The Bone Scan That Skips the Radiation and Tells You What DEXA Can't Transcript

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Introduction to the summit and guest

Hello. Hello. Welcome back to the Future of Menopause Medicine Summit. I am your host, Doctor Sharon Stills, formerly known as Mastering Your Menopause Transition Summit.

So this is our five year and five year anniversary in collaboration with Doctor Talks, where I'm sharing the latest and the greatest and having amazing conversations and having you eavesdrop.

And today, again, I'm like a broken record because I'm excited about everything. But I'm like super, super, super excited about this because I've got Doctor Kimberly Zambito in the house.

She's an orthopedic hand surgeon, and she is also the first physician to bring REM's Echo Light technology to the United States. And we're bringing Rems Echo Light technology to Lasting Wellness Center.

We just unpacked our box. By the time you guys are listening to the summit, we will be up and running. But I'm so excited to learn from doctors and veto about this technology.

And if you've never heard of and you're like, well, what is REM's Echo Light? This is all about bone health. And I know every day in my office, woman after woman is concerned about her bone health and bone loss.

And so this is a technology that comes from Italy that is going to be something you want to know about and something you want to start utilizing for your own screening.

So welcome to the summit. We are super excited to have you here. Thank you. I'm so excited to be here. Yes, yes. So Rems Echo Light I guess I have so many questions.

But to start, like how did you find out about it? Because this is from Italy. And what made you bring it over to the States to be the first physician?

Yeah, I so I started using the technology in March of 2021 when I was in private practice.

How REMS Echo Light was discovered

I am an orthopedic surgeon, as you had mentioned. Now, I really just said specialize in hand surgery. And at the time, I was talking to one of my former partners who is in the longevity space and the bio bioactive type techniques.

What we were talking about is bone health. And he asked me if I had ever heard of this. Technology runs technology and, you know, said I hadn't at the time.

And so I started looking into it and I thought, wow, this technology is really fascinating. It's a technology that uses ultrasound. So it is radiation free.

It's easy to use. And in my opinion, it's easy to use. And the results happen right away. Patients walk out with a knowledge of what their bone mineral density is, as well as a fertility score.

So the technology gives us a little extra information when it comes to our bone health, because our bone strength is not just the density. It also has to do with the quality of the bone.

So let yeah, let's weed that out. So most women are told to get a Dexa scan. So can you explain like t score z score, what a Dexa scan does and then what the difference is and is there?

Does Rems echo light totally negate the need for a Dexa scan? Is there ever a need to still have a Dexa scan? I think that'd be a great place for us to just start.

Of course. Yeah, these are great questions. So Dexa stands for dual energy x ray absorb geometry. What does that mean. It's an x ray. The type of x ray uses two beams.

And then based on the calculations coming from information from those two beams, it gives us an estimate of our bone mineral density. That's what the depths of technology is in a nutshell.

In late laypersons terms, what happens when we generate a Dexa report is we get our bone mineral density, and then we are compared to either a 30 year old white woman, which is our TES form, or we're compared to people who match us, who look like us age, gender, and ethnicity.

That is our Z score. So there's two comparisons that are made.

DEXA basics, T-scores, and Z-scores

So I think that addresses your question with regard to what is Dexa, the t score and the Z score. Is there anything else that you would like me to explain with regard to that technology and what we get from it and how we use it?

Yeah, I mean, I guess the limitations of the Dexa. Yeah. So I think part of the limitation is how we use it. Right? We don't order Dexa scans till somebody at the age of 65 so post-menopausal age 65.

So when we're using that technology to compare us and make the assumption that we had the normal bone mineral density of a 30 year old back when we were 30, I think that gives us a little bit of maybe misinformation in terms of how to compare ourselves.

Right. I think it's best use when we compare over time with regard to how it's used. Dexa can be used in terms of making the diagnosis of osteoporosis or the description of low bone density, what we call osteopenia or normal bone density. Right.

And then oftentimes what happens is women get this number. It's a t score. Again, the T score compares you to a 30 year old white woman. And then they're told hey you got to take medications.

Right, right. And so is there ever a need for a Dexa if you're switching over to use the Rems eco light technology. Right. So Rems technology is compared to Dexa.

Obviously we've talked about Dexa for so many years. It is considered the gold standard. So when Rems technology was developed it was developed with Dexa in mind.

Like how do we compare this new technology to Dexa? If we're using Rems, you can use REM technology to follow your bone health over time. What I recommend to people who come to see me is if you're using Dexa, that's fine.

Use Dex and track your bone health over time. Track where your bone mineral density is over time. If you decide you want to use Rems, that's great, and if you choose it, you only want to use Rems.

That's your choice. It's just right now, insurance isn't isn't paying for it. There is a caveat. There is a temporary CPT code, which is a procedural code, but it doesn't mean it's going to get reimbursed.

So most places who are doing Rems are charging a cash fee to get the test right. Dex is are typically done every two years. Rems can be done every six months.

If you want to follow your bone health very closely. I think that's really overkill. Unless you're making some huge changes in your lifestyle to support your bone health, right?

So for people who have, you know, cost considerations if they want to get their Dex's done every two years because Medicare or their insurance pays for it, that's great.

Then you can do the Rems on the off year of Dexa. So now you have two ways of not monitoring your bone health over time. And if you see them trend in the same way, that should give you either peace of mind or make you scratch your head and say, hey, what's going on?

If both tests are showing a significant decrease in bone mineral density over time, so what makes Rems so much better than a Dexa? Yeah, so I don't say one is better than the other, right?

These are all tools that we use, and I don't because I practice medicine and most of my patients are using insurance. We also have to consider cost containment and what's affordable to them.

Right. And then on top of that you also have to consider accessibility. So Dexa is very accessible to most people. Rems Rems machines here in the United States are a little less accessible.

So I careful to say one is better than the other.

REMS vs DEXA and scan frequency

But in terms of information that is gleaned from the tests, the Rems goes one step further and shows a representation of your bone quality through the fragility score.

So that's an additional piece of information that you get that you don't get from a Dexa. So in a in a Dexa scan, you're just getting this bone mineral density, but you're not being told if it's healthy bone or it's porous bone and it's not really, you know, going to support you.

And it's on the verge of breaking where in Rems you get the bone mineral density, but you're also getting the fragility score. So can you talk a little bit about what how this fragility score is calculated and what it represents and why?

That's a super helpful piece, additional piece of information? Yeah, that's a great question. The fragility score is a representation of the microarchitecture of the bone.

So the way the technology actually works is you have an alter sound wave that goes from the machine, interacts with your bone, comes back to the machine, and then the machine analyzes that information.

So it compares the age Imai. And it puts you into a five year like category based on BMI. So what the question the machine is asking is do the sound waves coming from your bone?

Do they match people who have had a fracture, or do they match people who have not had a fracture? So the fragility score is located on page two of the report.

When you look at page two of the report, you'll see a graph and you'll see it's color coded red, yellow and green. If your circle with the crosshair on your report falls in the green, then your bone matches the quality of people who have not had a fracture.

If it is in the red it met, that means it matches bone quality of people who have had a fracture. And the yellow is kind of like a mixed bag. Some people have fractures, some people don't have fractures.

But that's how I like to explain the fragility score and how to use it over time. Now there is a research study for for all those research heads who like to get out there that was published in 2023 by Doctor Paula Pisani, and it shows the fragility score was better at predicting fracture risk than the BMT, whether the BMD mineral density was obtained from Dexa or from Rems.

That that answers my next question because I was going to say, you know, kind of like with the Dexa, right? How important is to know if you're dense but weak as opposed to with the Rems knowing your density?

So if you were following someone, is it possible for the fragility score to improve while the bone mineral density is not improving? I can't say I've seen that.

So typically they trend together. Yeah. And what are some of the things that you have found useful to help women improve their fragility, score and their bone mineral density?

Well, that's a great question. Right now, we really don't know what's going to improve the microarchitecture or the bone quality. The research simply isn't there.

All the research is based off of bone mineral density.

Fragility score and bone quality

Now, there might be a handful of studies that use opportunistic CT to look at the microarchitecture, but so far I'm not aware of any REM studies that show certain things improve the bone quality.

Sounds like we're gonna have to study at my office. Yeah, yeah, I know there's plenty of things we do to, you know, change the bone mineral density. And now, does the Rems also differentiate between osteopenia and osteoporosis is similar to Dexa.

On page one of the Rems report, you're going to get bone mineral density. And the bone mineral density report is similar to that what you would see on a Dexa report.

So it breaks it down into your T, the bone density, your t score, your z score and then your classification osteoporosis osteopenia or normal. So you still get a T and a Z score with the Rems echo light.

You do. And can you speak a little to the T and the Z score for the woman who's watching at home and is looking at probably her her Dexa scan, you know, how does she understand the T score as opposed to the Z score?

Which one should she be? You know, really more concerned with? Well, these are the team scores. And the Z scores was really developed by a working group.

Right. So the T scores compare you your bone mineral density to a 30 year old white woman. Okay. Because at the eight around the age of 30 is when we reach our peak bone mineral density.

So when we use a t score, we're making the assumption that you, a woman, postmenopausal woman, was at a certain bone mineral density and then her at the age of 30.

And then the current t score shows you how many standard deviations you are away from the peak 30 year old bone mineral density. The Z score compares you to somebody who looks like you.

So somebody who's matches you in age, gender and ethnicity. And so should we even care about our T scores. So how much should a woman even care about her t score if it's only comparing her to a 30 year old and she's now 55?

I think this is very helpful. I do a webinar where I show people, grab and kind of explain. It's very helpful if you have visual aids for describing this, but when you look at a Dex scan or a REM scan report, what you're looking at is a graph.

And on that graph is bone mineral density and age over time. So what you're going to look at is you're going to see the peak right here. You're going to see three lines.

And we're making the assumption that at the age of 30, all women, whether you're a petite framed woman, an average framed woman, or somebody who describes herself as big boned, right.

We're making the assumption that everybody had the same peak bone mineral density at the age of 30. As time goes on, all of us are going to experience bone mineral density loss.

It's part of aging. Just like we get wrinkles in our skin. Our hair gets, you know, God's natural highlights. You know, there's changes that occur in our body.

And one of them happened to be that we're going to lose bone mineral density. So the t score is intended to show you where you are compared to where you were at age 30.

The downside to that is none of us had Dex's at the age of 30. So how do you really know where I was at the age of 30? I may have never been at that average peak bone mineral density.

Right. So while useful, I think there are limitations to using the t score. Z score is kind of nice because it shows us where we are compared to our peers or somebody who's like this.

But I tell people, don't get so hung up with those numbers, follow things over time. And it's more bone health is more than just a set score or rems t score.

Bone health trends, TBS, and earlier screening

It's about and I'm here's my orthopedic surgeon self coming in when I have somebody who has a fracture because people come to see me to get a fracture fix, I want to know what their balance is because more often than not, they fell right.

And so I introduced why did you fall? Well, I wasn't paying attention. Right. Well then any medication you take for bone health isn't going to fix that.

I wasn't paying attention part right. So there's an opportunity to work with people on situational awareness and being present in the moment. So while these T scores and z scores are helpful, they don't paint the whole picture.

So we should really be starting like Rems echo light scanning at 30 so you can have your own fingerprint of your bone health. I think there's usefulness to that.

You know, you don't have to worry about the cumulative effect of radiation with Dexa. So I think I think with Rems technology, there is an opportunity to start screening earlier and follow trends over time.

We're going to see trends like we reach our peak bone mineral density at the age of 30. We kind of level off around 40. And then menopause, perimenopause happens.

And that's where we have potential to see a significant change in our bone mineral density, with some women losing up to 20% of their bone mineral density over time during that that phase of our lives.

So if we start looking at things earlier, even at the age of 40, would be great because that's where you kind of plateaued. I think that would be better than what we're doing right now with Dec says at the age of 65.

Yeah, we do that with blood work with our contact regulations. And, you know, the earlier you can get your personal fingerprint, the better it's going to be, because then you're just comparing yourself to yourself.

And we shouldn't compare ourselves to others. We should just be, you know, looking at how come Harrison is the thief of joy, isn't it? Right? Exactly, exactly.

So there's also something called the TBS, the Trebek Bone score. Where does that fit in? Are you getting a TBS

with the Rems Echo Light? Is that what the fragility score?

Is this something totally different? That's a great question. So the TBS is a separate software package applied to Dexa. It does not apply to REM. So TBS trabecular bone score, it's used for the spine part of the Dexa.

It is not developed for the hip. So they look, they use the Dexa images, they look at the scale or the different shades of gray on the Dexa image, and then they offer a code or a number.

They sign a code or a number to that, and then you'll get information about whether or not you have degraded bone quality, partially degraded bone quality, or normal bone quality.

So there is something similar with Dexa in terms of getting information of bone quality, but it's only for the spine. With Rems, I would say it's comparison would be the fragility score, and we get information for the fragility score for the spine and the hip.

So both body sites. Okay, so you're getting more information with the Rems. Yeah. Yes. When compared to a standard Dexa yes. When TBS is applied the TBS is only for the spine, whereas Rems you get information on the spine and the hip.

And so this is technology that comes from Italy. And those listening who know me know I do a lot of things from Europe because in holistic health they're always far ahead of us.

So how prevalent is this in Italy? Has it knocked Dexa out of the playing field, or do people still get Dex's in Italy? It's been adopted as one of as the way to do bone health screening in terms of whether or not they're getting Dex's in Italy, I can't say if they are or aren't, but internationally, Dexa is the gold standard.

So I would imagine that that Dex is still around in Italy, but it is kind of thought to be the prevalent way or the most effective way to get your bone scanned.

It's been adopted by their National Health organization as the way to do bone health screening says a lot. And so is it scanning anything else? Is it doing, you know, fat and muscle mass and things of that nature, or is it just scanning bone health?

Right. That's a great question. So in short, it can it will give you information.

Body composition, treatment, and prevention

The basic package software package will give you information on body body com. There is a more advanced software package with Rems that you can purchase for body composition, where it gives you a more detailed breakdown.

So because we do in-body at our office, so does it kind of cover what an in body covers I don't know what an in body covers. Yeah okay. If you're doing body comp any test you're going to compare that you're going to maintain the same testing equipment.

Right. So you're not going to switch from in-body body comp to Rems body comp to see progress. So if you want to compare somebody's progress over time, you're going to do in body to in-body or Rems to Rems.

Yeah. Gotcha. And Rems is not a treatment. It's just a diagnostic. Is that correct? It's a diagnostic tool. And so your favorite treatments. So I'm not treating bone health I separated out my, you know, my orthopedic surgery practice and the services that I offer for a Rems scanning and education.

So I don't make any medical advice with regard to bone health. But I will tell you, as an orthopedic surgeon, you know, I can simply see somebody and fix a fracture, like a wrist fracture or I don't do General ortho in terms of fixing hip fractures anymore.

But I did about three years ago. Four years ago. I want to know why they sustained the fracture. Right. So from an orthopedic surgeons perspective perspective, I always ask, how did this happen?

And usually it's a fault. Well, how did the fall happen? Well, I was standing on my grandchild's little plastic thing to change the light bulb, and it flipped like I.

No matter what I do, any treatment I can offer in traditional medicine, is it going to help that right? So you really have to get to the root cause as to why, as an orthopedic surgeon, why a fracture occurs, right.

And in some cases it is people not paying attention, not doing fall prevention, having poor balance. Sometimes it's a medical condition that can cause a fall, like a drop in a blood sugar or drop in your blood pressure or what have you.

So there's many reasons why fractures can occur. So for me, from a treatment perspective, I want to know what happened, why it happened, and how do we address that.

Right. Because if the issue is false, you know, people not paying attention or their house is cluttered, no medication you take or that we can prescribe is going to fix that part of it, right.

So I think it's really important to look at a person as a holistic, from a holistic perspective to get that favorite treatment as you're asking me. Yeah.

So we do a lot of prevention for, for bone health from optimizing bioidentical hormones because we know not just estrogen but progesterone testosterone DHEA these are all oxytocin melatonin they're all playing a role in your bone health.

And so and then you know looking at obviously movement and lift and heavy things right. Without. But don't do that if, you know get help to make sure you're doing it right because you don't want to injure yourself and you don't want to like Doctor Zimbardo is saying, end up falling or losing your balance and things of that nature.

But that's so important. And then, of course, you know, your diet, optimizing your vitamin D, looking at your parathyroid hormone, as I find, parathyroid hormone can often be underneath a lot of issues with calcium regulation and so forth and bone health.

And it's not you know, we screen for intact PTA, we screen for ionized calcium, you know, on every patient to be sure. We also screened for hydrochloric acid deficiency to make sure that if you're getting calcium, you're actually absorbing that calcium, because we find that a lot of women are eating enough, but they're not absorbing enough.

And so, you know, you are what you eat. Well sort of. Yeah. You know, this are great points. You know, you're addressing people in a holistic nature, you know.

And you did ask what my favorite treatment. I think one of my favorite treatments, if I'm going to say is exercise. And it's not saying, oh, you need to do super heavy lifting or you need to do this, it's movement, movement and stimulating your muscles and maintaining your muscle mass.

I believe for many years that exercise is the fountain of youth. But just like with any good thing, too much of it is not a good thing, right? So especially as we age, it's it's one of those beautiful things.

It's like, oh, you know, you got to be focused and moved, but you get all these lovely rest days, you know, you're not going to the gym pumping it out seven days a week.

That would be that would be harmful. But, you know, I always say, like, what you're doing today is building the body of 2 or 3 decades from now, and I still want to be able to get down on the floor and play with my, I guess, a couple decades from now, it'll be my great grandkids.

But, you know, you want to be able to I never want to tell my granddaughters, I can't lift you up if they ask to be lifted up, because it's going to be too much.

So anything as we near the end, just to let the audience know again about the Rems echo Light. Obviously we're going to have one here in Scottsdale, but if you're interested in finding out your fragility score, which is super important to know the quality of your bone.

Finding REMS locations and closing remarks

If you're interested in not getting radiation and a cumulative effect, which you know, these are big things for my patients. We're very interested in that.

And you can't make it to Scottsdale. How do they find out? You know, where they can go get scanned near them. You would go to us.echolightmedical.com.

So Echo Light keeps track of locations where they have sold equipment. Gotcha. Okay. And then they could just go in and get a scan at one of the. How many locations do you know offhand are in the States?

I don't know I don't know. That's a question best left for Echo light. Okay. Well I'm going to go check that out. I'm curious to see, but we're excited to be offering it.

We're grateful I didn't say this at the beginning, but we're grateful for Echo Lights sponsorship of the summit. Without sponsors, we wouldn't have the summit.

So we appreciate that and we appreciate you taking time to be here with us today and just shed some light on what Echo Light is about and why we're excited to be bringing it here.

So this is so exciting. Sharon, thank you so much for having me. I really appreciate all your questions, and I'm so excited for you to start using this technology and empowering your patients and clients with more knowledge for their own health.

Yes, very, very important. So thank you. Thank you everyone for being here. And we'll be back with another talk. So stay tuned.