



Transcript: #367 Is Bone Broth Contaminated with Heavy Metals, and Is It Safe to Drink?
with Lara Zakaria

Wendy Myers:

Hello, everyone. I'm Wendy Myers. Welcome to *The Myers Detox Podcast*. On today's show, we're going to be talking about whether bone broth is contaminated with heavy metals? Is it safe to drink? This is a question I've definitely wondered about myself. I have researched it. I have an article on myersdetox.com about this specific subject. I wanted to do a show on this because I know people out there are concerned. They hear, "Oh, there's lead in bone broth," or "There's heavy metals in the animal products and the animals bioaccumulate heavy metals and toxins." They want to become vegan or vegetarian because of that. The reality is that all of our food supply is contaminated, to a degree. You don't want to throw the baby out with the bathwater.

Wendy Myers:

We're going to talk about whether bone broth is safe to drink. Does it have high levels of lead? We'll talk about the research that surprisingly shows that both organic and conventional bone broth have about the same level of metals and contamination. We'll also talk about collagen protein powders. Those are super popular. Are they all the same or are they a replacement for drinking bone broth? We're going to talk about some interesting distinctions there. We'll talk about some people who should avoid bone broth. It's not for everybody. It's a panacea for some but could be a poison for others. We'll discuss four different situations where people should avoid bone broth temporarily. We'll also talk about some tips on how to incorporate bone broth into your diet.

Wendy Myers:

I know you guys listen to this show. You're worried about heavy metals and toxins. I created a quiz to help you discover your relative levels of toxic body burden. If you go to heavymetalsquiz.com, you can take a two-minute quiz. I ask

you several lifestyle questions and help to determine your relative levels of toxins in your body. After the quiz, you get your results and you get a free video series that helps to answer a lot of your questions about detox. Questions like where to start? What kind of testing should you do? What supplements or protocols do you need to do, to start detoxing your body of heavy metals and chemicals? Go check that out at heavymetalsquiz.com.

Wendy Myers: Our guest, Lara, is a functional medical pharmacist and a clinical nutritionist based in New York City. She's a graduate of the Ernest Mario School of Pharmacy, at Rutgers University. She spent 20 years in community pharmacy practice. After developing an interest in nutrition, she earned an MS in Nutrition from the University of Bridgeport and qualified as a Certified Nutrition Specialist, as well as an Institute for Functional Medicine Certified Practitioner. Lara currently practices as part of a multi-disciplinary functional medicine practice and supervises a professional mentorship program for nutrition and functional medicine.

Wendy Myers: She's a co-owner of Pharmacy Evolutions, a functional medicine education platform and consulting group, focused on professional development for pharmacists. Lara is also an adjunct professor of Nutritional Biochemistry at the University of Bridgeport. You can learn more about Lara, her work and work with her in her functional medicine practice at drkarafitzgerald.com. Lara, thank you so much for joining us on the show.

Lara Zakaria: Thank you for having me.

Wendy Myers: We're going to talk about bone broth and heavy metals and toxins in bone broth. Why is bone broth important? Why has it become so trendy?

Lara Zakaria: It's interesting, a few years ago if you told me that one day in New York City we would be picking up some bone broth at the brotherly and walking around sipping on it, I would have told you that you're crazy. Who would want to do that? It really has become this major trend. I even found out that some of the local brotheries based in Brooklyn are actually shipping across the country now, during 2020 COVID pandemic. They've started to ship nationally. I think it really goes to highlight how folks are getting on the bone broth wagon. There's a few reasons for that, I think.

Lara Zakaria: The first thing that I think comes to most of our minds is that it's very healing for the gut. There's some specific amino acids, specific minerals and nutrients that help to support gut healing. It's quite restorative. I think that's the biggest reason folks gravitate towards it. It's got a really nice balance of minerals, too. You get this really dense, rich grouping of minerals. I think it's because of that balance that it can be really restorative. Then there's the piece where it does support collagen rebuilding. Collagen, of course, makes up our skin, our hair and our nails. Just adding that extra little boost can be really nourishing and you can

see the results. You can see the benefits. Who doesn't want shiny hair, bright skin and great nails?

Lara Zakaria: The other piece of it is that old-fashioned thinking about using bone broth when you get sick, like chicken soup when you're catching a cold or when you're not feeling so well. It turns out that we do get a lot of the benefits from bone broth, the immune boosting potential, probably having something to do with how it supports our gut. Also, because of the way that those nutrients come together, we pull some of those immune factors from the collagen from the bone of the animal that we're using. All that comes together and just works beautifully and synergistically. It helps to support our immune system. It turns out that grandma was right. Chicken soup is good for the soul and for your immune system, too.

Wendy Myers: Yes, there's research to support that it is.

Lara Zakaria: There's research to support all of this. Yes, but grandma was really smart.

Wendy Myers: It reduces the length and duration of a cold and the severity of it as well.

Lara Zakaria: Exactly.

Wendy Myers: It's great for joints too. I think that in the United States, we don't have enough culture of eating soups and broth. Around the world, they don't let anything go to waste, any part of the animal. Whatever is left over, they're making soup out of it. People are not eating enough soups. That's why our joints are failing.

Lara Zakaria: I love that you brought that up, this idea of using the full animal from tip to tail, right? You use the meat. You eat the meat. You use the organs, and then you use the cartilage in the bones that are left over. You make this beautiful soup out of it. I think when we think of soup, we think of pulling it out of the can and all the sodium and junk that goes along with that. Traditionally, soup has been made from these leftovers. It's just another beautiful way to use up the whole animal.

Wendy Myers: Yes, milk every last mineral you can suck out of the animal.

Lara Zakaria: Absolutely, yes.

Wendy Myers: Glucosamine and chondroitin supplements that you get in soup. You get it in broth.

Lara Zakaria: There's something to be said, right? The anti-aging movement has really highlighted this piece. We think of anti-aging, we think of cosmetic things, but anti-aging is also thriving well into your 50s, 60s, 70s, 80s, 90s and 100s. It's a lot of these practices, when you look at some of those longevity studies, they revolve around these traditional ways of eating and these traditional ways of using animals. Using everything from the land and pulling it together.

- Lara Zakaria:** I think it goes back to the synergy. It's not bone broth by itself, but it's the synergy of everything together. When we make a bone broth, you're usually also adding vegetables. You're adding root vegetables. You're adding carrots, celery, onions and garlic. All these other beautiful aromatic herbs. You're putting that together. Maybe you're adding some more oils and adding some more anti-inflammatory benefits. It all just comes together beautifully, right?
- Lara Zakaria:** I think all that together, the energy that goes into making it, the camaraderie in the kitchen when someone's cooking and the beautiful aromas that surround the kitchen and flow into the house, that's all a part of it. I think that's part of the traditional cooking that we've lost a little bit in the last few years. I think it's making a bit of a comeback, but I think there is something to be said about that.
- Wendy Myers:** I love making bone broth. Whenever I'm having chicken or I'm cooking other things, I'll save up all the bones. I'll stick those in the freezer and then they're ready to go whenever I want to make bone broth. You just add some herbs and some salt and pepper. It's so easy to make. You just throw it in a pot with some water.
- Lara Zakaria:** Especially if you have a pressure cooker, it's so easy in a pressure cooker. Absolutely, yes it's funny, I have all these carcasses in my freezer because every time I have a whole chicken or I've got leftover bones from something that I bought, it goes in the freezer and they just pile up. I'm never at a loss for bones. They're selling bones now. You can get them at the butcher. You can get them at Whole Foods. They're so easy to buy because it's become more common now, to request them. There's never a shortage.
- Wendy Myers:** I'll make a big batch or a big pot of it and put it in little plastic things to freeze it. I'll have it for months. I always make rice with it. I'll use it as a base for a lot of different dishes.
- Lara Zakaria:** One of my biggest pet peeves is not using bone broth stock for rice. It makes such a difference in the flavor. It's like night and day. It's life changing. If you've never used stock to make your rice, it's life changing.
- Wendy Myers:** It makes it so much healthier, too. I'm so happy, I just moved to Mexico and I found a place that makes beef bone broth. I don't love making beef bone broth.
- Lara Zakaria:** It's a little harder. It's harder to get enough bones to make it.
- Wendy Myers:** You have to skim it. There are just little details there. So, I found this place that makes organic bone broth. Oh my God, I can't believe it! I'm in Mexico and I can eat my broth.
- Lara Zakaria:** Awesome.

Wendy Myers: There's a big concern about heavy metals in bone broth. I think there is a lot of misinformation out there. I think when people hear, "There's lead in bones. There must be lead and other heavy metals in bone broth," they just think, "Oh, well, I need to avoid bone broth now." What people don't understand is that all food has some degree of contamination. We can't throw the baby out with the bathwater. Vegetables have toxins in them. Your water can have toxins in it. Let's talk about the heavy metals in bone broth. Is it really the concern that's made out to be, on the internet?

Lara Zakaria: Great question. Let me start by saying the reason this took off is that there is some truth to it. There's always some truth to everything, right? As animals, as well as humans, we do tend to store metals in our bones. That is absolutely true. In fact, we're finding women of this generation are starting to have osteoporosis as the generation that grew up around lead paint. They grew up around it their entire life. They didn't start removing lead paint until the '70s or '80s. They had a lot of previous exposure to lead. They go through osteoporosis and they start losing bone. What happens is they start leaching lead.

Lara Zakaria: All of a sudden, we see these dramatic jumps in the amount of lead, even though they don't have any current exposure to lead. There is some truth that we do get metals in bone, as do animals. Another source of contamination is soil. You have to have a factory somewhere. Certain metals get into the air. They end up landing in the soil. The cow eats that grass that's grown in that soil. It takes on that heavy metal load. That starts to accumulate. The other place besides the bone that we usually hold on to metals is in fat, in subcutaneous fat in particular, so under our skin. That starts to accumulate. You slaughter the animal. You use the bones to make broth. The question has always been, "Does that translate to increased amounts of metal in the broth?"

Lara Zakaria: You have to keep in mind a couple of things. There is a chemical reaction that's happening when we make bone broth in a traditional way. There's acid combining with heat. If you're using a pressure cooker, there's also pressure on top of that. That actually creates a solution where you get parts of the metals and some of the minerals to separate from the rest of the solution. The other thing that happens is that most of us when we make broth, we tend to skim that gunky fat layer that ends up accumulating at the top. As I said before, metals love to sit in fat. If you remove that fat piece, you're also ending up removing some of those minerals and some of those metals, as well.

Lara Zakaria: Between those two processes, we theorized, "Would that actually reduce the amount of metal that then is in the bone broth?" Actually, that question came up in our clinic a couple years ago. We were sitting around talking and saying, "Well, we think and there has been talk about there being less metal in broth than there would be if you just chewed on the bone. If you just chew on the bone as it is, you're going to have less exposure to that metal." We actually set out to figure out if this was true. We ended up taking some samples and sending

them off to a lab, so that we could measure the amount of minerals as well as the amount of metals.

Lara Zakaria: One more piece I want to add to that is that minerals like calcium and iron end up actually blocking the absorption of other heavy metals, like lead, cadmium or mercury. In cases where we see folks are depleted or not eating enough of those minerals, we might also see cases where they have elevated exposure or elevated amounts of circulating heavy metals. Knowing that there's minerals in bone broth, we also wanted to measure the amount of minerals that are in the bone broth so that we could see if there was an imbalance of those two. There were a lot of those minerals that could also help protect us from any potential contaminants, as well.

Wendy Myers: That's such a good point because I love to make distinctions like this, so that people aren't fearful of bone broth, which is so nutritious. You need to be adding this to your diet more so than you are right now. I found you guys because I was actually researching an article on bone broth. Is it really toxic? Is it really something to be concerned about? You work with a functional medicine team under the direction of Dr. Kara Fitzgerald. I love that you guys did this research study to investigate lead and toxic minerals in different bone broth and collagen supplements. A lot of people are concerned about gelatin and collagen protein powders, and things like that. Can you talk about what initiated that study and some of the results as well?

Lara Zakaria: Absolutely, so we're giant nerds. It is what it is. We meet once a week. Our entire team meets once a week. We'll sometimes get into these discussions. One of the questions that came up was exactly that. Here we are recommending bone broth to everybody and recommending collagen supplements. We'll often use collagen-based proteins. Are we doing more harm than good, or is this something that we should continue to promote? Things can be trendy. That doesn't mean that you don't want to take an analytical look at it and make sure that it's appropriate. Most importantly, that it's appropriate for everybody. That's a really important point to make. Something might be great, but it doesn't mean it's great for you.

Lara Zakaria: I want to recognize that not everybody does great on bone broth, not everybody tolerates bone broth and not everybody wants to have bone broth. That's okay. We wanted to know a little bit more about the potential for toxic accumulation if we were recommending a lot of bone broth. We actually worked out a deal with one of the labs that we use often for some of the functional medicine testing, the advanced functional medicine testing. Their name is Doctor's Data. They agreed to help us out. This little experiment grew. One of my colleagues actually made some bone broth. She made a batch of organic bone broth and conventional bone broth. We also got some store-bought organic bone broth.

Lara Zakaria: Then we got a collagen protein supplement, like the collagen powder. We sent it off to the lab and we had them compare them. Then we got all the data. They

pulled some of the mineral content as well as the heavy metal content. There were some surprising results. We did not expect to be that surprised. We had our biases of what we thought would work. I think a lot of people that are listening are probably like, "Oh, I bet the organic one was so much better and the conventional one wasn't great." I can't tell you all the results of this, because it's actually a pretty long report. We ended up asking 11 different questions and answering 11 different questions. You have to read the whole thing or else we'll be here all day, but I'll give you some of the highlights.

Wendy Myers: I'll give you guys a link to that study down in the podcast show notes on myersdetox.com. There'll be a link for it if you want to read it. It's really good. I highly recommend that.

Lara Zakaria: It's so interesting. There's so many awesome details in there. If you're nerds like we are, I think you'll love it. First of all, one of the surprising things is there wasn't a big difference in the bone broth between the conventional and the organic. That was surprising and actually really made us feel better, because you can't always get a hold of organic. Financially, it may not be accessible or you might grab what's available on the shelf and it may not always be organic. It was good to know there wasn't a significant difference between organic and non-organic.

Lara Zakaria: We're not sure why. We think it might have something to do with the way we made it. We used the same exact method of preparation for both batches for the conventional and the organic. Again, it might be a combination of the chemistry that's happening and the fact that she's skimmed off that fat layer as well. That might have reduced some of the potential exposure to the toxin. That was great news.

Lara Zakaria: The other thing we thought we discovered is that the amount of lead in particular, was less than the amount of what the EPA deems as safe in drinking water. This was great news because you're not going to drink as much bone broth as you will water. As long as you're drinking a normal amount, about one to three cups of bone broth a day, you're going to be well, well below what is already in drinking water. That also made us feel really safe and comfortable to say, "Yeah, I think it's okay for us to be recommending bone broth to our patients." That was awesome.

Lara Zakaria: The other thing we found out was that there are a significant amount of minerals in the bone broth. We knew that, but it was nice to get that confirmation. Remember, having a good mineral content boosts the ability for you to block off the potential absorption of heavy metals. That not only is the heavy metals that are in the bone broth, but that could be other heavy metal exposures. Helping to recalibrate and rebalance some of those minerals in general is going to protect you from exposure to heavy metals, whether it be from your bone broth or just from living on this planet in 2021.

Lara Zakaria: Those were the highlights and the big takeaways for us. Like I said, it made us feel really confident moving forward and whether we recommend it for folks to make it at home or the folks that don't have time and want to go buy it off the shelf. We now knew that as long as it was being made the right way, we're pretty safe to be recommending it to our patients.

Wendy Myers: What about the collagen protein powders? They're so popular right now. There are so many different collagen proteins like Vital Proteins and so many different brands out there. They are really doing a lot of heavy marketing with the collagen protein powders. What is your take on those and the safety of those?

Lara Zakaria: Here's something that I learned. I did not know this until we started digging deeper, when we did this report. Collagen protein is not typically from bone. Did you know that?

Wendy Myers: I haven't really looked much into sourcing, because I'm not a big protein powder person.

Lara Zakaria: You would think of collagen protein and you would think, "Well, collagen comes from bones and cartilage, right?" That's typically where we get it from. That's how we make our bone broth. You would think that that's where it comes from. As it turns out, collagen powders, the high quality ones because we only looked at the good stuff, are actually primarily from the skin. Skin does contain collagen. It's not a bad place. We talked about using the whole animal from tip to tail, so I'm not necessarily opposed to that. But that means that the nutrients, the minerals and the metal composition is going to be different in the protein powder versus the bone broth. There was a difference in the two. That was a big aha moment for us. It is not a substitute.

Lara Zakaria: Collagen powder is not a substitute for bone broth. It's not going to be the same thing. For the most part, when we looked at the samples, they were pretty low in terms of heavy metals. We weren't worried about the heavy metal content. Some companies actually go out of their way to provide heavy metal reports, which is awesome. I think if you are using a particular company and they provide that, it's a good idea to use it. Most of them were super, super low. Most of them seemed safe. They were below what the EPA deems as problematic. From a safety and toxicity perspective, it wasn't problematic.

Lara Zakaria: There have been a few reports of a couple of companies where there were elevated amounts of certain metals. I'm going to guess without really knowing, that those particular cases might have been anomalies or particular contamination issues with certain batches or maybe a manufacturing process that's unique to that company. Generally speaking, protein powders or the collagen proteins seem to be pretty safe. I would recommend sourcing from cleaner varieties. When we did do a sample, the particular brand that we used and we mentioned the details about it in the report, was not certified organic, but they do use pasture-raised cattle.

Lara Zakaria: They are raised in Brazil and Argentina, where the practices are the closest and probably even better than organic practices. We didn't feel that the certification for organic was necessary. That seemed to have even less contamination than what we've seen reported for other companies. We don't necessarily think that the stamp of organic is necessary. The source and the way that those animals are raised, I think, is very important.

Wendy Myers: Organic certification is so expensive. It's not feasible for certain manufacturers. You make that point about the distinctions. You have to call your manufacturer to figure out the source. Where is this coming from? I love that you made that distinction. The collagen protein powders are not a replacement for bone broth. They never are. There's never a quick fix. Protein powders are processed. They're a processed, powdered product for convenience. Yes, they provide nutrition, great, but you get more bang for your buck just boiling your chicken bones. It's not hard to do. It just takes a few hours.

Lara Zakaria: It's not hard to do. You could buy store-bought and you still get that benefit. If you really don't have the time or you have a super small freezer and you can't freeze that many bones, there is a secondary option. I'll be honest with you, I do sometimes recommend the collagen protein powders for folks. They can be convenient. They can be really helpful for specifically replacing collagen for hair, nails, skin and joint issues.

Lara Zakaria: There are actually some great professional brands that I've also used and recommended to my clients, especially for joint issues or for folks that have had surgery. I have one person that had knee surgery. We put them on a nice collagen support, specifically because we do know there is some good research that those collagen supplements can help to reduce inflammation and speed up healing. There are some nice therapeutic uses for them. If we're talking about day-to-day though, go for the food, go for the bone broth.

Wendy Myers: For me, the store-bought canned bone broth just doesn't have the same flavor.

Lara Zakaria: They really don't.

Wendy Myers: They just don't taste as good. It's so easy to make your own. I have some recipes on myersdetox.com. I have one for beef broth and one for chicken broth. They are super easy to make. You mentioned some contraindications for bone broth. Can you talk about some of the downsides of bone broth and some things that people need to look out for, that might react to bone broth?

Lara Zakaria: Absolutely. One of the things you have to keep in mind is that bone broth can be higher in sodium. If you are somebody who is restricted to the amount of sodium that you can have, then you want to monitor the amount of bone broth that you have. If you're making your own bone broth, you can better control the amount of salt that goes in there. Just keep in mind that that is something to pay attention to.

- Lara Zakaria:** Now, I will argue that with most people who are sodium restricted, there's probably more that we want to do upstream. In functional medicine and personalized nutrition, we're always thinking, "Why is the sodium sensitivity happening?" There might be some electrolyte imbalances that we can work on, some hydration techniques that we can work on and making sure you're drinking enough water in general. Making sure that you're getting all the other important electrolytes like magnesium and potassium, and that all those are in balance. Often, we can help to reduce that sensitivity to sodium, but it is important to pay attention to that.
- Lara Zakaria:** The other piece that I have found is because it's so rich in certain amino acids, folks who are specifically sensitive to glutamine, who might get anxiety when they get a lot of glutamine, sometimes don't do well on bone broth. That added amount of glutamine that's in the bone broth converts to another form of that amino acid called glutamate that causes excitation. That glutamate is known as a neuroexcitatory compound. That can cause a little uptick in some people's anxiety.
- Lara Zakaria:** I will also argue from a functional perspective that that conversion and that sensitivity is often due to either a genetic thing, where you just make too much of that. It also could be due to deficiencies of other minerals like magnesium. Sometimes, because there's magnesium in the bone broth, if you really focus on eating a lot of magnesium-rich foods or you add some more vegetables in there that contain magnesium, that can help offset that difference. For some people, the bone broth doesn't bother them. Even if they are a little sensitive to a glutamine supplement. Those are two things.
- Lara Zakaria:** The third one is for some folks with dysbiosis issues like SIBO, or if they have some other imbalances in the microbiome. When I say dysbiosis, that's when you have an overgrowth of some bad bacteria, viruses, fungus or mold and an undergrowth of the good stuff that makes up the healthy microbiome. If you have a condition like that, some of the ingredients in the bone broth or some of the amino acids in there and some of the nutrients might aggravate that. In those cases, they won't do great when they have bone broth. Those are very specific examples.
- Lara Zakaria:** I would say I have found that most people tolerate bone broth just fine. If you do find yourself in one of those categories that I just mentioned, working with a nutritionist who understands those things can help to rebalance that piece. You can start enjoying bone broth after that.
- Wendy Myers:** That about histamine? A lot of people have histamine reactions and their immune system is just out of whack. They're responding negatively to otherwise healthy foods. Can you talk about that?
- Lara Zakaria:** Absolutely. Histamine is one of those amino acids that can trigger that response. Histamine is something that our body, our immune system releases as a reaction

when we're exposed to something that triggers our immune response. A basic example would be allergy season. In the spring, grass pollen starts to come up. Folks who have seasonal allergies, they all know what I'm talking about, that pollen starts to come up. All of a sudden, you're sneezy. Your eyes are watery. Your nose is runny and you're a hot mess. What's happening there is that you've got part of your immune system called mast cells, it's like a water balloon. It's circulating around in your body. This pollen comes up against it, cracks that water balloon and releases histamine all over the place.

Lara Zakaria:

That histamine essentially initiates this allergic response. You get all those symptoms like the sneezing, the runny eyes and all that stuff. That's why we use antihistamines, like the diphenhydramine or Benadryl, et cetera. What that does is it blocks the histamine. It helps to dry up some of those symptoms so you don't get as much of those allergic response symptoms. As it turns out, folks who have certain dysbiosis might produce more histamine. Some folks that have certain genetic mutations, we'll call them SNPs, might also have an enzyme that's responsible for breaking down the histamine. It slows down. That particular enzyme is DAO. You either have a slow DAO and/or you might have some dysbiosis.

Lara Zakaria:

What ends up happening is you get this accumulation of histamine. It's like you've got a sink that's filling up and filling up and filling up. It's clogged. It won't drain. You add a food that's high in histamine, and all of a sudden the sink overflows. You feel like garbage. You don't feel well. It feels like you're allergic to something or you're sensitive to something. Some people have rashes as a result. Some people will get the classic allergy response as a result. Some people get headaches. For some people, it changes their ability to focus. They can't concentrate. They get a little brain foggy as a result. There's a lot of different ways that manifests. That said, I have found that those people initially benefit from removing high histamine foods.

Lara Zakaria:

Animal proteins and bone broth happen to be high histamine foods. There's a list of those foods that you could remove. Again, from a functional medicine perspective, we want to go upstream. What we want to do is try to support improving the drainage. We want to unclog that drain by fixing the balance of the microbiome and doing a good GI gut restoration, as well as supporting our epigenetics. Then we can encourage that enzyme, that DAO enzyme, to act a little bit better and a little bit faster. We can actually improve both those things through diet, lifestyle, focusing on certain nutrients, certain herbs and unclogging that sink, improving that flow of the histamine out. Most people can go back to enjoying bone broth.

Wendy Myers:

There are always workarounds.

Lara Zakaria:

I would say almost always a workaround. There's always going to be some folks that have certain foods that they don't tolerate. There's always going to be some folks with certain genetics, the way they are just made up. Improving one might

help a little bit, but not 100% of the way. It's understanding those nuances. I have found in most folks that I work with, once we start cracking away at those underlying pieces, you can get so far.

Lara Zakaria: You can actually end up improving tolerance to where maybe that thing bothers you if you have too much of it, but an accidental exposure having a little bit too much of that histamine food is not going to break the bank. It's not going to ruin everything. You're still going to be able to bounce right back, carry on and feel fine.

Wendy Myers: Right, so how are you using bone broth in your practice? What are some therapeutic interventions that you're using with bone broth?

Lara Zakaria: I love this question. When we're prescribing dietary protocols, we are describing therapeutic dietary interventions. We are using everything at our disposal in order to do that. Often, that means trying to ramp up certain nutrients that we know are going to target and help support certain pathways. Whether that's up-regulating certain enzymes and certain genetic functions, supporting detoxification, healing the gut or balancing out some hormones, we're really trying to use food in targeted ways. Sometimes I need a creative vehicle to get it there. Not only does the bone broth itself have some therapeutic benefits, like helping to heal the gut, it's going to help support a little bit of detoxification.

Lara Zakaria: It's got some collagen boosting support. It helps support cognition. It helps support bone health. There's all these great benefits to it, but it's also an awesome vehicle. A lot of times what I have folks do is use the bone broth and then have them heat it up with some turmeric and ginger. All of a sudden you've got this added boost of turmeric and ginger, which are in and of themselves great antioxidants and great anti-inflammatories. They've got a little antimicrobial activity. In and of itself, that is therapeutic. Sometimes I'll have people blend in some vegetables. We're challenging them to increase the amount of vegetables or leafy greens they're getting in, or certain vegetables that I want them to have because they have certain nutrient profiles that I really want to focus on.

Lara Zakaria: Well, guess what? Stick it in the bone broth, heat it up and puree it in there. You've got this delicious soup. It's an easy way to boost the amount of nutrients. Sometimes we'll do savory smoothies, particularly in the winter. We're up in the Northeast. We're based in Connecticut. In the winter, the last thing a lot of people want to do is blend up a cold smoothie. Sometimes we'll use the bone broth as a beautiful savory base and then we'll do a savory smoothie instead. Same concept, you're still getting that carrier, that vehicle for all those nutrients but rather than being cold, it's warmer. You could do it with nice warming spices and throw in a couple of vegetables as well. Maybe even a little extra protein or a little extra fat. Boom, you've got a beautiful, warm breakfast.

Wendy Myers: You're right. A blended soup is just a warm smoothie.

Lara Zakaria: Yes, exactly.

Wendy Myers: It's not soup. It's a smoothie.

Lara Zakaria: Absolutely, it just makes it a little bit interesting and changes things up. Like I said, it provides a vehicle and the vehicle itself is super nutritious. Gosh, you could add so much to it and really dial it up.

Wendy Myers: Is there anything else you want to add to the conversation about bone broth?

Lara Zakaria: Bone broth is just one of those beautiful things. We came to really focus on what it does and how healthy it is. At the end of the day, I think the thing I really appreciate the most about it is the fact that it is leaning on those traditional practices. I like to encourage my patients to make their bone broth. One, I do think it tastes better. I think you're 100% right, when you make it at home it just tastes better. I can add all the herbs, spices, root vegetables, garlic, onion and just really make it super flavorful. All those other nutrients are going to add to the benefit of it.

Lara Zakaria: I think it also creates a habit where you are taking your time to nourish your body, not just with what you put in it but the intention that you put behind creating something. Especially if you're creating this for your family and all of you are going to enjoy it. There's just something really magical about being able to put that intention behind the preparation and tap into the roots of something. I also love the idea of using the whole animal. I just love the idea that I might buy a whole chicken, I might enjoy the meat, I might use the organ meat.

Lara Zakaria: Then I might also use the leftover bones and cartilage to make a bone broth. It's truly using the entire animal and respecting the life of that animal. I think there's something really beautiful about that. The whole practice is just so grounded in tradition. That's something we could all use a little bit more of. Slowing down, going back to the roots and thinking of nourishment not just in terms of what we put in our body but also the process, the preparation and the intention that goes behind it.

Wendy Myers: Everyone, stop listening to this podcast and go make some bone broth. Go drink some or make some. Tell us a little bit about what you do, your practice and where we can find you or learn more about your work.

Lara Zakaria: Absolutely, you can find me over at drkarafitzgerald.com. Our practice is a functional medicine practice based in Connecticut. I am one of the nutritionists there, on the team. I'm also the nutrition team manager. We offer nutrition consultations remotely. Wherever you are right now, listening, whether you're in beautiful Mexico or you're up here in the Northeast with me, we're happy to chat with you. Everything is done via Zoom. I think everybody's become a Zoom

expert by now. I feel like everybody's super comfortable with Zoom. You can come see us in your PJs. We also have an awesome blog.

Lara Zakaria: Dr. Fitzgerald does an amazing podcast with tons of brilliant functional medicine experts. That is worth checking out. Then come find me on Instagram, because honestly I spend way too much time there. I could use some company. You can come find me @FoodiePharmacist. I talk a lot about this kind of stuff; traditional food, traditional eating, the benefits of nutrition and using nutrition as medicine. That's my jam.

Wendy Myers: Fantastic, I'm all about that too, ancestral eating, paleo, and going back to how we've evolved to eat over millions of years. We need bone broth for sure.

Lara Zakaria: Absolutely.

Wendy Myers: As part of that equation.

Lara Zakaria: Here here. Cheers to that.

Wendy Myers: Yes, well thanks for coming on. It was delightful to have you on and settle the score. The bone broth is safe to eat, but don't forget to go check out and download the report. It's really good. There's also specific recommendations for specific brands, which is really helpful. Go check that out at

Lara Zakaria: drkarafitzgerald.com

Wendy Myers: You can download the report there. Everyone, thanks for tuning in. I'm Wendy Myers of myersdetox.com. Thanks for tuning in to *The Myers Detox Podcast*, every week. It's my pleasure to serve you and help you make these distinctions. To help teach you about how to take care of your body and add that really important component of detoxification, which is the missing piece of the puzzle for so many people in their health mystery. Thanks for tuning in. I'll talk to you guys next week.

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