Medications And Bone Risk

What if I were to tell you that the common medications that we get put on all the time like SSRIs, PPIs, and even things like hypertension medications or things for high blood pressure could increase your risk for fracture and osteoporosis. So today I'm joined by Dr. John Newstead and he has a new version of his book out called fracture proof your bones and he has added almost a whole 'nother book of research and we are going to go in deep on medications and their impact to bone turnover, things that you can do beyond a DEXA scan to actually address not only whether you're losing bone, but actually be able to track your bone efforts over time and we go into a lot of other things about sleep and other areas of concern that either help make or break your efforts on building your bones. So join me today on Menopause Mastery.

Dr. Newstead or John, welcome back. You we were just on a few seconds ago talking about it was back in July July of 2024, which I don't know about you, but I was like it felt like I just talked to you, but that's how time speeds up >> [laughter] >> as we get older.

That's what you do. So I'm glad to have you back for sure. >> Yeah, it's great to be here. >> Yeah, so let I want to talk about this. So you just recently came back out with fracture proof your bones and and you have added all new chapters like it's almost double the size of the book that you originally created.

There's so much more data.

DEXA Limits And Fracture Prediction

Um and I want to talk start off talking about the um the stability and the accuracy of a DEXA scan, right? Because that's the I'm going to air quote this gold standard and traditional diagnostics of osteoporosis and we're going to talk about all those hazards, but one of the things that I I found interesting that you are really outlining in this book is the striking piece of data that when it's combined with other clinical factors, the bone density alone as a standalone predictive value for a fracture can drop to about 5% right? And so DEXA is missing so much of that picture, you know, and mainstream medicine is still relying on it as the gold standard. And so like I want to talk like I want to go in deep on what are the things you feel like we should be looking at.

Um I know several of them that are very much part of our wheelhouse from our telemedicine company and even the clinic, but I want to really dig into this because so many women are just lost.

>> It is a confusing not only for consumers and patients, but doctors are confused too. And there there multiple studies that have looked at that where doctors aren't sure how to interpret the bone density test or what conversations to have based on those test results and comfort they're not comfortable having conversations around diet and lifestyle and exercise because essentially if the conventionally trained health care system does not educate clinicians in any of those areas. In fact, even today, you know, in 2026, this issue of clinicians not getting physicians not getting educated in nutrition was something that was identified 20 years ago. That even back then they they saw that in research in in the gaps in medical education as a big problem. And even today, 20 years later, they get less than maybe half of a semester of one class, less than 25 hours of nutrition education. So they're just not comfortable in having that type of conversation. And when it comes to the bone density test, the challenge is is that when you're looking at somebody's T score or their Z score and then you're trying to understand what is the the real risk for fractures, they typically aren't understanding that there is not a very strong relationship between fractures and the bone density test result. And because of that, they are treating that number on the test and that's all that they're tracking and their numbers going up and so they're convinced they're doing a great job and in fact, the way that many health care systems are compensating and tracking success are based on that number on the test as well. So it's it is the standard of of care. They're following the standard of care, but we've known for 20 years that a bone density test predicts less than half of women with osteoporosis who will fracture.

Actually, it's 44%. A bone density test only predicts 44% of women with osteoporosis who will fracture. It's worse for men. Only 21% of men. But a study then looked at what if somebody's risk of falling was low? Because it's not just the number on the test, meaning your your your your score is low and so your bones are more brittle and you're just walking along and suddenly your your your bones crumble. I mean, that's not reality. Reality is is that 95% of fractures occur because somebody falls.

So we want to prevent people from falling and we want to increase strength and stability, but at the same time we also want to maintain bone strength and bone quality.

So the bone density test when somebody is when their risk of falling is low, meaning their their stability is good. For >> and men under 70 years old, if we kind of average the numbers, >> Mhm.

>> it only predicts about 5% of them that will fracture. So, it's even it's even worse than, you know, a a situation which is bad to begin with. And it actually is even less helpful in every organization that has looked at the data on just the bone density test alone has concluded that fracture risk depends on factors largely other than bone density.

So, any conversation around bone health and fracture prevention it has to focus on things other than that number on the test or they're just really missing the mark.

FRAX Scores And Fear

>> Yeah, and you know what I have found, you know, because I've had, you know, Living Well Dallas for 22 years and then Minerva, the telemedicine company, and we have a huge relationship with several different organizations with women you know, who probably for the first time getting diagnosed with osteoporosis and really trying to understand the landscape of what they can do because what I've found is they'll get a clinician that, you know, makes them do the DEXA or has them do the DEXA or they ask for it because they know that they're not going to get it until 65.

And regardless of what the number comes back, let's say it's a -1.8 on lumbar spine all the way to -4.4, the treatment is always the same, right? And the fear factor that they strike in those women are exactly the same.

>> Yeah. >> Exactly the same. And so, these women are terrorized, honestly. >> And I've seen that a lot, too. You're absolutely correct and it's a it's a big concern of mine and it's a big area of frustration for two reasons. First of all, that fear is often times misplaced.

And if you look on the bone density test reports, and I do this with patients because it's very helpful for them, towards the bottom of most bone density test reports, they give a a 10-year fracture risk probability based on FRAX and the data that that was entered into the computer at the time the test was done.

>> Mhm. >> And so somebody's 10-year probability of a fracture is 8% or 12%, which I've seen often, the opposite is also true. That means there's a 92% chance or or an 90 and an 88% chance that they're not going to fracture in the next 10 years.

>> Mhm. >> And as soon as I point that out to them, I can sort of see their shoulders relax. And I also have them take a couple breaths before I even start talking and I'm I put that bone density test in its proper perspective, like I already did.

What is its real predictive value? And so let's focus on things we can control. And yes, we want to bring that bone density test number up. We want to improve that, of course. But it is it is absolutely not the most important thing when it comes to predicting fractures.

And also, there's so many things that people can control. >> Yeah, I don't know about you, but you know, out of the multitude, cuz we have a I have a DEXA in my office, right?

Like we do those all the time. We've added other things, you know, blood work, the bone turnover markers, and

even REIMS, you know, cuz more data is better data, right? Is the way I look at it. When we can interpret and sort of extrapolate parts from it. But I you know, I don't know how many and I would say it's probably a handful that don't come back with at least at least a 7% fracture risk over a given period of time. Regardless of the results, there's always something there. Like there's never a zero. Have you seen a zero?

>> No, I mean I have seen for bone density tests, I have seen people with with out osteo come back without osteoporosis. >> For sure, but the frac score always has something.

Who Should Get Screened

>> The frac score has something because it's looking at age, it's looking at family history, it's looking at various various scores. And that's you know, it's interesting that you mentioned that because in the the recommendations for screening for bone density tests, the most conservative recommendations by the US Preventive Services Task Force, as you mentioned, 65 years old, or or you know, or if you have a a risk factor.

>> Right. >> You can get screened earlier. The challenge is is that if you if you ask, you know, 100 women, 99 of them, probably 100, are going to have a risk factor. And if they're not getting screened because there's a long list of medications, the most commonly prescribed medications cause osteoporosis and fractures. The SSRIs, antidepressants do. Acid-blocking medications, prednisone, anti-seizure medications, there's a very long list.

Many other diseases, if they have irritable bowel disease or any autoimmune condition, those are risk factors. If they've have cancer or had a history of cancer, those are risk factors. Not exercising and now sedentary lifestyle, that's a risk factor. Now we know ultra-processed food consumption above a certain threshold is a risk factor. And so, many more people should be getting screened. And even those that are that are, you know, according to that conservative guideline, are eligible for screening, 95% of them are not being screened.

>> I know. You know, it's the other thing I I think women forget, too, is what I like to call vertically challenged, cuz I'm barely 5'3. So, if you're vertically challenged and you are also really, really petite, your chances of getting into those higher thresholds, especially if you didn't work out and maybe you didn't, you know, like we weren't looking at those things when I was 18, right? You know, all of those things can also contribute to a, you know, likelihood of a bone density that may not may not have ever gotten to its highest possible place, cuz we weren't even thinking about it back then.

Early Risks And Protein

>> I get to in the second edition of my book, and the reason why I I wrote it is because I kept getting asked questions of of people that that I I was either able to answer but didn't include in the first book, or they were just excellent questions that I did not address in the first book. And so, I thought it was really important to expand it. So, I go into a lot of those issues in the second book of what what is it that it put us at risk factor when we're when we're younger, like anorexia nervosa or competitive athletes, the female athlete triad in young women is a big risk factor then for osteoporosis. And the eating disorders, like I mentioned anorexia. So, there are many things that that I think are important to be on people's radar. And one of the most important things is I believe raising awareness.

>> Yeah. >> That there might be an issue so that they can get the testing done because without the data, without the knowledge, you can't make good decisions.

>> Right. Right. And what you know, I think you pointed out in your book, like today's statistics are 90% of those who actually have a fracture were never tested or treated prior to the fracture, right? Like so, most of the time that's like This is how you found out you had osteoporosis. It's actually cuz you fractured.

>> Yeah, most people do not get get screened before. In fact, the first sign often of a problem is a fracture, which is why I like the recommendations from the Bone Health and Osteoporosis Foundation. And I'm on the corporate advisory round table for that association, is that anyone, men or man or woman at 50 years old, if they break a bone, should be screened with a bone density test. And I I think that's appropriate. In fact, I like any woman 50

years old, I want her to get a bone density test because I want a baseline because she is likely to start going through menopause soon. And at that age, her hormones are probably already started to decline, but she's not symptomatic yet. And I want to get a baseline. I want to know where she's at.

>> See, I have the feeling, you know, if we look at some of the data coming out of retrospective studies, you know, the the 10 million women study that came out with the end of 2024 or early 2025, looking at hormone replacement therapy and cardiovascular, several different, you know, disease states and looking mortality rates. One of the other things that we're starting to recognize is that there's an acceleration of bone loss that occurs long before the period stops.

That it actually starting to occur as that estrogen level is declining cuz you can still have a cycle and have low levels of estrogen relative to your original levels. And so we're starting to recognize that treatment probably should start before that. But we don't actually have a way to identify that, right? You you can you can do like FSH in the follicular phase. You can look at luteal phasing and and things but we don't have this bonafide hey when these things occur the labs look like this we need to start treating.

And I think it's you know a travesty cuz I feel like after all these years seeing patients come through Living Well Dallas that we probably need to scoot that early baseline even earlier or look at bone turnover markers to identify if we're starting to see particularly rapid osteoclast activity or you know reduction of osteoblast even too. Like what other things can we look at to identify maybe somebody who might be at high risk that it's going to accelerate in this time period before it looks like menopause.

>> When when we look at a bone density test that the T score is not valid for premenopausal women but a Z score is and that is an under utilized variable on that test. I mean a lot of doctors don't even quite understand what the T score value is or what it means and then you ask them what's a Z score and they they they're scratching their even more of them are scratching their head not sure what it means. But that's really important to understand is a woman losing bone relative to other women her her age of her same her same race. And so that's a valuable tool I believe for that cohort of women that you're addressing and talking about to see okay are they are they losing bone or have they lost bone? I think that that can be that can be very helpful.

>> Yeah, kind of age matched early early detection, you know. >> Yeah, but I also think that we can just look at simple things like what's their dietary pattern. Because the amount of of of protein that a person consumes, that alone can account for 2 to 3% of bone mineral density. There are 180 200 proteins in bone, and most people aren't getting enough protein. And as we all get older, the US RDA for protein is insufficient to maintain bone mass and muscle mass as we get older. And so just looking at that and encouraging people, helping them calculate and recommend based on body weight in pounds, multiply that 0.6. That's the minimum amount of protein somebody should get based on on the research.

And tracking that way, that is a very practical way to get people involved and help them understand what they can do control the trajectory of this and even change the trajectory and help to rebuild bone and reduce fracture risk.

>> Yeah, I think that's so important. You know, we were talking about those other risks. I want to go back to some of those medications. But, you know, like you said, anorexia or bulimia, but we also have a lot of extreme dieting in the Gen X and Boomer groups, right? And we just I think the vast majority of women during those very important years of bone growth and then particularly into their mid-life were probably seriously under eating protein. Cuz I can tell you, talking to hundreds of women a week about osteoporosis cuz I do a lot of webinars about it, all of them are under eating. And that's that's the first thing they're like, "Oh my god, I got to eat protein like it's a job." I'm like, "Yes, you do." >> Yeah, and it's interesting in in the research I sometimes have come across the the phrase that osteoporosis is a pediatric condition with geriatric consequences. Meaning Isn't that great?

That really struck me, too, is that yeah, that makes sense. So, we're we're setting the stage at a young life, you know, in our 20s when we have get peak bone mass occurs, if we're not taking care of our health then it can manifest decades later. We may not know for decades and decades later.

And one of the concerns that I have, besides the fact that more and more young people, especially young women

are being put on antidepressants, and that is a powerful bone destroyer, but also GLP-1s. While there's no evidence that those those medications directly damage bone, there's no current evidence of that. My concern is that people are going to end up with nutritional deficiencies.

>> Oh, they do. >> Yeah, they get they're not eating enough. They're not consuming enough protein. They're not consuming enough micronutrients, and that is going to have devastating consequences decades down the road that we won't even see for a long time.

>> Oh, yeah. I mean, all you got to do is look at the the pictures of Demi Moore at Cannes, right? And I forgot who it was. I I want to say it was Vogue, but I that may be wrong, but it was a writer that took a picture of her and said, "Hey, look at her toned body." We're like, "That's not toned. That's skeletal." Right?

>> [laughter] >> She has lost so much muscle mass that, you know, she's a striking example, and it she's had a long history of of eating things over the years, but we have an entire community of people that are now looking at skinny talk and all these other things where they're using misusing these medications, and the goal is to get as skinny as possible. Like, I remember kind of the heroin chic from the '90s. Do you remember that?

>> Yeah. >> But the the reality is is is they could cause irreparable damage to their bone density that may be almost impossible to correct if they're doing that in their growth phases or where they're have the best opportunity to create bone.

>> Yeah, I mean, what you might be correct. We just don't have the data of that. We do know that at any stage of life, you know, it is possible, and I've seen it clinically, all the way to people in their 80s to be able to improve their bone density and their in their bone health. So, a bone is a dynamic living tissue, and as long as and it adapts to its environment like we do, you know, everything inside of us does. So, when we are giving the raw materials, creating the environment for the bone the osteoblasts to to do their job to create healthy, strong bone, it's going to do that. The problem is people aren't creating the environment for the body and the biochemistry to do what it wants to do to help us be as healthy as possible.

>> Yeah, I mean, it's more so yeah, everybody can I mean, there's studies with women in their 70s and 80s putting putting bone on, you know, just doing weight training alone. I just worry so much that nobody's looking at it and by the time it gets addressed, the the just sheer volume of loss is you know, it's kind of like, am I going to climb Everest to get it back? Or am I going to roll over this very short hill? Right? I'd rather roll over a very short hill or not have it at all than have to try and climb climb Everest 30 years later.

>> Yeah, and I think that's that's a great analogy and I love that, you know, you're so focused on this as as am I. And and I hope through your work and through my work and many other really amazing clinicians and and nutritionists and health care providers out there that are sounding the alarm on this and really pushing for more integrative approaches and a real a more rational, frankly, approach and scientific based approach to this, it will raise awareness. Unfortunately, for any condition, uh people tend to be reactive. You know, they don't really do things in terms of preventive medicine, although preventive medicine is a great buzzword and it's I think what we both hope people would do. If it doesn't hurt, if it's not a pain point, people not tend not to notice it. I think especially with bones because we all just take it for granted. We're walking around and living our lives and our bones are must be healthy.

>> Right, exactly.

SSRIs PPIs And Polypharmacy

Now, I want to go back and and specifically cuz I think, you know, I know most of my listeners are aware that the loss of estrogen, the loss of testosterone, progesterone, all of that can contribute to the signaling for bone building and bone repair that will be damaged.

Tell me about the mechanism of SSRI cuz there's an association there, for sure. But, tell me about the mechanism cuz I think people are going to be listening to this and like, "Oh my god, I'm on that or I've been on that." >> Well, I

think the the most fundamental concept that I can say is that bone is like the canary in the coal mine. It is the is receiving and and actually giving off hormones and there are receptors on bone for many hormones. So, serotonin receptors are on osteoclast. So, when serotonin is artificially elevated by the SSRIs or the SNRIs, you know, Prozac, Lexapro, Wellbutrin, what happens is they speed up the osteoclast activity and help osteoclast to live longer. And osteoclast, for your listeners if they don't know, are the the cells that break down old, worn-out bone, where the other metabolically active cells, the osteoblast, build up new, healthy bone. And we need a constant balance of those for healthy bone in a process called bone remodeling. And in fact, when bone is healthy and remodeling is is balanced, about every 10 years, we have all new bone.

And osteoporosis is essentially a a disorder or a condition of imbalance, where the destructive forces are winning. And one of those destructive forces could be an SSRI or anything that artificially raises serotonin. And those osteoclast then work faster, they work longer, and bone breaks down to the point where studies have concluded that for every 19 women taking an SSRI for 1 to 5 years, we would now expect one of them to fracture.

>> Oh my gosh, I have not seen that data. Wow. Wow. And then you add to that perimenopause, menopause, the loss of estrogen which drives osteoclast activity, too. So, if you're a woman, I would assume in menopause, right, and not treated with hormone replacement therapy and on an SSRI, now you've got kind of a double whammy.

>> Yeah, and I think you have really more of a triple or or whatever the five is, quintuple, quint whatever whammy. Uh because because all these things really are not happening in in isolation. What you have is somebody can be on an SSRI, but then the other category of medication, most common and they can get it over the counter now and are are acid blockers, proton pump inhibitors. Those damage bone and increase osteoporosis and fracture risk.

Um uh prednisone, 5% of postmenopausal women are on prednisone, and that damages bone. Then you have other diseases where as people get older, they're more likely to have, you know, irritable bowel syndrome or an autoimmune disease or ulcerative colitis uh or have gone through cancer treatment and are are cancer survivors. You'll all of those also are risk factors for osteoporosis factors. And then they're on other medications as well. In fact, research has shown that 94% of women, you know, 65 and older are on a medication that that increases their fall risk. And 95% of fractures occur because somebody falls. In addition to that, you have people who are on blood pressure medications for decades and they don't end up getting a a a a medication review to make sure that the dose of the medication that they were on 5, 10 years ago is still appropriate. As people get older, their ability to break down and metabolize the the medication tends to decrease. And when that happens, the amount of medication they're taking ends up being too high of a dose. So, it can drop the blood pressure lower. And then that also then is a risk factor for falls and fractures. So, all of these things start to compound and you have the highest risk group, this postmenopausal women with osteoporosis that just has two, three, four, five strikes against them.

Many of them being being created by the medical system itself with these with the way that diseases are treated and approached and by these medications that doctors don't even realize are destroying bone. There was a study that was done that looked at the medications women were taking, women with osteoporosis, for the three months before they fractured a hip and ended up in the hospital and what they were discharged with. 86% of those women were on a medication that increased osteoporosis fall and fracture risk.

Then they fractured, ended up in the hospital, and when they were discharged, there was no net benefit. If they were changed and given a different medication, they're put on a medication that essentially kept their high level, maybe with a different and or a different mechanism.

System Gaps And AI Help

>> This is where our current our current There's so many things wrong with our current medical system. That's a That's at least a four-day extravaganza. But I think it's the lack of the quarterback role. You know, like the idea is that that internal medicine person is kind of your quarterback. Meaning that you have all these other players, your specialists, your this, your that, or whatever.

The idea was always that that internal medicine person was going to take all that information, distill it down, pay attention to all those things, and do that sort of error check, and also help you understand what you're getting as a

patient and help you make decisions, which is 100% not what happens. They are the they are the referral source and the pill pusher and neither do they any any of these doctors ever go through and look at what the other physician have put you on, what you're on today, what's being added and what could potentially add risk anywhere. Like that is zero. The only place I know that happens is in the functional and longevity world.

>> And even then that probably gets missed. >> Look, the medical doctors and the physicians that that I talked to, they're all all of them that I've talked to are very well intentioned, very well meaning and they unfortunately are in a system that doesn't allow for those conversations nor do they have the background with their education to be able to have the more comprehensive education. But you can just simply can't address these things in an 8-minute visit. In addition to that, and this is what's in the published research, is osteoporosis is often time not even discussed or dealt with because there are other things that people are coming in with that are considered more important like cardiovascular disease and diabetes and so osteoporosis is simply pushed to the side, which is why, you know, in my book, I go chapter by chapter and I and I talk about, you know, which medications are causing this problem so you can talk to your doctor, what what about the osteoporosis medications, your questions to ask their doctor so they can make sure they're getting the best possible information so they can make the best possible choices the patients can and then how to build a comprehensive, you know, bone health, integrated bone health program that makes sense for them. You know, that is what's missing within the conventional system and that is something a resource that I was passionate about trying to provide and I hope that I've accomplished. Many people are finding this incredibly useful, my book for creating this blueprint for them to be able to see definitive results and get them on the right path.

>> Yeah. Yeah, no, it's really it really is the bureaucracy and the business model of medicine that is shoehorned, you know, physicians into a lose-lose situation. You know, I look at it also as a as a technology company and uh you know, have a tech firm that's building things. This is where I think having having AI-driven but clinician experience sort of pulled together where you can have technology start to ferret out and find these things. So, we don't have to leave it to humans to try and figure it out. I think there's a lot of opportunity where at least AI can start adding value like fact-checking across all these medications for the multitude of things that could be a concern regardless of what the patient comes in for. Just looking at it and going, "Okay, this is a woman of this age. She might be worried about this cardiovascular disease, but here's the other things we need to pay attention to." Um and help sort of create that sort of landscape and it's your information, things like you put together in the book that helps somebody navigate it today cuz that's not here today. Right. That's a long time coming. So, you've got the right thing so people can help navigate that because I I I know for a fact that's not what's really happening.

You know?

Bone Turnover Markers Reality

Now, what do you What do you think about things like bone turnover markers? You know, CTX, P1NP. What [clears throat] do you think about those? >> I think that they can be helpful in guiding a conversation and making people more aware that there's an issue and helping to get them more involved in their in their health in their own health care, which is important.

Because the best results when it comes especially to bone health and osteoporosis occur when people are being proactive, when they are taking the steps to change their their habits, their diet, their lifestyle, their sleep, and doing those right things. And so, testing for me, any of the testing, REMs, DEXA, CT, BTM, bone turnover markers, the greatest value for any of those is to start a conversation or continue the conversation going. The The ability of the bone turnover markers to predict fractures is quite limited.

Research says it's quote modest at best. So, clinically there's not a, you know, in terms of routine testing, I know some doctors are are doing that and they're they're finding it useful. The challenge I have is is when I'm hearing from patients or I hear lectures at conferences where they're they're taking the the data or the results from that and they are drawing conclusions about how valuable those are clinically that just simply don't align with what the research shows and I'll give you an example of that.

A patient came to me and they said, "My doctor did a CTX and NTX tests and said the ratio, you know, was not

good. I'm losing bone quickly now. Um I'm a fast loser." That's what she she said.

But, not to worry because I'm in perimenopause and that will slow down and those numbers should improve. The reality is if you look at the research, the ability of those bone turnover markers to predict the rate of bone loss is 50%. It's no better than a coin toss. And so, that's the challenge I have is when these bone turnover markers are are are used and and they're talked in a way similar to the bone density test that simply is not aligned with what what the research shows.

Additionally, with the bone turnover markers is I think we have to all be really cautious in how we interpret them because there's so many things that can interfere with bone turnover markers.

Even if somebody has the same if they they do the bone turnover marker at a different lab or even in the the lab on a different machine or if they do it in the winter versus the summer, or if they broken a bone in the last 12 months, or if they've exercised in the last 3 days, and all of these things can change that.

And so, I think it's it's really important, and I also believe the premise of the bone turnover markers, and what I see my colleagues some of my colleagues doing, focusing on CTX or undercarboxylated osteocalcin or or a few of these, I think it misses a little bit of the the analogy of the forest for the the trees because there are, as I mentioned, 180 to 200 proteins in bone, and many of these bone turnover markers are breakdown products of proteins. So, to say, "Oh, it just boils down to one, two, or three of these little fragments of proteins." It just doesn't make sense to me, and just intuitively, but then the research also shows that, you know, we really need to be cautious.

>> Yeah, you know, I I've I mean, cuz we use them as more as more so cuz, you know, like DEXA's a long game. In order for that very gross kind of old-school x-ray to show anything, 18 months is about like where you could where you could say it's not maybe meant to chance. Like, and that's even then I would argue that maybe it's not. Reams may or may not be a little bit better, but it might help you have some directional idea if the actions you are taking, if you control for diurnal changes and circadian all that stuff.

But, I always look at it, too, that you can't just look at CTX if you don't know what the building side's doing. Like, I'm like, it's a math equation. You need the negative and the positive to assess what they're doing compared to each other. We don't have comparative studies. We don't, but if we're trying to find a directional thing to say, "Are the things that we're doing possibly making a difference in this short time period so we can adjust?" Maybe this is helpful, but you know, so many of the doctors just run like a CTX, and they're like, "Here you go." And I'm like, that's cuz they were told to do that based on whether the medication was suppressing CTX too far.

>> Yeah, and I think you're using it exactly the right way, and in fact, that is the way that it is recommended in terms of how these should be implemented in clinical practice at least conventionally because it is recommended to test bone turnover markers to see if somebody is being compliant with the treatment with the protocol and so I do like that because you're right we really don't test DEXAs any more frequently than 18 to 24 months and so those bone turnover markers you know you can retest more frequently and it does give people a sense of you know hey can we you know we're we're in the we're on the right we're in the right direction.

>> Yeah is it a clinician? >> Yeah and there's a clinician I talked to and I really like his his approach Doug Lucas he's a DO I don't know if you know Doug he's he's phenomenal.

You know he's talks about how he uses it to see if we need to if if we need to optimize or he needs to optimize estrogen a little bit more if there's a little bit more room to go up and we can dry he can dry that CTX marker down a little bit.

>> Yeah yeah cuz that's a direct relationship. You know for sure. You know so I want to move on to cuz I have a hundred other questions I could ask there and I'm like behave yourself Betty we don't have hours.

Now you you also came out with some new information about sleep right and the their sleep and particularly around fracture risk not so much DEXAs but fracture risk let's talk about that.

>> Well sleep deprivation insomnia is as dangerous as drunk driving and we look at some of these disasters historically that have gone on major global disasters like the Exxon Valdez tanker that crashed in Alaska decades ago or the chemical plant in I think it was Bhopal India that exploded decades ago and killed a lot of people.

Those both had in the research that was done after that in the investigations, sleep deprivation as a causative factor. And when somebody is not getting enough sleep, their risk for making these these errors, both cognitive errors, you know, poor judgment. And research has also shown we just make poor decisions, but also balance goes down. And so the risk for falling goes up. And bone density also decreases at a faster rate. We lose bone faster. And what happens is you're getting cortisol that's increasing because of the stress on the body. And cortisol, even even when it's in the normal range, it doesn't have to be a exogenous cortisol from a drug or somebody with Cushing's disease that has, you know, incredibly high cortisol because they have a diagnosis, but even normal cortisol in the quote-unquote healthy range has been shown, when it's towards the high end of normal, to increase how fast somebody loses bone.

And so when we're sleep deprived, cortisol is going up. And it's a survival mechanism. But that short-term survival mechanism is compromising our long-term bone health, and frankly our long-term health and long-term survival.

Because if you fracture a hip with osteoporosis, there's up to a 36% chance that you're going to be dead within thin air. >> Yeah. Yeah, which I think most people just don't understand and don't know.

You know, now one of the things that we've talked about, cuz you talked it specifically around those risk factors for fracture. We talked about some of the medications and things like that.

But I know one of the things that I often, you know, talk with people about is, you know, what is your physical ability through different, whether it's flexibility, mobility testing, how agile are you? Do you still have, do you still have kind of fast twitch? Cuz I I remember a study forever ago that looked at the the how often a little kid trips, you know, young middle-aged person. I hate using middle-aged cuz I'm like, wait a minute, I'm not middle-aged yet.

And then an older person, right? And what they found is actually the stumble ratio wasn't that different between the three age groups. What was different is the young child and the, you know, 20-30 year old caught themselves before they fell. Right? They had fast twitch muscle, they were able to pre-o perception, all of those firings fired and that the older person, I'm going to kind of make kind of fun of it, it was, you know, they stumble and they're like, "My god!" Cuz the body's just slow to respond. So, there's a physical side of this that people ignore. It's not just weight training.

>> Yeah, and I I love that you're bringing this up because there are things that people can track in themselves with themselves and that I would do clinically that have nothing to do with a blood test or or running a test on a on a machine. And one of those is the one-legged stand test.

So, research has shown that if people can stand on one leg for 5 seconds or even more determinant is 10 seconds, they have a lower risk of reducing of of falls, uh you know, fractures, uh mortality, also, you know, being able to have a they're if they can stand that long, they're they have have more likely to be able to age and be able to take care of themselves and live independently. And so, a study looked at you know, people 51 to 55 and 95% of them could stand on one leg for 10 seconds. By the time they were 71 to 77, less than half could. And those that couldn't had an 82% increased risk for, you know, dying and and losing their their independence as well. And so, that alone, just somebody can test themselves, the grip strength. And people can buy, you know, expensive, there's like $400 machines we can get in clinic to measure somebody's grip strength, but I like to say if you just are having a hard time opening jars, you know, grip strength decrease grip strength is associated with with decrease bone density. And so that's another indicator. Shuffling or walking speed. So if you find that you're walking slower, that's a risk factor. Or somebody's telling you you're walking slower, that's a risk factor.

And the good thing is that look, unless you have a neurological condition, disease where you absolutely cannot correct this, all of these things are correctable. You can increase your fast twitch fibers. You can increase your muscle mass. The study that was done the oldest participant was 85 years old and when they were given enough protein and did resistance exercise, muscle mass increased in every age group including up to 85.

>> Yeah. Yeah, I think you know, it's it's also I think too is you know, if somebody was let's say a dancer or an athlete, right? When they were younger, they also had depending on the kind of things that they did, they also had the capacity to sort of train their body to be better at where they are in space and time and and those kind of things, but everybody can do that whether it's you know, engaging in things like actual agility training, but even dance. Like if we look at dance [clears throat] and the neurological effect of dance, like we've got Parkinson's disease studies and all these other things, learning how to dance can probably reduce that.

>> Well, and I think also it's about finding out what people love to do. >> Yeah. >> Because I can't force somebody to do something they don't love. This is a long game, you know, and it's not about doing it one time or one week or one month. This is about finding something you enjoy and doing it over and over and switching when you you get bored, but gardening, even just walking, you know, all of these things are great. I think there is a subset of people though that's important to understand that like not everybody can do these things. One of the things that is not assessed clinically, which is a big miss, is people's foot health.

>> Yes. >> So bunions, foot pain, abnormal anatomy can keep people from doing these activities and also has been shown repeatedly to increase the risk for falls and fractures. And so, I want to make sure that people understand that.

It's not as though I expect everybody can just go out and do these things. It's about identifying where the challenges are, where the blocks are to moving forward and and and improving your health and let's see if we can address those those blockages and get rid of them or minimize them. You know, go to a podiatrist, get it get, you know, orthotics. Those are two possible things that you can you can do.

Additionally, I do want to address just briefly the concept of fear because we talked about that initially and when we first started. But fear itself has been shown, fear of falling has been shown to be predictive of people falling. And so, everything we can do up to empower people to not feel afraid, to help them feel more confident, and to give them the real information and the real help and the real steps they can take to reduce that fear and increase their strength and increase their bone health and increase their knowledge and their confidence is going to go a long way to helping them reduce their fracture risk, but also everything we've been talking about when it comes to diet, lifestyle, sleep. When you're approaching all of those in the way that we we discuss and the way that's laid out in my book and I'm sure the way that you work with your clients and patients with, it also reduces the risk for every other chronic disease, heart disease, cancer, death from cancer. I mean, all of that is helped by these integrative approaches.

>> Yeah. Yeah, I'm glad you brought the fear back up cuz I I would say from my experience in the last particularly the last few years, there's an awareness around osteoporosis that wasn't there before, but I think because it hasn't been appropriately talked about, because people haven't been given the information like what's in your book, I would say the fear there is probably greater than a lot of other places. And, you know, I have I've heard so many women say, "Well, I used to do this, but I'm terrified to do it now, or I'm scared to do it now." You know, and I'm like, "Okay, that's not helping us, >> [laughter] >> you know?" That's and I'm so glad that you brought that back up, because that's not necessarily true that, you know, taking all of these pieces and also recognizing that you're empowered to be able to do these things with or without the medications, right? That there's a multitude of things that you can do that are within your control to really build that strong, healthy bone that's fracture proof.

>> Yep. And in fact, I would argue for most people, most of the things are in our control, are in their control to do. >> Yeah. Yeah, I would agree. Well, Dr. New said, I'm so glad to have you on the show again. This has been such an awesome, awesome conversation. So, everybody, I want to make sure that you go get this book, right? So, if you're worried about osteoporosis, you need to have this book. If you're a female, you need to have this book. If you are a male and you think it doesn't belong in your camp, it does, cuz you can have it, too.

Everybody needs to read this. And it's on all the major platforms, right? >> Yep. Yeah, fracture proof your bones. Yes, it's on Amazon. It's available online.

Um, it's available on my website, nbihealth.com. So, there's a lot of free articles people can get some good resources on there as well. >> Fantastic. Well, thank you for being on Menopause Mastery again. This has been a

great conversation.

>> Thank you. I enjoyed it. I appreciate it. >> Thank you so much. And if you're listening to Menopause Mastery and you happen to be listening on your favorite podcast platform, don't forget to subscribe and leave a five-star review.

If you're watching us on YouTube, leave a comment and subscribe so you don't miss any wisdom, and I will be back next week.