pound dumbbells and you might have to do 150 pound dead lifts or more. Lift heavy. Yes. And then the other thing you have To include is some ballistic activity, which is scary, but Define ballistic activity.

Yeah, something where you're in the air and landing and loading your bones. So she has patients jump up onto a pull-up bar and drop down. Like a burpee kind of maybe?

No, more dramatic than that. So what I did was I just started to slightly jump in the air, just slowly leave the ground higher and higher over time. And now I continue to include like I do my leg routine today at gold and I get up on like a 24 inch block and just jump down and do that repeatedly.

Oh, great. Good. Okay, that's helpful. I mean, for everyone listening, work with a trainer. Work with someone who can help you make sure that you don't get hurt.

Absolutely, 100%. If you're going to do some kind of ballistic activity, I recommend working up to it slowly. In fact, probably the first thing to is to just go up on your toes, And drop down.

We call that a heel drop. Yeah. And that's great after a big meal to help you digest too, right? By the way, it's also a treatment for hiatal hernia. You drink a bunch of water and you do some heel drops and it pushes your diaphragm down!

Just use gravity as medicine. I'm curious, Dr. Penn, when going through this process, How did it change how you relate to and work with patients? Well, I feel like I know more about bone health.

And I think there's a lot more thinking about how do we treat patients in terms of pharmaceuticals for drugs, for osteoporosis. Traditionally, you're most likely, if you go to your doctor and you get a bone density scan, and by the way, we could have a whole discussion about bones density scans, because there are a lots of things to know about that.

Well, let's do it. Let's dive in. Okay. So let me just finish this first. Most likely, they're going to prescribe a bisphosphonate because those are the most common drugs.

And the newer thinking is you use an anabolic drug first This anabolic means stimulates growth rather than stops breakdown. Exactly.

DEXA Scans, TBS, and Bone Markers

And then because when there's an increase in bone formation, the body will tend to increase the bone breakdown, so when you stop, you do a bisphosphonate or you a prolia, which is another classification of drugs that blocks the bone breakdown.

So like a common combination that is being used is a drug called Avista, which is another anabolic drug followed by Prolia, so that you ramp down the bones breakdown Now, I think there's a better way to do it, which is what I did, by testing.

Western medicine does not like to test because insurance doesn't want to cover it. Because you didn't do bone density testing, right? What you did was blood testing?

Yes. So like a P1NP and osteocalcin, beta cross-laps, those ones? So to top it through those. Yeah, use the CTX and the P-1-N-P on the osteocalcin. So the p1np stimulate is measuring bone formation, and a CT-X is, measuring, bone breakdown.

Okay. And so if you go, if someone's going to their doctor, it's ctelopeptide, right? Is what ctx stands for and p1 and P stands. You know, I actually wrote it down.

It's a long name. Here it is. Yeah. it stands pro and, and this is the short version of it. Pro collagen type 1N terminal propeptide. The CTX is C-terminal telopeptide of type 1 collagen.

Okay, so if people know to ask their doctor about this, how can they track changes over time? Because a DEXA scan is what we use for bone density, right?

And you don't want to look at that more than every two years because you're not going to get enough of a signal on those images. So what you are suggesting is basically there are things that we can look in between to understand if our bones are going in the direction of osteoporosis or if they might be improving even.

Exactly. And so how would someone talk to their doctor about this? Would you want to look at them every six months? What would the ranges be? How do you interpret it?

Well, it depends what you're doing. So if you are going to be taking medication, really important to get it done first.

And have a baseline. Yeah. And then I would say two or three months in to see what's happening.

Like if you're taking a drug and you are trying to increase bone formation and don't see the P1NP going up, then maybe it's not the right drug for you.

So, you know, we tend to just do things. You know? You have an infection. Here, take this antibiotic. How do you even know it is a bacteria? Well, insurance company doesn't want to pay for it.

Yeah, and I don't think that those are particularly expensive, right? They're maybe a couple hundred dollars, but they're not thousands of dollars. Absolutely.

Yeah. So, you know, as we're aging, bone health and strength becomes increasingly important. When you, especially through the lens of your experience, what do you think the biggest mistakes people are making when they are trying to protect their bone or think about treating osteoporosis?

I talk to a lot of women who think that doing three-pound dumbbells means they're putting stress on their bones, and it's just not. What about the weighted vest?

I see a lotta people walking around the neighborhood with the weighted vest. Do you think THAT'S enough? Yeah. I don't. And the studies haven't shown that to be the case.

So I think something like the good old-fashioned deadlift is, can be super beneficial. You have to load the bones and then you need some bit of ballistic activity, I think as well.

Now there, there are, you know, use the vibration plate because at first I couldn't, do a squat, but, and I, think that gives some stimulation. And what about people who say I can just do the Vibration Plate and that's enough for my bones.

Do you think. That's true. It's not been shown in studies to really have a significant enough effect. Okay. And then what about supplements? What if you just take the supplements, could that be enough?

I don't think so. You've got to tell your body what to do. The way you tell you body, what you do is you put stress on your bones and the body reacts by making the bone stronger.

More resilient. And do you think there's a place for bone, for bisphosphonates, anything in that category that stops bone breakdown? Yes. So what you should do is if you have osteoporosis, consider talking to your doctor, consider doing an anabolic drug and for a period of time, six months to a year, something along those lines.

And then when you stop, see if your bone resorption markers go up, and if they do, then use a bisphosphoronate. But the protocol now is to just automatically use abisphosporinate So sequence them in a way that promotes actual good quality bone production.

You need that cleanup crew to come and clean up the junky bone. Yeah, absolutely. I am curious, you know, with how you're doing now, doing well, and what did your recovery teach you about patience, resilience and healing that you share with patients?

We can never forget the amazing ability of the body to heal itself. And really, we need to just support it, right? I know you wanted to talk about the DEXA scan.

Yeah, let's do it. Let's dive in, because I want people to understand how to evaluate this for themselves. Right. First of all, you've got to make sure you're being properly positioned in the machine when you getting the dexa scan, and that doesn't always happen.

There's supposed to be a cushion there so your feet are slightly turned in and you should, if you get a DEXA scan and then you another scan a year or two later, it's ideal if it is on the same machine because machines can differ.

Yeah, I've learned a lot of this looking at brain MRIs. If you have a 1.5 Tesla machine versus a 3 Tesla MRI machine, you are talking apples and oranges.

You cannot compare them. And although this is an X-ray, it's slightly different. It's a little bit easier. you really do want the same sequences, the x-rays, same positioning.

We really want to limit the variables between those two images. Otherwise, really hard to compare them. And then if the patient happens to have scoliosis, that can change the reading because you're not seeing a relatively flat spine.

You're seeing rotation. So that could skew the findings if they have osteoarthritis and bone spurs. That can make it look like there's more bone when there is not.

If there are surgery, then that all can affect it. Wow, a lot of things. And then when you get the findings, they'll tend to give you this brief report and it'll typically give a few things, it will tell you your T-score and they will compare you to a 30-year-old and give your a reading for your hip and your spine.

But as for the complete printout, It should be like five pages or so and should have a little diagram showing exactly how they collimated it and what they measured, because they don't always do it the way it's supposed to be done.

So you want to make sure it is done exactly the right way, at the part of the hip, the same part as the spine, etc. And then if the lab offers, you wanna look at not only bone density, but the quality of a bone.

Well, so I've had a bunch of patients recently who, you know, especially people on GLP-1s, they're getting their body composition tested. And they tell me they've got a DEXA, that they are getting a dexa.

But they go to a body-composition thing that's like either a pop-up in a gym or there's a mobile unit that comes around and they get a package of six and are going to look every 12 weeks as they were losing weight.

And they tell me that there's a DEXA on there. But what you're describing is something much more sophisticated, much, more nuanced. So you want to ask for a trabecular bone score.

What does that mean? What is that indicate? Okay, so that's gonna measure the quality of the bone, bone resilience, which has a lot to do with its ability to resist fracture.

So it's a calculation done and they have to have the software. Bone consists of cortical bone which is the outside of a bone and then inside the bones you have trabecula which are these cross hatches that gives a bones a lots of its flexibility and strength.

And so you want to get that TBS score as well. And that will calculate your fracture risk by telling you how resilient your bone is. And then you can get a DEXA at almost any place that has an x-ray machine, right?

But it almost sounds like it would be better to be going to a bone specialty imaging center. Is that true, or is there a way that you could ask your doctor to order this more advanced DEXTA scan that would include this tribecular score?

Yeah, you just have to call the lab and see if they have the software for it. They have buy a software package. Got it, got it. Okay, so not every place is going to have that.

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It's basically not a small rural hospital or something. Or imaging center. Yeah, the other thing that we've seen come up with that is, like you mentioned, you want to use the same machine year after year and maybe have even the radiologists reading that or the AI system or same software involved.

And what we saw, at least with the NeuroQuant Neural Reader software for brain MRIs, is that one imaging center would have it for a year and then they would lose their software license and so then, they wouldn't be able to run it the next year.

It's really, it's nuanced, right? There's a lot and I think that that speaks to the value of the P1NP and the CTX scores. Is there a way to get out of nuance of needing imaging?

So get the imaging done, get your DEXA scores done. Understand that there is some complexity to to that, do your best, get the advanced DEXAs done with this tribecular score and make sure that they put you in the right position and do what you can to evaluate for that.

But don't get overwhelmed. Use those blood biomarkers in between to understand what's going on with your bones. Does that feel like a fair takeaway? Absolutely.

Yeah. And then K2, MK4, that's the other big takeaway, right? I'm curious, you know, after 40 years in practice and hundreds of podcast interviews, this personal journey, adding to that, what are you most excited about in the future of bone health and really like medicine in general?

I think we're on the verge of increasing longevity. So I think we're trying to figure out the matrix and I feel like there's hints at what's gonna work.

And so I that we are close to new developments that are gonna help us to be able to live longer, healthier lives. There's all sorts of advanced strategies that people are using, plasmapheresis and ways to cause regeneration.

So, I thing all that stuff's really exciting. And how long would you want to live? Well, the key is, can you be active? Right. Healthy. Yeah. Who wants to be in a bed not able to do anything?

Yeah, well, what brings you the most joy at this stage in life? What would want be doing if you could live forever? I don't know. I really think about it that much, but I guess I want continue to help people like I am doing.

You know, that gives me a lot of satisfaction, feeling that I'm contributing to the world. Keep handing out Halloween candy. Yeah, create more diabetes.

Hopefully not break any more hips though. What fun. Well, Dr. Bennett, always a privilege, it's always fun to catch up with you. Thank you for sharing this deeply personal story and all of the insights.

You know, I think that is really one of most powerful aspects of this conversation. It just reminds us that Healing isn't always linear, it doesn't go the way we expect, and even a very experienced healthcare professional can find themselves in this unexpected labyrinth that you need to navigate with unexpected challenges.

But they often, this path becomes our greatest teacher. And so I really, really appreciate your willingness to share about the science, the research that you did, and the personal side of your journey so that it can really help someone else who's navigating a difficult recovery and both bone health issues that come up.

There's a lot of practical tools that that discussed that, you learned through this perseverance and dedication to getting through. So for our listeners, I hope that you've enjoyed today's conversation.

And if you have, please be sure to check out Dr. Weitz's Rational Wellness Podcast and also his extensive educational work in the functional medicine community.

You can go to my website, drweitz.com. Yeah, will you spell that for people? Yeah. DRWEITZ.com. Excellent. And so you can see all that Dr. Ben Whites has to offer there.

Until next time, thank you so much for joining us on the Think Well, Age Well podcast. Remember, it is never too early or too late to invest in your brain, bone, and body health for your future.

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Until next time, keep thinking well and aging on purpose.