

# Natural Approaches to Bone Health

**Margie Bissinger, MS, PT, CHC**



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**Rebekah Kelley:** Welcome to the Humanized podcast, your health personalized. I'm your host, Rebekah Kelley. We have a great guest today, Margie Bissinger, and she's here to discuss Natural Approaches to Bone Health. Let me remind you before we get started though, to subscribe and get access to all Humanized videos, podcasts and transcriptions from all of our thought leaders on personalized health at [HumanizedHealth.com](https://www.humanizedhealth.com).

Thank you Margie, for being here. So happy to have you on the show.

**Margie Bissinger:** Oh, thank you so much for inviting me.

**Rebekah Kelley:** Before we get started, I did want to give our listeners and viewers a little bit of information about you. Margie Bissinger is a physical therapist, integrative health coach, happiness trainer, lecturer, and author. She specializes in helping people with osteoporosis and osteopenia improve their bone health through an integrative, comprehensive approach utilizing whole foods, exercise, supplements, mind-body relaxation techniques, and happiness training.

So happy to have you here. Please, share with us, help us, make us smart about what we can do to help our bone health.

**Margie Bissinger:** Great. Okay, so I'm going to share my slides and we'll get started. So we're going to go over today what we can do to improve our bone health naturally. And the good news is there so much that can be done. That's why I'm really excited to be here and share this with everybody. Just a disclaimer, that the information presented should not be construed as medical advice. It's not intended to replace consultation with your physician or healthcare provider.

So, just quickly, what is osteoporosis? The word means porous bones, and we can see there's a big difference. This is through the microscope. The bone on the right, which is strong, healthy bone versus the bone on the left, which is osteoporosis.

And there's a couple of things in this definition. So in terms of this definition, it shows low bone mass, there's a deterioration of the bone tissue, disruption of the bone architecture, compromised bone strength and the key thing is increased risk of fractures. And you can see in this picture on the right, the top is healthy bone. Here's where we see the bones changing shape, and there's also, we see that there's holes in it. There's a lot more space. So it's just not strong bone that we'd like.

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This is critical because so many times people go to the doctor or get a DEXA scan, the bone density test, and they'll find out they have osteoporosis. And then they're just put on medication.

But the problem is there's so many root causes. And sometimes I look at it as a blessing in disguise. There's a silver lining because rarely is it just in isolation. You know, if you have inflammation in your body, that may be a cause of osteoporosis. Issues with your gut, or you're not absorbing, or you have micronutrient deficiency, you're not getting your nutrients. Celiac disease. So these underlying causes need to be looked at and addressed. And the good thing is that when they are, not only do you improve your bone health, but everything gets better. So a lot of times this can just be a gateway for your overall health, as well.

So I look at, I have four areas. I've been working with people with osteoporosis for over 25 years – so nutrition, exercise, stress reduction and happiness. Those are sort of the four pillars of all the programs that I teach and work with people. So we're just going to go over this sort of briefly today, just to give you some nuggets that you can take away and put into your life.

In terms of exercise for strong, healthy bones, there's two types of exercise that in the research has actually shown to increase bone density. Number one is resistance training, and I'm going to go into that in a bit more detail. That's like strength training. And number two is weight bearing, and that's when you're exercising against gravity. So that would be walking, dancing, jumping, anything that you're doing against gravity.

In terms of strength training and resistance, it can be free weights. What the theory is, is when you're contracting the muscle against a resistance, that's a stimulus to say, Hey, we need more bone here. So free weights, resistance bands and the exercise equipment at the health club. So the key, what I see all the time is that people, maybe they're using 2 pounds, they're not really doing enough. And the research has been very positive. There was a study called the Lift More Study that really showed that people with osteoporosis and older individuals can do strength training with significant weights. But here's the key. I firmly believe – and this is a tip of mine – if you can, I would see a physical therapist to really custom design a program for you, so that it's safe and effective. And most of the time, it can be also covered by insurance. So I'm a big believer, if you have osteoporosis to really see a physical therapist and just trying to figure out what to do yourself.

But there are certain things that we have to avoid because people have gotten injured and had fractures because of this. So there's some unsafe forces. So number one is

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flection and forward bending, so that's rounding out your back. So if you have osteoporosis, and a lot of people don't know about this, and I'll explain why in a minute, you want to avoid anything causing rounding or forward bending. Not to say you can't do exercises. You just bend from the hips, not with a straight back, not from the waist.

The second thing is end range. So doing extremes, rotation and side bend, put a lot of torque on a spine, where there is some bone loss. So they did a study at the Mayo clinic a while ago, and they looked at fractures, and they had 59 post-menopausal women who had osteoporosis. And they looked at the fractures over a 6-year period of time, and they found extension going backwards, 16% fracture rate. Flexion, forward bending, 89% fracture rate. This is why this will never be repeated. And the combination was 53% and the control group was 67%.

So the reason for that is... this is showing, this is an ideal spine. No one over 30 really looks like this, but ideally, you see it's nice and square shaped. This is the back, and this is the front. But if you look here, we see this is a spine that has osteoporosis, with some fractures. But look where the fractures are. They're all in the front of the spine, or they're crushed in their front. So take the spine now and round it out, you're getting the fulcrum right where it's already weakest. So that makes sense that we're getting fractures with rounding and forward bending.

So those are the two things I want to tell you to NOT do. And same thing if you're in yoga – some people ask me what about tai chi yoga, Pilates. I love all those. And I love tai chi, it's amazing for balance, but yoga and Pilates have a lot of flection postures, rounding postures. So you just tell the instructor that you need to do neutral postures, or extension postures – but just avoid that rounding and forward bending.

So a good exercise program. What we want, we want resistance training. We want weight bearing, posture exercises, balance and aerobic training. And the thing is, posture is so important because we just talked about rounding, but so often people are in a rounded posture. And one of the things I'll be giving you is posture exercises that you can use.

But balance is also essential. As we get older, if we don't use it, we lose it. And so it's really key. And most people just fracture a hip, it's from a fall. So balance is essential. Everybody should be doing balance exercises.

So that's just brief on exercise. And then I wanted to go into nutrition. Some key points.

This is a list of some of the bone-healthy nutrients. I'm just going to focus on a few today. Vitamin D. And with COVID now, everybody knows how important vitamin D is

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for our immune system, but it's also critical for calcium absorption. We can get some from sunlight, some from fatty fish. If you are having vitamin D or taking a supplement, best to take it with a meal containing fat. But here's the key thing. There is a blood test that most doctors do order. It's called 25-hydroxy vitamin D. And you want to test and not guess – because it's so important that you have the right vitamin D level that you can see when they do the blood work, where your level's at, and that will really determine how much vitamin D you need. Most people, I find, need at least 2,000. So between 2,000 and 5,000 IUs. But get tests and talk to your doctor or healthcare provider about it, so you'll know exactly.

Calcium. What I see in calcium is people are getting too much, because they're getting it in their food, and then the doctor will tell them, oh, take 1,200 milligrams of a supplement.

Calcium is something where more is not better. There's research that's still not a hundred percent conclusive, but they're showing too much calcium can cause kidney stones. It can cause problems with your heart and calcifications. So we definitely don't want more. It's the combination of food and supplements.

So here in this chart, this is the recommendation in the United States – 1,200 for women over 50 and men over over 71. But it's a combination from both food and supplements, and even the National Osteoporosis Foundation says get it from food, and only if you're not getting enough from your food, then get it from your supplements.

You can look at a food label and if it says 30% calcium, add a zero. That will mean 300 milligrams. Adding leafy green vegetables is my favorite way to get calcium because you're getting all the other things. It's not just calcium. We want all the other bone-healthy nutrients. So very important. And just to know, there's something called oxalic acid, and that combines with calcium and it makes it so it's indigestible. So you won't get the calcium absorbed. And the reason I say that is a lot of people think spinach is a great food for your bones, but you're not getting the calcium. So spinach, Swiss chard and beet greens, they're high in oxalic acid. Not that you shouldn't eat them, but just don't count that as your daily calcium

Here's some of my favorites. Collard greens – a cup cooked has 268 milligrams. I like to make it in a wrap, and you can even use a wrap on your burgers. You can make turkey burgers bean burgers, and use the collards as a wrap. Bok choy is great – 158 milligrams. Kale, 94. What we learn gets passed to the next generation. This is a patient of mine's son who, when the minute she'd come home from the grocery store, Did you get kale, did you get kale? Because kale chips were his favorite treats.

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Magnesium. This is essential. Because again, a lot of doctors will just say calcium and vitamin D. You MUST have the magnesium for calcium absorption. It also helps with relaxation, constipation... and most people are deficient. This is the RDA – 320 for women, 420 for men. However, most doctors... it used to be a one-to-one ratio. You know, in primitive cultures, that's what it was when we farmed the land, one-to-one calcium to magnesium. But now most people feel at least 50%. So if you're getting a thousand magnesium, at least – I mean a thousand calcium, at least 50 [500] magnesium. And these are just some foods that are high in magnesium: pumpkin, pumpkin seeds, cacao powder, black beans.

The other one I want to mention, because this is overlooked and essential – everyone should have vitamin K2. It activates two proteins. One's called osteocalcin, which makes sure that the calcium gets into your bones and teeth. And the other one is called the Gla-protein. That takes the calcium out of the soft tissues, out of places it's not supposed to be, so that we're not going to have those problems with too much calcium.

So this K2 is essential, especially if people are on very high- dose vitamin D these days. You really want to make sure you get your K2. And these are just some foods high in it. The best food – in Japan, they have something called natto. It's sort of slimy and doesn't taste good, so no one I know eats it. I have one patient who eats it. But areas in Japan where natto is high, significantly reduced incidents of osteoporosis. So you can get vitamin K2 from animal foods, you know, like egg yolks, chicken breasts, or you can get it from fermented foods, like sauerkraut. But most people don't get enough unless you eat natto in your food. So it is something I suggest getting supplemented. Again, talk to your doctors. But there's two types. There's MK4 , which is from natto and – I'm sorry, MK4 is synthetic and MK7 is fermented. So I'm a big believer. I personally like the MK7, but, very important to get your K2. And this study was done showing 3 years of people who supplemented 180 micrograms had decreased bone loss of the lumbar spine and femoral neck, improved bone strength and decreased loss of thoracic vertebral height. So there's real research on this and I think it's becoming more and more popular, but it's not something most doctors are ordering.

And lastly, I want to say, about optimizing digestion, it's good to eat the food, but we need to also digest it. So if you have any digestive issues, you really should take care of that and make sure you're chewing, make sure you're relaxed when you're eating.

And stress in our bones. So what happens is, cortisol is a stress hormone, and it actually causes a reduction in bone density because it reduces the activity of the osteoblasts.



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And they've done studies on this, on humans and animals, showing the relationship between reduced bone density and stress.

So stress is everywhere, that's a problem. But my first tip, and again, I can speak hours on stress, but the best thing to start with, and I start here with everyone, is just doing some nice, deep breathing before you eat because it will relax you, you'll be able to absorb your food better, and it forces you sort of... you're eating three times a day so you'll remember, we all eat, that you can do some deep breathing. It'll remind you to do that.

And lastly, happiness, since I teach happiness. They've done studies showing that life satisfaction predicted bone loss. So by increasing your happiness, you can improve your bones. So how great is that? And one easy technique is just to start looking for the good, and when something good happens, savor it for 20 seconds.

So I hope you can use all these techniques. It's just the beginning. There's a lot more information you can find on my website at [MargieBissinger.com](http://MargieBissinger.com), as well as on the notes here for the Humanized podcasts. There's going to be a special gift for posture of how you can do easy exercises to improve your posture, which is so important for our bones, and to exercise in good posture. So I'll have all of that for you.

So do pay attention to your bones because you have them for your life, and there's so much we can do. That's the really good news. So that as you get older, you can enjoy your life. You can really live, do, travel and be active, as well. So it's a win-win situation. So thanks so much for having me.

**Rebekah Kelley:** Thanks, Margie. That's really great information. Let me remind you to subscribe and get access to all Humanized videos, podcasts, transcriptions, from all our thought leaders on personalized health at [HumanizedHealth.com](http://HumanizedHealth.com). Thanks for being with us, Margie.

**Margie Bissinger:** Thank you so much for having me.