Bone Health Interview with Dr. Jocelyn Wittstein and Sydney Nitzkorski Transcript

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Introduction and Guest Introductions

Hi, this is Lisa Broyles with Way to Hi, this is Lisa Broyles with Way to Health MD and I have some special guests Health MD and I have some special guests today that I wanted to introduce you to.

today that I wanted to introduce you to. This I've been doing has been about the This I've been doing has been about the book The Complete Bone and Joint Health book The Complete Bone and Joint Health Plan and I have with me Dr. Jocelyn Plan and I have with me Dr. Jocelyn Witzig. She and I went to medical school Witzig. She and I went to medical school together. She probably doesn't know this together. She probably doesn't know this but she did kind of help inspire me on but she did kind of help inspire me on my journey to long distance running. And my journey to long distance running. And I think I got halfway through the run I think I got halfway through the run and she was beating my pants off and I and she was beating my pants off and I was like, "Okay, I'm out.

was like, "Okay, I'm out. You keep going." And she did, which was You keep going." And she did, which was awesome. So, she's an amazing athlete. awesome. So, she's an amazing athlete.

So, Jocelyn is an associate professor at So, Jocelyn is an associate professor at Duke University in orthopedic surgery. Duke University in orthopedic surgery.

She also specializes in sports medicine. She also specializes in sports medicine. So, thank you Jocelyn for being here and So, thank you Jocelyn for being here and talking to us about your book today. I talking to us about your book today. I also have co-author Sydney Nikurski. She also have co-author Sydney Nikurski. She is a registered dietitian and she's also is a registered dietitian and she's also a fitness instructor. So, she's been a fitness instructor. So, she's been practicing for over 20 years in private practicing for over 20 years in private practice and she's got some absolutely practice and she's got some absolutely awesome videos both on Zoom and on awesome videos both on Zoom and on YouTube. I'll make sure to include the YouTube. I'll make sure to include the link to her website if anyone's link to her website if anyone's interested in joining her for her online interested in joining her for her online exercise classes or watch any of her exercise classes or watch any of her YouTube. I I did one the other day with YouTube. I I did one the other day with my weights and I can say Sydney it was my weights and I can say Sydney it was hard but I really loved it at the same hard but I really loved it at the same time. So, thank you so much for doing time. So, thank you so much for doing that for us.

that for us.

Creatine Safety and Bone Density

>> Yeah, we like to say between the two of >> Yeah, we like to say between the two of us we've got about 40 years of us we've got about 40 years of collective experience.

collective experience. >> That's perfect. And I always tell my >> That's perfect. And I always tell my patients I can't know everything but I patients I can't know everything but I do know who to ask. So, I I always see do know who to ask. So, I I always see myself as part of a team of other myself as part of a team of other providers and together we can help providers and together we can help people and have all of the knowledge.

people and have all of the knowledge. There's no way my brain can hold it all. There's no way my brain can hold it all. So, So, So, but thank you both for being here. So, but thank you both for being here. So, the complete bone and joint health plan.

the complete bone and joint health plan. You published this book last year. As as You published this book last year. As as I I've read the book, I've studied the I I've read the book, I've studied the book and I think that everyone should book and I think that everyone should have this book on their bookshelf as a have this book on their

bookshelf as a resource. So, they talked to you us a resource. So, they talked to you us a little bit about just the science behind little bit about just the science behind bone health and how to keep our joints bone health and how to keep our joints healthy, but then they take a deep dive healthy, but then they take a deep dive into foods that will help our joints into foods that will help our joints hurt less, help our bones grow stronger, hurt less, help our bones grow stronger, or even promote bone density where it's or even promote bone density where it's lacking. And then they also have a lacking. And then they also have a section on what exercises you should do.

section on what exercises you should do. So, and there's even online further So, and there's even online further videos with instruction on how to do videos with instruction on how to do your own home exercise program, which is your own home exercise program, which is essential for strengthening those bones.

essential for strengthening those bones. And I'm just going to dive right in with And I'm just going to dive right in with some questions. So, some questions. So, Jocelyn, I wanted to ask you, I just Jocelyn, I wanted to ask you, I just finished a series on the benefits of finished a series on the benefits of creatine, but I wanted your opinion on creatine, but I wanted your opinion on creatine monohydrate. How safe do you creatine monohydrate. How safe do you think it is and do you think it benefits think it is and do you think it benefits bone density?

bone density? >> So, I think creatine monohydrate is >> So, I think creatine monohydrate is incredibly safe. It's probably the most incredibly safe. It's probably the most studied supplement there is.

studied supplement there is. You know, and a dose of 5 g daily has You know, and a dose of 5 g daily has been, you know, widely studied really in been, you know, widely studied really in people of all ages. And when combined people of all ages. And when combined with strength training does improve our with strength training does improve our ability to gain muscle mass. There isn't ability to gain muscle mass. There isn't any evidence that creatine monohydrate any evidence that creatine monohydrate in isolation will directly increase your in isolation will directly increase your bone density.

bone density. So, they they will enhance our ability So, they they will enhance our ability to gain muscle mass, which then can to gain muscle mass, which then can secondarily secondarily secondarily benefit our bone density. And, you know, benefit our bone density. And, you know, resistance training in particular has resistance training in particular has really the most prominent effect on our really the most prominent effect on our vertebral, especially our lumbar spine vertebral, especially our lumbar spine bone density and somewhat on our our hip bone density and somewhat on our our hip bone density as well. Strength training bone density as well. Strength training is key to improving your bone density.

is key to improving your bone density. Think of creatine monohydrate as a way Think of creatine monohydrate as a way to amplify the, you know, effectiveness to amplify the, you know, effectiveness of your strength training.

of your strength training. >> And is creatine safe for older people? >> And is creatine safe for older people? What about people with kidney disease? What about people with kidney disease?

>> So, if you know you have kidney disease, >> So, if you know you have kidney disease, you know, that's something you should you know, that's something you should discuss with your doctor, certainly. Um discuss with your doctor, certainly. Um people with significant kidney people with significant kidney dysfunction shouldn't should probably dysfunction shouldn't should probably not be taking this supplement. Uh but not be taking this supplement. Uh but for people who have normal kidney for people who have normal kidney function, this is an incredibly safe function, this is an incredibly safe supplement.

supplement. supplement. >> And it's safe for older people as well, >> And it's safe for older people as well, and I read that it can improve and I read that it can improve cognition. So, it's one more tool in the cognition. So, it's one more tool in the toolkit to help with our memory and our toolkit to help with our memory and our bones.

bones. bones. >> There's some like mixed evolving data on >> There's some like mixed evolving data on the cognitive effects. Uh and you know, the cognitive effects.

Key Micronutrients for Bone Health

Uh and you know, based on some research, you may need a based on some research, you may need a higher dose to actually see cognitive higher dose to actually see cognitive effects. There's also some evidence that effects. There's also some evidence that creatine monohydrate might help with, creatine monohydrate might help with, you know, recovery from fatigue, but I you know, recovery from fatigue, but I think that is evolving, and I think the think that is evolving, and I think the dose that's been studied regularly and dose that's been studied regularly and shown to be safe is the the 5 g daily.

shown to be safe is the the 5 g daily. Some of the doses for cognition seem to Some of the doses for cognition seem to be higher, um and I think probably more be higher, um and I think probably more to come on that.

to come on that. >> So, Jocelyn, I also wanted to ask you, >> So, Jocelyn, I also wanted to ask you, what other micronutrients do the bones what other micronutrients do the bones need to be healthy? Cuz I know that we need to be healthy? Cuz I know that we often need extra nutrients kind of as often need extra nutrients kind of as carriers to help us absorb our calcium carriers to help us absorb our calcium better. So, you know, do you think that better. So, you know, do you think that K2, magnesium, what do you think is K2, magnesium, what do you think is really important to also take in with really important to also take in with that calcium?

that calcium? >> And you'll see in our book we have a >> And you'll see in our book we have a table of micronutrients because um you table of micronutrients because um you know, micronutrients are very important know, micronutrients are very important for bone health. Of course, everyone for bone health. Of course, everyone thinks of calcium as being, you know, thinks of calcium as being, you know, the main the main um micronutrient we need for bone um micronutrient we need for bone health, but um we can't get calcium to health, but um we can't get calcium to our bones to mineralize it without some our bones to mineralize it without some of these other micronutrients. So, you of these other micronutrients. So, you know, magnesium is a necessary cofactor know, magnesium is a necessary cofactor for vitamin D.

for vitamin D. Uh vitamin D, of course, helps us with Uh vitamin D, of course, helps us with calcium absorption. Uh vitamin K2 is calcium absorption. Uh vitamin K2 is important for um important for um basically activating um something called basically activating um something called osteocalcin, osteocalcin, osteocalcin, uh which you know, osteocalcin helps uh which you know, osteocalcin helps essentially you can think of it as essentially you can think of it as direct calcium to our bones, assisting direct calcium to our bones, assisting with the mineralization of bone with the mineralization of bone uh uh uh with calcium. So, all of these things with calcium. So, all of these things are important. Um you know, vitamin C are important.

Calcium Sources and Supplement Timing

Um you know, vitamin C also contributes to cross-linking of also contributes to cross-linking of collagen, so you know, that's another collagen, so you know, that's another micronutrient that's important.

micronutrient that's important. >> Take those together at the same time and >> Take those together at the same time and should they take their D with K2 at the should they take their D with K2 at the same time as they take a calcium same time as they take a calcium supplement or when they eat food supplement or when they eat food containing calcium?

containing calcium? >> Well, you'll see a lot of vitamin D >> Well, you'll see a lot of vitamin D supplements do contain also have some K2 supplements do contain also have some K2 in it, you know, roughly 100 micrograms in it, you know, roughly 100 micrograms is a pretty common is a pretty common daily amount. Now, K2 does have a pretty daily amount. Now, K2 does have a pretty depending on the variation of it has a depending on the variation of it has a pretty long half-life, so it's not pretty long half-life, so it's not necessarily that you don't necessarily necessarily that you don't necessarily have to consume them directly together have to consume them directly together and like many things it's not like and like many things it's not like immediately immediately immediately gone for instance. But yeah, a lot of gone for instance. But yeah, a lot of times they are in a supplement together.

times they are in a supplement together. For people who are vegan, you might want For people who are vegan, you might want to take a supplement that includes K2 to take a supplement that includes K2 because there are very few, you know, because there are very few, you know, vegan sources of K2. It's in something vegan sources of K2. It's in something called natto, which is a highly called natto, which is a highly fermented soy product which I actually fermented soy product which I actually just tried for the first time last night just tried for the first time last night and then is definitely an acquired taste and then is definitely an acquired taste because because because I don't think I like it.

I don't think I like it. And you know, it's in um Yeah, like aged And you know, it's in um Yeah, like aged cheeses, um egg yolks. It's also in, you cheeses, um egg yolks. It's also in, you know, organ meats like liver and you know, organ meats like liver and you know, not that many people eat liver.

know, not that many people eat liver. It's in some chicken. It's in fermented It's in some chicken. It's in fermented foods like sauerkraut and kefir, so foods like sauerkraut and kefir, so uh tempeh has some because I include uh tempeh has some because I include some fermented soybeans not as fermented some fermented soybeans not as fermented as the the natto. But yeah, so if you're as the the natto. But yeah, so if you're a vegan then you're not getting like any a vegan then you're not getting like any egg yolks, no fermented, you know, egg yolks, no fermented, you know, kefir, no no cheeses, no animal kefir, no no cheeses, no animal products. It might be a little harder products. It might be a little harder cuz you would be relying on something cuz you would be relying on something like maybe natto or or sauerkraut like maybe natto or or sauerkraut or tempeh aren't like the most rich or tempeh aren't like the most rich sources. They have many other good sources. They have many other good things in them. That is a group of things in them. That is a group of people who might definitely benefit from people who might definitely benefit from having some K2 in a supplement. And if having some K2 in a supplement. And if you look at that list of things that are you look at that list of things that are included, you know, that contain it and included, you know, that contain it and those are in your diet regularly, those are in your diet regularly, um it's not a massive amount you need.

um it's not a massive amount you need. It's just, you know, 100 micrograms per It's just, you know, 100 micrograms per day. One micronutrient, of course, there day. One micronutrient, of course, there are many.

are many. >> Okay, that that kind of dovetails into >> Okay, that that kind of dovetails into my next question. This is my next question. This is more for Sydney, but I wanted to talk to more for Sydney, but I wanted to talk to you about calcium and what you what our you about calcium and what you what our daily recommendation of calcium is, daily recommendation of calcium is, which I know you answered that some in which I know you answered that some in the book, but a lot of my patients ask the book, but a lot of my patients ask me. They're like, "Well, what's the deal me. They're like, "Well, what's the deal with calcium and dairy?" Because there's with calcium and dairy?" Because there's a lot of informa- Some people say, "Yes, a lot of informa- Some people say, "Yes, we should eat dairy because it contains we should eat dairy because it contains the most calcium." And others say, the most calcium." And others say, "Well, it's only 30% bioavailability in "Well, it's only 30% bioavailability in the dairy, whereas 60 to 70% the dairy, whereas 60 to 70% bioavailability in our leafy greens." bioavailability in our leafy greens." But then who's going to eat as many But then who's going to eat as many leafy greens as they're drinking a cup leafy greens as they're drinking a cup of milk? So, there's been this back and of milk? So, there's been this back and forth kind of argument and a lot of I forth kind of argument and a lot of I get this question all the time from my get this question all the time from my patients of, "Well, I I can't eat dairy patients of, "Well, I I can't eat dairy or I'm sensitive to dairy, so am I going or I'm sensitive to dairy, so am I going to get enough calcium from my greens?" I to get enough calcium from my greens?" I just wanted you to kind of address that just wanted you to kind of address that bioavailability of calcium in our food.

bioavailability of calcium in our food. Any certain things we should avoid Any certain things we should avoid taking our calcium with? taking our calcium with?

>> So, great question. It depends on how >> So, great question. It depends on how old you are, depending on how, you know, old you are, depending on how, you know, where what age bracket you're in depends where what age bracket you're in depends on how much calcium you need. But it's on how much calcium you need. But it's somewhere between 1,000 and 1,300 mg, somewhere between 1,000 and 1,300 mg, which can be a good amount.

So, to put which can be a good amount. So, to put that in perspective, 8 oz, which is a that in perspective, 8 oz, which is a fairly small cup, of milk is 8 is 300 mg fairly small cup, of milk is 8 is 300 mg of calcium. You need 1,000 a day. There of calcium. You need 1,000 a day. There the calcium from dairy products, as you the calcium from dairy products, as you said, is about 30% absorbable, which is said, is about 30% absorbable, which is on the higher side. Um green leafy on the higher side. Um green leafy vegetables can be even higher, but the vegetables can be even higher, but the amounts are a little smaller. So, a half amounts are a little smaller. So, a half cup of cooked bok choy is a really good cup of cooked bok choy is a really good source, but it has 80 mg. So, you're source, but it has 80 mg. So, you're trying to get to 1,000 or 1,200. It's trying to get to 1,000 or 1,200. It's so hard to get all your calcium from so hard to get all your calcium from green leafy vegetables. I would say, I green leafy vegetables. I would say, I mean, maybe one day you might do it, but mean, maybe one day you might do it, but it on a daily basis, I think that's it on a daily basis, I think that's nearly impossible. Other dairy products nearly impossible. Other dairy products like yogurt are all going to have like yogurt are all going to have calcium in them.

calcium in them. And then the non-dairy milk And then the non-dairy milk alternatives, so cashew milk and oat alternatives, so cashew milk and oat milk and soy milk and rice milk.

milk and soy milk and rice milk. None of them are natural sources of None of them are natural sources of calcium, but almost all of them are calcium, but almost all of them are fortified, which is a really good way to fortified, which is a really good way to get a good amount of calcium. Usually get a good amount of calcium. Usually the amount somewhere between 300 and 400 the amount somewhere between 300 and 400 mg of calcium in the milk alternatives, mg of calcium in the milk alternatives, but I always encourage people to look at but I always encourage people to look at the label because it's not guaranteed the label because it's not guaranteed that they are fortified. So most of them that they are fortified. So most of them are, but not all of them, and we all are, but not all of them, and we all tend to buy the same products over and tend to buy the same products over and over. So if there's something that you over. So if there's something that you buy all the time, just make sure that buy all the time, just make sure that it's calcium fortified if you're it's calcium fortified if you're counting it as a calcium source. Um counting it as a calcium source. Um there are other foods that have calcium there are other foods that have calcium certainly.

certainly. certainly. So things like um basil seeds, which are So things like um basil seeds, which are really similar to chia seeds. A lot of really similar to chia seeds. A lot of people don't know about basil seeds, but people don't know about basil seeds, but they're a little bit more nutrient dense they're a little bit more nutrient dense compared to chia seeds. Two compared to chia seeds. Two tablespoons have about almost 400 mg of tablespoons have about almost 400 mg of calcium. Things like sardines or calcium. Things like sardines or anchovies with their bones have around anchovies with their bones have around 300 mg in 3 oz. So there are a lot of 300 mg in 3 oz. So there are a lot of different sources out there. Things like different sources out there. Things like broccoli has about 30 mg in half a cup broccoli has about 30 mg in half a cup cooked. So great for a million other cooked. So great for a million other nutrients. It's not a huge calcium nutrients. It's not a huge calcium source. It is certainly possible to get source. It is certainly possible to get all your calcium from your food, but it all your calcium from your food, but it can be challenging. So what I usually can be challenging. So what I usually tell my um tell my um my clients is to have a supplement my clients is to have a supplement around and take it some days if you need around and take it some days if you need it and other days you maybe you don't it and other days you maybe you don't need it. So most calcium supplements are need it. So most calcium supplements are in the amount of 500 mg and you should in the amount of 500 mg and you should separate it from calcium sources or separate it from calcium sources or another calcium supplement by about 4 another calcium supplement by about 4 hours and calcium and iron don't like to hours and calcium and iron don't like to go together. So I always say like go together. So I always say like they're enemies, calcium and vitamin D they're enemies, calcium and vitamin D and K and magnesium. Those are best and K and magnesium. Those are best friends, so you can have them together, friends, so you can have them together, but not with the iron. But you just to but not with the iron. But you just to capitalize on your absorption for capitalize on your absorption for calcium, you do want to separate it by calcium, you do want to separate it by about 4 hours. So I would just encourage about 4 hours. So I would just encourage people to people to maybe at the end of the day think like, maybe at the end of the day think like, all right, well did I have a coffee all right, well did I have a coffee today with a lot of milk or soy milk today with a lot of milk or soy milk that's fortified? Um or did I get some that's fortified? Um or did I get some cheese or some some yogurt that has a cheese or some some yogurt that has a good amount of calcium? How many did I good amount of calcium?

Exercise Recommendations for Bone Strength

How many did I have? Am I close to that 1,000 or 1,200 have? Am I close to that 1,000 or 1,200 mg? And if you are, great, and if not, mg? And if you are, great, and if not, maybe you take one supplement. You don't maybe you take one supplement. You don't necessarily need both of them. Um most necessarily need both of them. Um most of the labels will say take two because of the labels will say take two because they're assuming you're getting zero they're assuming you're getting zero from your diet. But if you're getting from your diet. But if you're getting some parts from your diet, maybe one some parts from your diet, maybe one supplement's enough. If you're getting supplement's enough. If you're getting zero from your diet, then you do need zero from your diet, then you do need two a day.

two a day. >> I do think this is such an important >> I do think this is such an important topic. Oh, go ahead, Jocelyn. topic. Oh, go ahead, Jocelyn.

>> I was just going to say, you know, we've >> I was just going to say, you know, we've talked about in the past that some of talked about in the past that some of the concept of your daily value, the concept of your daily value, um, generally takes into the account um, generally takes into the account into account that there are various into account that there are various absorption or bioavailability rates absorption or bioavailability rates among different foods. Like dairy is among different foods. Like dairy is quite high.

quite high. Bok choy is the highest bioavailability Bok choy is the highest bioavailability of all vegetables. Spinach is very has of all vegetables. Spinach is very has very poor bioavailability. So, you can very poor bioavailability. So, you can actually absorb, you know, similar actually absorb, you know, similar amounts of calcium from bok choy as from amounts of calcium from bok choy as from milk, but like spinach is going to be milk, but like spinach is going to be not a great source of of calcium. And not a great source of of calcium. And not that people need to go around not that people need to go around calculating all the bioavailability of calculating all the bioavailability of every source that they that they, um, every source that they that they, um, take in, but uh we do try to share in take in, but uh we do try to share in the book, you know, also like which the book, you know, also like which sources are highly bioavailable and sources are highly bioavailable and which ones are not, um, to kind of help which ones are not, um, to kind of help people, you know, kind of err on the people, you know, kind of err on the side of, um, choosing some of those.

side of, um, choosing some of those. >> You you talked about in your book how >> You you talked about in your book how the body will steal calcium from the the body will steal calcium from the bones and the and the teeth when it bones and the and the teeth when it doesn't have enough. And when I was uh doesn't have enough. And when I was uh when I was pregnant, my teeth literally when I was pregnant, my teeth literally my front teeth crumbled while I was my front teeth crumbled while I was pregnant. And I think it was like my pregnant. And I think it was like my calcium levels I was not taking calcium.

calcium levels I was not taking calcium. I obviously wasn't eating enough. And I I obviously wasn't eating enough. And I think my body just took some out of my think my body just took some out of my teeth to build my my kids' little, you teeth to build my my kids' little, you know, frame there. So, like, well, darn.

know, frame there. So, like, well, darn. I guess my kids have my teeth now. I I guess my kids have my teeth now. I have But uh I I it it did underscore for have But uh I I it it did underscore for me that I was not eating enough calcium.

me that I was not eating enough calcium. And I and I had always thought that we And I and I had always thought that we start losing bone when we go through start losing bone when we go through menopause, but turns out as you shared, menopause, but turns out as you shared, you know, even at age 30 our bone bank you know, even at age 30 our bone bank kind of peaks. And then from there, it's kind of peaks. And then from there, it's up to us to eat right and exercise and up to us to eat right and exercise and and do what you need to do to keep that and do what you need to do to keep that bone bank high, but it doesn't just bone bank high, but it doesn't just naturally get any better after age 30.

naturally get any better after age 30. So, that was new information. So, that was new information. >> Um. >> Um. >> Um. Uh and I think a lot of people don't Uh and I think a lot of people don't realize that that um, you know, if realize that that um, you know, if you're a mom and you have kids, like you're a mom and you have kids, like just your children in their adolescence just your children in their adolescence are are accruing the are are accruing the peak bone You actually accrue 90% of peak bone You actually accrue 90% of your peak bone mass or bone density by your peak bone mass or bone density by the end of adolescence. There is a the end of adolescence. There is a little bit more that is gained that that little bit more that is gained that that after age 25 or 30, but actually most of after age 25 or 30, but actually most of it occurs in adolescence, which is scary it occurs in adolescence, which is scary to think about.

to think about. >> I understand that both you and Sydney >> I understand that both you and Sydney were gymnasts, so you were getting your were gymnasts, so you were getting your getting your bones nice and strong in getting your bones nice and strong in those adolescent years and into your 20s those adolescent years and into your 20s and well, and speaking of that, what and well, and speaking of that, what kind of exercise do you think we should kind of exercise do you think we should include in our daily work week so that include in our daily work week so that we can be well-rounded and improve our we can be well-rounded and improve our bone density?

bone density? >> I think it's really important that >> I think it's really important that people do all different modalities of people do all different modalities of exercise.

exercise. exercise. I'm going to go through the breakdown of I'm going to go through the breakdown of what's recommended and I think sometimes what's recommended and I think sometimes when I first say it out loud, it sounds when I first say it out loud, it sounds overwhelming. So, just stay with me and overwhelming. So, just stay with me and I'll walk you through how you can sort I'll walk you through how you can sort of like combine a lot of these things so of like combine a lot of these things so it's not, you know, you're not it's not, you know, you're not exercising all day long. I think you can exercising all day long. I think you can get this done if you're doing about 30 get this done if you're doing about 30 minutes 5 days a week, which is ideal minutes 5 days a week, which is ideal and I also want to say like, if you hear and I also want to say like, if you hear that and you're like, "Oh my gosh, no that and you're like, "Oh my gosh, no way, I could never do that." Okay, then way, I could never do that." Okay, then start with what you can do. Maybe it's 5 start with what you can do. Maybe it's 5 minutes a day. Is that quite enough?

minutes a day. Is that quite enough? Probably not, but that's a good start Probably not, but that's a good start and then you can build on it. So, if you and then you can build on it. So, if you are able to do about 5 days a week of 30 are able to do about 5 days a week of 30 minutes, then perfect combination minutes, then perfect combination in our opinion is 3 days a week of in our opinion is 3 days a week of weight-bearing aerobic work. So, that's weight-bearing aerobic work. So, that's things like running or jumping or things like running or jumping or dancing or hiking, Zumba, something like dancing or hiking, Zumba, something like that. Um, twice a week of strength that. Um, twice a week of strength training and ideally getting to the training and ideally getting to the heavier weights um, and whatever, you heavier weights um, and whatever, you know, that's different for me than it is know, that's different for me than it is for somebody else, but ideally by maybe for somebody else, but ideally by maybe somewhere between 8 and 12 repetitions, somewhere between 8 and 12 repetitions, the weight should become so heavy that the weight should become so heavy that you feel like maybe I could do one more you feel like maybe I could do one more with good form, but not 10 more. If you with good form, but not 10 more. If you can do 10 more 20 more, you're really can do 10 more 20 more, you're really working in the realm of muscular working in the realm of muscular endurance, which I do think has a lot of endurance, which I do think has a lot of benefits for other things, but for bone benefits for other things, but for bone health, muscular strength is really health, muscular strength is really important. That resistance training important. That resistance training where by that between 8 and 12 where by that between 8 and 12 repetitions, it's really heavy.

repetitions, it's really heavy. >> My For patients that are older, I have a >> My For patients that are older, I have a lot of women that are diagnosed with lot of women that are diagnosed with pretty significant osteoporosis before pretty significant osteoporosis before they ever see me. Some of them have had they ever see me. Some of them have had compression fractures in their spine and compression fractures in their spine and and so they're they're afraid to and so they're they're afraid to exercise. Like is am I going to break exercise. Like is am I going to break

myself if I work out? So what would you myself if I work out? So what would you say to these older women that have a say to these older women that have a pretty significant bone loss already for pretty significant bone loss already for what kind of exercise is safe for them what kind of exercise is safe for them that can help them?

that can help them? >> Yeah, so we wouldn't recommend for >> Yeah, so we wouldn't recommend for somebody like that to go out and start somebody like that to go out and start running, right? It like depending running, right? It like depending certainly on where the osteoporosis is certainly on where the osteoporosis is in their body, there's some things you in their body, there's some things you should avoid, but should avoid, but at any age, strength training is at any age, strength training is recommended and I always like people to recommended and I always like people to start really like to really dial it start really like to really dial it back. So maybe starting with body weight back. So maybe starting with body weight exercises. Ideally, if you had somebody exercises. Ideally, if you had somebody who can look at your form, that's ideal who can look at your form, that's ideal so that you can say like all right, so that you can say like all right, you've done the squat body weight and you've done the squat body weight and your form is beautiful. Now let's try your form is beautiful. Now let's try holding 3-lb weights and maybe 5-lb holding 3-lb weights and maybe 5-lb weights and and really slowly building weights and and really slowly building up from there. So never jumping into up from there. So never jumping into something and just saying like, "I'm something and just saying like, "I'm going to try this with a heavy weight." going to try this with a heavy weight." But really body weight is a wonderful But really body weight is a wonderful place to start and then you can build up place to start and then you can build up from there.

from there. >> For people with osteoporosis, if you >> For people with osteoporosis, if you haven't been previously strength haven't been previously strength training, it's very important to do a training, it's very important to do a gradual progressive exposure to gradual progressive exposure to resistance training. So starting lighter resistance training. So starting lighter and then building up. And if someone and then building up. And if someone does have, you know, some pre-existing does have, you know, some pre-existing compression fracture or severe lumbar compression fracture or severe lumbar spine spine spine issues, there are some, you know, safety issues, there are some, you know, safety tips avoiding like flexion of the lumbar tips avoiding like flexion of the lumbar spine, paying attention to core strength spine, paying attention to core strength early on. There are PTs and exercise early on. There are PTs and exercise professionals that are what's called professionals that are what's called bone fit certified, which is something bone fit certified, which is something that was a program started by that was a program started by Osteoporosis Canada, which is a training Osteoporosis Canada, which is a training for people, both exercise professionals for people, both exercise professionals and physical therapists, to initiate and physical therapists, to initiate those early phases of strength training those early phases of strength training for people who are in those positions.

for people who are in those positions. >> We already have our 3 days of >> We already have our 3 days of weight-bearing aerobic exercise and then weight-bearing aerobic exercise and then twice a week, ideally not on consecutive twice a week, ideally not on consecutive days, but if it had to be I would I days, but if it had to be I would I would still take it. Um, twice a week of would still take it. Um, twice a week of resistance training and then some light resistance training and then some light impact exercise twice a week and that impact exercise twice a week and that could be as simple as like doing 50 could be as simple as like doing 50 hops, you know, take 20, 30 seconds or hops, you know, take 20, 30 seconds or jump rope with or without a rope. You jump rope with or without a rope. You don't actually need a jump rope, but don't actually need a jump rope, but just doing that impact of that hopping just doing that impact of that hopping or even heel slams where you're not or even heel slams where you're not actually leaving the ground, but you're actually leaving the ground, but you're creating some impact. And then so those creating some impact. And then so those are the things that are the most are the things that are the most important for building bone strength.

important for building bone strength. And then it's also really important to And then it's also really important to work on your balance so that you have work on your balance so that you have less chance of falling and having a less chance of falling and having a fracture. So I think that twice a week fracture. So I think that twice a week balance training for about 15 minutes balance training for about 15 minutes um, and that absolutely um, and that absolutely can be woven into strength training. So can be woven into strength training. So I'm a big fan of being really efficient I'm a big fan of being really efficient with my workout. So maybe you stand on with my workout. So maybe you stand on one leg and you do your bicep curls, one leg and you do your bicep curls, your overhead press, whatever

you're your overhead press, whatever you're doing on one leg or if that feels not doing on one leg or if that feels not quite doable to you, doing a little quite doable to you, doing a little kickstand so you have like a little kickstand so you have like a little pressure on your back leg, but most of pressure on your back leg, but most of your weight is on one side so that your weight is on one side so that you're you're you're off, you know, balanced a little bit or off, you know, balanced a little bit or even working your balance work into your even working your balance work into your day. If you're waiting for the bus, day. If you're waiting for the bus, maybe you stand on one foot. If you're maybe you stand on one foot. If you're waiting for your pasta to boil or you're waiting for your pasta to boil or you're at a kids game or something, you can do at a kids game or something, you can do balance exercise. As much as like we've balance exercise. As much as like we've got our, you know, 3 days a week, 5 days got our, you know, 3 days a week, 5 days a week, a week, all the things that are recommended, I all the things that are recommended, I also think it's so important that people also think it's so important that people try to figure out what they enjoy so try to figure out what they enjoy so that they actually stick with it. So that they actually stick with it. So even if even if it's like, all right, I don't love my it's like, all right, I don't love my strength training, but I can get through strength training, but I can get through it, but I love my dance class and so it, but I love my dance class and so maybe do a little bit more of that and maybe do a little bit more of that and you work on the strength training cuz you work on the strength training cuz you know it's really important for you, you know it's really important for you, but figure out what you like so that you but figure out what you like so that you continue to do it I think is worthwhile.

continue to do it I think is worthwhile. >> Yeah, I like I love Zumba, but I I >> Yeah, I like I love Zumba, but I I wouldn't ever do it in a class with wouldn't ever do it in a class with other people watching. So honestly, I other people watching. So honestly, I just like to get on Zumba on YouTube and just like to get on Zumba on YouTube and shake it out in the privacy of my own shake it out in the privacy of my own home.

home. home. >> I want to add just like you mentioned >> I want to add just like you mentioned now you have a lot of patients have now you have a lot of patients have osteoporosis. I'm sure you have a lot of osteoporosis. I'm sure you have a lot of patients who also have osteoarthritis.

patients who also have osteoarthritis. Um, and also they tend to be the same Um, and also they tend to be the same people. You know, we love like jumping people. You know, we love like jumping and impact is great. Um, jumping impact and impact is great. Um, jumping impact exercises have a special effect on our exercises have a special effect on our hip region, which is of course an area hip region, which is of course an area at risk for a fracture. But, as Sid at risk for a fracture. But, as Sid mentioned, you don't have to do a ton of mentioned, you don't have to do a ton of jumping, you know, two or three days a jumping, you know, two or three days a week uh, is is great. If you are someone week uh, is is great. If you are someone whose joints aren't bothering them, you whose joints aren't bothering them, you can actually do a little jumping every can actually do a little jumping every day. It doesn't have to be a ton. It day. It doesn't have to be a ton. It could be, you know, could be, you know, 20 jumps a day, something like that. Or 20 jumps a day, something like that. Or you could do 30 jumps a few days a week.

you could do 30 jumps a few days a week. If that's too much, maybe try just two If that's too much, maybe try just two days a week, you know, depending on how days a week, you know, depending on how your joints feel. And for people who your joints feel. And for people who can't do the the heavier impact, like a can't do the the heavier impact, like a little drop jump off of an 8-in step little drop jump off of an 8-in step with a rebound is a classic example.

with a rebound is a classic example. There are like less intense forms that There are like less intense forms that still create, um, still create, um, that type of impact that can stimulate that type of impact that can stimulate some bone density at the hips. So, my some bone density at the hips. So, my favorite example is heel drops, favorite example is heel drops, uh, which I know Sid has recommended to uh, which I know Sid has recommended to clients for years, which is you clients for years, which is you basically go up on your tiptoes and then basically go up on your tiptoes and then drop down on your heels. Um, and that drop down on your heels. Um, and that can be a nice alternative for people can be a nice alternative for people who, who, who, um, you know, maybe you're getting back um, you know, maybe you're getting back pain with the with the jumping or even pain with the with the jumping or even women who have prolapse and um, urinary, women who have prolapse and um, urinary, you know, leakage when they're trying to you know, leakage when they're trying to jump. It's just a little bit less jump. It's just a little bit less intense, but still kind of is creating intense, but still kind of is creating that that impact.

that that impact. >> That was One thing you brought up is a >> That was One thing you brought up is a rebounder. A lot of my patients have a rebounder. A lot of my patients have a rebounder. Do you think there's any rebounder. Do you think there's any evidence to using a rebounder that being evidence to using a rebounder that being beneficial?

beneficial? beneficial? >> The There are studies on this, but a lot >> The There are studies on this, but a lot of people feel like it's easier on their of people feel like it's easier on their knees. Um, there's a limited amount of knees. Um, there's a limited amount of research on this, but, um, it's not as research on this, but, um, it's not as effective as land-based jumping, but effective as land-based jumping, but does improve, um, strength in the lower does improve, um, strength in the lower extremities, can help with parameters of extremities, can help with parameters of balance, and has, um, some bone bone balance, and has, um, some bone bone health benefits. It's just not as much health benefits. It's just not as much as land-based jumping, but again, you as land-based jumping, but again, you have to meet yourself where you are and have to meet yourself where you are and give yourself some grace.

give yourself some grace. >> I'm trying to uh, be sensitive to your >> I'm trying to uh, be sensitive to your your time is valuable and our listeners.

your time is valuable and our listeners. So, thank you very much for coming on So, thank you very much for coming on today and uh, just promoting your today and uh, just promoting your awesome book. I really do think that awesome book. I really do think that this complete bone and joint health this complete bone and joint health plan, this what it looks like everybody.

plan, this what it looks like everybody. This should be on your shelf and This should be on your shelf and