



Your Functional Medicine Expert®  
Jill Carnahan, MD ABHM, ABOLM, IFMCP

## [#40: Dr. Jill Interviews Dr. Kelly McCann about Environmental Toxicity](#)

### **Text:**

Dr. Jill 0:12

Dr. McCann, we are live. And hello [to] everybody who's joining us on Facebook. As always, this will be recorded. You can watch it if you missed the first part, and we'll be sure to share the final video.

Dr. Jill 0:26

Just a little housekeeping: I hope that you will check out the other videos we have on the YouTube channel, which is just under my name, Jill Carnahan. [There are] lots of great interviews. And stay tuned because we've got [all of the] ICI board members. This is the first of those. We're going to talk about mold toxicity and environmental toxicity, and hear from all the experts. So, I'm super excited about that.

Dr. Jill 0:46

I will just go ahead and introduce Dr. Kelly McCann, and then we'll jump right in. Dr. McCann's passion for understanding why certain people develop specific conditions drove her beyond conventional medicine to study first complementary and alternative [medicine]—I remember when that was the term back in the day—and then integrative functional medicine and environmental medicine, which led to an exploration of chronic infections and illness due to mold exposure.

Dr. Jill 1:16

Today, we're going to really dive into: How does the mind-body connect to these illnesses? I know that we both agree that it's almost like you can't really overcome and get well until you deal with all the pieces, including the limbic system and the mind-body [connection]. So I'm super excited to pick your brain on that today.

Dr. Jill 1:32

She's a practicing internal medicine doctor and pediatrician and utilizes her extensive knowledge of root causes, various modalities, and treatment options to guide patients to health in her thriving practice, The Spring Center, located in Costa Mesa, California.

She's also on staff at Hoag Memorial Hospital. She lectures all over, nationally and internationally—that's how we've gotten to know each other. I always love your lectures because you bring together the mind and body and yet [use] all these different modalities in order to help people get well.

Dr. Jill 2:05

If you're listening, you know this if you've suffered from mold-related illness, Lyme disease, or some of these chronic, complex things. And now, we're going to see it even more, I think, with COVID because some of the same inflammatory cytokine pathways are activated. So, I think functional medicine doctors are going to be very busy in the coming years.

Dr. Jill 2:26

There is so much more I could say; you are on boards and [have] so many different credentials. I won't read that all, but if people want to visit you, where is your website, Dr. McCann?

Dr. Kelly 2:37

It's [thespringcenter.com](http://thespringcenter.com).

Dr. Jill 2:39

Okay, so people can find you there. I'll be sure to add those links on our Facebook Live here. The way I love to start is with the story of how you got interested in medicine. And especially, it sounds like you were conventionally trained like I was, and then we both shifted, or maybe you went in ahead of time knowing where you wanted to be. But I'd love to hear your story about how you got into medicine and how you got to where you're at now.

Dr. Kelly 3:01

Sure. I was actually a music major in college, and I had no idea I was interested in medicine whatsoever. But, when it came time to figure out what I was going to do with my life, I thought: "I really don't want to sing opera. I just don't think that will be what I want to do with my life." So I had to figure out what the next steps were.

Dr. Kelly 3:26

I went to library school because my mom's a librarian, and at the time, the only thing that I was really interested in was how we organize information. So I thought, "Okay, I'll go to medical school." And I contemplated going to acupuncture school. My parents persuaded me to go to medical school, and I made a deal with myself that if I got in, I

would go, and if I didn't get in, I'd go to acupuncture school, and I'd be very happy. I got into like four medical schools, so darn it!—I had to go.

Dr. Kelly 4:04

So I went to medical school and was always very interested in complementary and alternative medicine, which was the term of the day. I studied with an acupuncturist; I did healing touch workshops and massage. That was really my goal from very early on—to learn about how to really help in a holistic way. So I did my residency training, and even during my residency training, I spent time with an acupuncturist. One of my continuity clinics was with some naturopaths; this was always a burning passion of mine.

Dr. Kelly 4:47

Then, after I got out of residency and moved to Oregon, and started in private practice, I got really sick—chronic fatigue, fibromyalgia, terrible depression. I had no idea what had happened to me. After that, I really tried to dive in and figure that out. It turns out that the office that I was in was a flat-roofed building in Oregon. As those of you listening could probably figure out, I got mold exposure and I didn't realize it.

Dr. Jill 5:20

And what year was that?

Dr. Kelly 5:23

This was like 2004-2005.

Dr. Jill 5:26

[That's] way before—it has really escalated. But that was really in the beginning. Wow! There wasn't as much resource out there, was there?

Dr. Kelly 5:33

No, there was nothing. I don't even know if I put it together; I just left. I had to leave Oregon, and I went to Arizona, [where I] recovered without really understanding why. I did the University of Arizona's fellowship in integrative medicine in Arizona and started training, did functional medicine, and studied environmental medicine with Walter Crinnion when he was still with us. And one of the doctors in his training program with me said, "Hey Kelly, you should really check out this Shoemaker guy and learn about mold." So I did. I checked that out and started treating people for mold exposure and treating myself for mold exposure. And then that led me to learn about Lyme disease.

And yes, here I am today, taking care of very complex patients. Obviously, now we've learned about mast cell activation.

Dr. Kelly 6:37

Somewhere along the way, I actually got a master's in spiritual psychology from a school called the University of Santa Monica. That was really a personal game changer for me because it helped me work through a lot of these misbeliefs that I had about myself and about the world, which I think has really helped me help patients understand themselves a little bit more so that they could really get to some of these root cause beliefs that are interfering with their healing. So that's my story.

Dr. Jill 7:19

First of all, I love it. It's so funny; I think we should have this secret librarian society. I just talked to Janette Hope not too long ago, and I found out she is the same as me... I always joke that I was going to be a librarian. There's such a similar path with so many of us. I applied to acupuncture school, chiropractic school, osteopathic school, and allopathic school.

Dr. Jill 7:40

I knew my heart wasn't really into allopathic medicine as much as the rest of them, same as you, and then I got accepted. I was like, "Oh, gosh. I've got to go because if I want to make changes..."—our system is still so predominantly allopathic. Or I thought, "If I want to go overseas and do mission work..." really, it's a lot harder [without it] sadly—even though I learned so much from my naturopathic and chiropractic colleagues and all these other people. And then, during residency, I did a rotation with a brilliant Chinese acupuncturist. And I looked at Dr. Weil's program, but with kids, marriage, and timing, it didn't work out. It's such a parallel journey. So I love that, I really do.

Dr. Jill 8:21

And the 'alternative' [medicine] now, I don't like that term, I'm sure [it's the same with] you too. I was in school at the same time as you, I'm sure. In fact, I was at Loyola University in Chicago, and I was the medical student who started the very first integrative complementary interest group. So we'd bring in massage therapists and chiropractors and get the medical students acclimated to these other therapies.

It seems like decades and decades ago that this all happened, but I love that. And then to have that experience, and it was so early on, no one was really talking about it. So you actually got well and happened to get out. But I bet there's a lot more clarity in hindsight looking back now that you know what it was, huh?

Dr. Kelly 9:07

Oh, absolutely. And [there are] so many things I've learned to help myself heal even more and then, obviously, help patients too.

Dr. Jill 9:19

Yes. I love that too because I think that when you sit in for a patient and you hear these little details that there's no textbook, there's no online site, nothing that really puts that together but your personal experience. I often hear things, and I remember and have experienced them, so I recognize the patterns. That experience actually adds this depth; there's no kind of training, except for experience as a depth of knowledge and understanding that is impossible to replicate with any education, right?

Dr. Kelly 9:46

Absolutely. Yes. As healers, we have to heal ourselves first; we have to go through the journey. I think that especially when we're talking about that mind-body piece, we have to do our own internal work. We have to understand our intuition, our motivations, and our belief structures so that we can actually help patients identify their triggers, their intuition, and their belief structures. I think it's a big piece of getting well.

Dr. Jill 10:18

I would love to talk more about that because I couldn't agree more. [For me, it's] the same thing as what you're saying; I went through mold illness and then a divorce. And then, my world fell apart because my identity for 20 years was as the wife of one person, and then I had to really do—I always call it 'the awakening.' And it's me because my ex-husband and I are on good terms, and we both are like, "That's the best thing that ever happened to us." We were in this illusion of sameness, and it broke it apart, and then it forced us both to look at ourselves at a very deep level. And what happens is we think we've overcome, learned, and grown, [but] there's more. So I continue on this process.

Dr. Jill 10:56

I am on the process with you, listening, and with you, Kelly. But it's interesting because what I realized is how many false perceptions and beliefs [I had] and how it affected my health probably more than anything else. So let's talk about this. You've got a spiritual psychology degree. Take us down the path. [For] patients who are listening or people [who are] struggling, what are some of the things you explore with your patients, and how would we make changes around those belief systems that are keeping us from healing?

Dr. Kelly 11:25

Yes. It's definitely a tricky situation because, especially as an allopathic medical doctor, even a functional medicine doctor, people are coming and they're like, "Okay, fix me." We have to change that mentality right from the get-go because I can't fix somebody; you can't fix them. They actually have to do the work. We can be the cheerleaders, and we can give the supplements, but ultimately it is their process and their journey. So some of what I do is help teach them how to access their own intuition.

Dr. Kelly 12:10

Perhaps we can talk about how to start to get at what the root beliefs are and what the root causes are. For example, one of the key points that we learned at the University of Santa Monica is this idea of victim mentality and [how] to identify the issue when you hear yourself say, "I'm upset because..." [For example], "I'm upset because that guy over there is smoking, and smoking is bad, and it gives me a headache. It's bad for the world. How rude are they, and how thoughtless are they to actually smoke?!"

Dr. Kelly 12:52

The idea that's really hard to wrap your head around is that "I'm actually not upset about the smoking or the person; I have some internal issue that is being triggered by the presence of that guy smoking." I'm not a smoker, so it's not that I'm doing that, but there are ways in the world that I might be rude or I might be thoughtless, and that's the opportunity to look outside of myself [and say]: "Why is that making me angry?" And "Can I look inside of myself and see what's actually there, what's being triggered by that seemingly external event?"

Dr. Jill 13:44

I love this because you're talking about these exiled pieces of ourselves. Also, I'm hearing this like it's a judgment, which I'm learning is so easy for us to have judgments and probably first of all to ourselves: "I'm bad" or "I shouldn't have done that." The shoulds and the musts. I always think of those trigger words: "I should be doing this" or "I must be doing this." That's probably a judgment and not from a really intuitive place if I want to show up in the world this way.

Dr. Jill 14:13

The other thing I heard—again, I've been working through some of these myself—are these exiled parts. I think of myself: I want to be a kind and loving person. I want to be generous. I say "I want to be" because I know the truth is I am both unkind and kind, generous and stingy, and hopefully I am more on the good side than not. But if I exile that part of myself and I see that quality in someone else, it's really easy to become

self-righteous and judge that. But the truth is that we all have those parts, and usually we're triggered by the parts that we most exile of our nature. So if we can start to embrace...

Dr. Jill 14:47

I'll tell you [about my] personal journey with a not-healthy relationship. What I learned was that he was always triggering me by accusing me of things that I thought were not in my nature, so I would start to defend myself. And this is classic manipulative behavior. So I get in the cycle of trying to defend myself because "No, I really meant to be good" or "to do this." I started to understand: I can be imperfect and still be whole and lovable, and I don't have to defend myself. When I started to embrace this like: "Oh, wait. I don't have to defend myself," it gave me so much freedom, and that's how I got out of that manipulation.

Dr. Jill 15:25

I'd love a comment on some of those things, especially [concerning] exile, because it sounds like with the smoker you're talking about these pieces of ourselves that we push away and then we're triggered by them, right?

Dr. Kelly 15:35

Exactly. It's the thing that causes an emotional charge. I think, for a lot of people, it's: "How do I identify this? You're talking about these things. How do I identify it?" It's the emotional charge that is the gateway in. So what is it that you get upset about, or that I get upset about? Or for our listeners, what is it that really, really makes us upset? That's where we can get an avenue in to start looking at that.

Dr. Jill 16:12

I love what you're talking about: It's not pointing fingers at "My mom did this," "My sister did this" or "My husband did this". The only thing we have to change is ourselves, and that gives us more power, because it's very easy to point fingers.

Dr. Jill 16:26

How would this look if a patient's coming to you who might be stuck? I'll give you a scenario, and then I'd love to hear what your thoughts are: Chronic Lyme, chronic mold, some of these illnesses, and chronic fatigue—they're chronic, they're suffering, and they've been through a lot. They've been to many doctors but somehow they start to maybe identify with that illness. How do you start to coach them [on] how to get out of that cycle of feeling like they're always going to be sick or that they don't have any

control over their environment or their situation? What would be some of the ways that you'd start to navigate that with your patients?

Dr. Kelly 17:01

Good questions. They're tricky; these are really tricky things. I think some of it has to do with trying to get them to come to an understanding about: What are the core beliefs that they hold? For example, do they feel that it's unsafe for them to heal—for whatever reason. Are they unwilling to heal, really, at the core? Is there something that is unwilling about them to do the work, whatever that is, because they're tired or what have you? Or perhaps they might have the idea that they don't really deserve to heal, that they're not good enough, or that they're not worthy of their own time and attention to get better.

Dr. Kelly 17:56

Other possibilities: Maybe they don't believe that they have the ability to heal or that it's actually possible to heal. Many, many patients feel, "Oh, it's just impossible. I am never going to get there," and until we identify that that is a core belief that they're holding on to, we're really not going to be able to shift it. So a lot of this does require some intention to uncover: What are the beliefs that they might have?

Dr. Jill 18:28

Those are so powerful because I think a lot of them, and even safety, there are always the actions that do give us some outcome, so we keep doing them even if they're not good for us. So we uncover what we're getting out of that action.

Dr. Jill 18:42

As I hear you, I can think back to [a time] when I felt like I wasn't able to express my needs easily. I had to be compliant, so it was hard to say, 'I need this,' and I think that there were times when the illness was an excuse to rest or to say 'no.' I could see that being a cycle for some people. Not that they are even conscious of it maybe, but illness had become a pattern that gave them relief from having to express "I need to rest," "I need to go away," or "I need to have time alone". So if they were just not feeling well or had a headache, it would give them that. And that's just one small example.

Dr. Jill 19:20

First of all, do you actually counsel patients in [your] practice, or do you send them to professionals? Would there be an exercise or something that you would recommend for patients to look through?



Dr. Kelly 19:29

Yes, [those are] good questions. Given the complexity of all the other things that we do as functional medicine practitioners and the time constraints, if somebody is really interested in doing this sort of personal work, I do recommend that they have a therapist or a counselor. Or if they decide to do limbic system retraining, [I recommend that they] at least have a coach who can help them work through some of these issues. Again, because of the nature of the practice, it's not always something that I'm bringing up or bringing to light. Of course, I think this conversation will spur me to want to try doing it more because obviously, it's very valuable.

Dr. Jill 20:19

Me too, but the time and the clinic—it is really like Pandora's box, so if you start to open this, you can really go down a pathway.

Dr. Kelly 20:29

But there are some exercises that people can do. One of my favorites is an exercise that we did at the University of Santa Monica called Gestalt, where you would have a conversation with the part of yourself that is upset or hurt. So you could have a conversation with your headache if you have headaches, or you could have a conversation with your upset about whatever. That can manifest in a variety of different ways.

Dr. Kelly 21:06

How we did it at the University of Santa Monica is that we would set up three chairs. One chair was the counselor, one chair was the client, and the third chair was a neutral observer who was holding space. You don't have a neutral observer if you want to do this in the privacy of your own home. Set up two chairs and designate one chair as you, and then the other chair as your other aspect. Get up, sit in the other chair, and literally have a conversation going back and forth with the intention of really understanding that aspect of yourself, what its motivations are, and what it's trying to tell you.

Dr. Kelly 21:53

For example, Louise Hay—

Dr. Jill 21:59

I was just thinking about her!

Dr. Kelly 22:03

Yes. Louise Hay has been writing for decades, and she's got these little snippets of information. For example, a headache could mean a metaphor for invalidating yourself or self-criticism. So if that person has a headache and they [do a] Gestalt with their headache and they find out, "Yes, actually, I am very critical" or "I'm very angry," and they're not allowing themselves to express that anger in a healthy way and it's being bottled up in their head, figuring out what that anger is all about, giving voice to it, and going to therapy about it might really clear the energy so that that headache doesn't have to be there anymore.

Dr. Jill 22:48

I love this. Gabor Maté, Peter Levine—some of the trauma work they talk a lot about [is great]. I love Louise Hay. Actually, she has a little cheat sheet, which is really fun to look up when I have a symptom. You know, [it's like], "Is there something deeper here, emotionally?" Like pain [in the] shoulders, it can be like feeling the weight of the world. There's a lot of stress or pressure. So all of you dealing with COVID and homeschooling, if you're having neck pain or shoulder pain, it might be just because you're feeling the weight of the world.

Dr. Jill 23:18

I love that we're talking about this because it doesn't minimize the real chemical exposures and toxicity that people are dealing with or the real physiological manifestations. We're both definitely not saying, "This is all in your head." But I love that we're going bigger because, again, sometimes you get stuck in the healing. Just a pill or a supplement isn't going to really go to that place. So if you're open to healing and you really want to heal, you can look a little bit deeper and start to ask these questions.

Dr. Jill 23:45

I found the same thing you mentioned with talking, whether you're actually sitting in chairs [or doing something else]. Journaling—you can actually journal to a symptom, or you could journal to your younger self, or you could have these conversations in journal form. Sometimes [through] writing, you can get out stuff that you wouldn't necessarily be thinking of consciously. This reminds me: You started out by saying [something about] this intuitive sense of ourselves. Let's talk a little bit about that because I think that's important.

Dr. Jill 24:12

If I have to talk about my journey, what's funny is that I went to an allopathic medical school. I was born this very, very intuitive, creative child. I was [raised] in a very fundamental black-and-white engineering family. [I have] amazing brothers and sisters, but [they are] very, very black and white—kind of judgmental. So I realized that [being]

that creative, wild child was not really acceptable in that situation, so I pushed it aside, suppressed that part of myself, and became very analytical. I went into engineering before medical school, and that actually helped with medicine. I look at problem-solving as an engineering, analytical proposition.

Dr. Jill 24:51

All that to say, in the last decade, I've found that I've rediscovered this intuitive side of myself, and it is thousands of times more powerful than the scientific, rational mind. So when we take a scientific [approach to] it, I always think of it as hundreds of pieces of variables that we can put together on paper and analyze. But now that I'm living on the intuitive side and bringing that together, I can take millions of pieces of data in an instant, in a second, and the subconscious can actually analyze them and give me answers that are really spot-on, and then I prove it with science. But I'd love to hear your perspective on: How do you use that in practice? And then, how do we talk to our patients about engaging in that creative, intuitive side for answers?

Dr. Kelly 25:32

Okay, so got my woo-hoo hat on.

Dr. Jill 25:37

I love it! I know we're going there.

Dr. Kelly 25:40

Okay. I know a lot of our colleagues use muscle testing, and muscle testing definitely gets poo-pooed by conventional medicine. I don't tend to use muscle testing for diagnoses but I teach my patients muscle testing. You know, when you've got six supplements that are good for inflammation, how do you pick? Well, do you pick the pretty label? Do you pick it because it's cheap? What's the intuition, or what's the reasoning? For me, it's helpful to have that intuitive sense, and I think I tap into that on a regular basis. Some people might experience their intuition as they're hearing it or as they're feeling it in their bodies. They get a sense in their gut that this is something they're drawn to.

Dr. Kelly 26:40

I literally teach the sway test with supplements and teach them how to do that, and if they're open to it, I think it can be really powerful. I remember one time I was playing around with it very early on, trying to [learn] about different foods. For those of you who don't know this, the sway test is when you're standing and you might hold a supplement. Let's see, I have a very old bottle of BodyBio PC, my favorite. I might hold

the bottle at my solar plexus and put my hand on my heart. I'm sitting down, but I would ask my body, "Is this good for me?" And then if I swayed forward, I'm attracted to it; it is something that's going to be good for me because I'm attracted to it. If I move backward, then my body is repulsed by that and is trying to get away from it, it won't necessarily be good for me. And then, if I sway [from] side to side, it might be helpful, it's not going to hurt, [but] it's probably not the best choice.

Dr. Kelly 27:56

Of course, I also realized that I have to verify that forward is 'yes' and backward is 'no' before we go ahead and do the muscle testing. Just simply, I tend to put my hand in my heart and my solar plexus—maybe the other way around; I don't remember—and then ask what is yes for me today. And if 'yes' is forward, I'm good to go. If 'yes' is backward, then I probably have to do some walking in place or tapping or something like that that's going to help reset me, and then I'll do the muscle testing again. What I was going to tell you was that I kept muscle-testing potato chips, and I kept falling to the side. They're not really good for me, but [they're] not terrible for me.

Dr. Jill 28:48

It's kind of good. I love that you say that, Kelly, because I'm the same way. I'm so careful because we have this conventional system we're trained in. You and I still use great science; I feel we bring the best of both worlds. Sadly, years and years ago, with the term 'alternative,' at least for me, there was a lot of judgment against what I did. I remember in the very beginning, [when] I was in a medical center, I started the integrative program there, and all these rheumatologists and GIs were like, "Who is this person who's doing this? They are totally quack!" And what would happen is the patient would get better, then they'd go back to their specialists, and they'd be like, "What did you do? You're off all your meds!" And they're like, "Well, I saw Dr. Jill." And they're like, "What is she doing over there?" So then you start to get credibility, and now we both have—in our fields, we're respected—credibility. And there are still people who think we don't know what we're doing.

Dr. Jill 29:39

But all that is to say that for my whole career in medicine, I've tried to walk this line so carefully of really using great science because I want to bring the best science to our field and further it. Again, ICI—we're both involved in [it]. I love that about our organization, and [I love] that we can really bring great science. But the truth is in order to really help to heal, we have to deal with the mind-body [connection]. We have to deal with the 'woo-woo,' which is a funny term for it but is considered non-scientific. If you look at it, some of the best science is in these fields, so this is not without its science.

Dr. Jill 30:14

But I'm actually so grateful that you brought that up because I'm just like you. When it's my health, I'm testing my supplements, so I might not do it in the clinic with the patients, but I'm doing it for myself, and I find it to be incredibly helpful when you have this large array. And it might be on Monday, Tuesday, or Wednesday that your body desires this. And I've gotten [to the point] that when I'm just putting my supplements together out of the cabinet, I just know what to put; it's like a recipe. I'm cooking, and I'm like, "This week I need this," and the next week, "I don't need so much of this." Intuitively, I'm now really good at that. But if we can give that, that empowers our patients because then they don't have to call us with every question. So actually, I really appreciate you bringing that up because I'm 110% in your court, and [it's the] same thing [for me].

Dr. Jill 30:56

Now let's see; we talked about intuition with patients, so that's one way to teach them to tap in. Something else that you mentioned was talking to the headache and trying to see: Is there something else deeper here?

I just want to mention that in my research—I had breast cancer at 25 and then Crohn's at 26—as I read some of Gabor Maté's and Levine's work on trauma, there's a lot of data that connects breast cancer in women with this overly nurturing and conscientious personality that puts aside their own needs. And I alluded to that earlier, [saying] that I always had a hard time expressing needs but that I'd much rather take care of someone else than ask for something for myself. But part of the breast cancer profile can be along the lines of this nurturing because it's the breast, and it's a nurturing organ for women, especially, of course, to be over-nurturing and to actually deny their own needs.

Dr. Jill 31:48

So I'd love to ask if you've seen that. And then, I want to mention autoimmunity along those lines because that's super common now. Autoimmunity is basically your body attacking itself, and often there's a hidden self-loathing, self-anger, or something directed toward yourself that needs to heal. I would love to know if you've seen some of those patterns with illness, especially with breast cancer and autoimmunity.

Dr. Kelly 32:11

Absolutely. I see all of that. In addition to Louise Hay's [writings], there are a couple of—I don't know what to call them—formats of thinking about this. For example, in acupuncture and traditional Chinese medicine, meridians and the organs in acupuncture have specific meanings. And depending upon what the person has or what the patient is presenting with, you may be able to clue into these systems to give more information.

Dr. Kelly 32:55

So let's say the patient is an irritable, angry person who has insomnia and wakes up at 2:00 in the morning every night. Well, we know from traditional Chinese medicine—the clock of the organs—2:00 in the morning is right smack dab in the middle of liver time. And the liver is often represented as anger in the realm of that modality. The liver meridian is the chief planner, and it provides us with purpose and direction. When we are physically imbalanced in our liver, we get headaches, we have a red face—I'm actually really warm right now, so my face is really red—red eyes, and painful joints.

Dr. Kelly 33:48

If someone were able to identify, "Okay, yes, I'm really angry," and then trace that energy of anger back to the first instance in their life that they felt that, then they might be able to really start to clear those patterns. "What are they so angry about?" Headaches are actually, in my mind, a really good metaphor for anger that's trapped in the body.

Dr. Kelly 34:18

As I was preparing for this, [another] one that I was thinking about was the chakra system. So we've got the acupuncture system, and then there's the chakra system. The thyroid is the fifth chakra, and when we don't express ourselves, when we don't speak our truth, we can have a block in the thyroid in the fifth chakra, which can manifest in thyroid issues. So I think that these are metaphors that are rampant if we look for them, and [they] give us a clue to where we can start to intervene.

Dr. Kelly 35:06

I remember I was in residency and I was at the VA at the time in Phoenix, and one of my patients was a very sweet 65-year-old man who had just had a heart attack. As I was taking his history and talking to him about his family history, there was so much emotional stagnation in his relationship with his mother that he never married; he never really expressed himself. In that moment, I just saw the emotional clogging of his coronary arteries that was manifesting now in his cardiac issues. It's so profound.

Dr. Jill 35:57

Oh my gosh, I love that! Again, as you well know, [issues with the] lungs are [due to] grief, a lot of times. I remember that right after the divorce, I wasn't conscious of my grief. I was like, "Oh, I'm fine"; I was very repressed. I remember getting pneumonia; I had lung issues. I had all these lung issues, and I was like, "Oh duh, that's my body trying to express this thing that needs to come out," and it's so interesting. My lungs are good now. It's that you transition; you get those emotions out. Yes, repressed

emotion is a huge, huge piece of the puzzle with illness as well. So I love that we're talking about this.

Dr. Jill 36:33

So let's maybe shift in the last few minutes. We both deal a lot with environmental toxicity and mold-related illness. I just see this epidemic, and I think that, partially because of the toxic load in our environment, it is making it harder in general for our immune system to cope. Buildings are getting tighter. There's more cardboard and porous materials, and the new builds are built quickly. There are just so many reasons for this.

Dr. Jill 37:01

A lot of people are like, "Well, my grandma used to have mildew in her shower and never got sick." Why is it such a big deal now? I think all of these things plus EMFs make the mold a little bit more aggressive. Even for me, I'm like, "Why?" And even in the last five years, there's [been] so much more mold, and it's so much more aggressive, and we're seeing neurological illnesses [like] Parkinson's [and] Alzheimer's. It's amazing to me how toxic and prevalent it is.

Dr. Jill 37:28

I remember even when I first realized mold was at the root of a lot of illnesses, I kept seeing patients, and my heart was like, "I think mold might be involved," but I was like, "Not everything could be mold," and yet it kept coming up, proving itself in the labs.

Dr. Jill 37:41

So back to the question. What I wanted to talk about—we talk in ICI about limbic retraining and these ideas [about it]. Let's talk a little bit about that. I actually put together a whole [list of] limbic suggestions. And I'd love to pick your brain, and I'll share some of mine. So let's define that first. What does that mean, and then how do we help the patients get out of that limbic loop?

Dr. Kelly 38:03

Sure. So the limbic system, [which] I describe as the ancient part of the brain, [is] the part of the brain that is the emotional center. I'm sure you'd come up with better ways to describe it. But when patients are stuck in fight or flight, when they start to perceive that the world [and] everything around them is dangerous, they get stuck in limbic system activation, and they have difficulty existing in the world because their limbic system is literally getting hypertrophied. We also often see this in combination with

mast cell activation, where their mast cells are degranulating and they've got lots of inflammation.

Dr. Kelly 38:54

My understanding is that if we calm down the limbic activation, if we help get them out of fight-or-flight and into parasympathetic, which is the relaxed state, they will be better able to exist in the world, better able to detoxify, better able to digest their food, to breathe deeply, and do all of those things. I probably missed something there, but...

Dr. Kelly 39:23

There are two different limbic system retraining programs that I'm aware of right now. Annie Hopper's DNRS [is one of them]. Annie Hopper spoke to us at ICI in our inaugural conference. And then, Gupta [is the second]—the Gupta program. He spoke to the ICI participants at our most recent conference. Both of those programs require an incredible amount of discipline on the part of the patient who is participating and really trying to rewire their brain so that they see the world as a safe place.

Dr. Jill 40:05

Thank you for saying that because what we've both seen is either one of those programs can make profound shifts when we get stuck. It's not that I'm requiring them, but I highly, highly recommend that any patient with mold or Lyme or [another] chronic illness... We've both seen this, and now we're starting to really put it all together as a group and organization and teach our doctors that this is part of the healing. But what happens is that mold is this physiological stressor that, for some reason, happens to be particularly threatening to the system. The system knows it's very, very dangerous. If we're like, "Oh, I'm going to be okay; I'm going to get out of the moldy house, and I'm going to heal," even if we're consciously aware of that, if we get re-exposed, the same trigger happens in our limbic system—even if we are consciously aware and awake. So we actually have to go to that subconscious level and start to create a safe space for healing, and that's part of this.

Dr. Jill 41:01

Like I said, I put together this random list that I pulled from different sources because for me, as a type A, another program or another book to read in the midst of the illness was a lot to add. I could do it, but I found some patients are just so overwhelmed that they might start [and not finish]. So what I try to do is [both] passive and active. The active things are the books to read and the programs to do, and they're amazing.

Dr. Jill 41:26



Some of the other books that I've heard recommended are: Accessing the Healing Power of the Vagus Nerve by Stanley Rosenberg—I know Neil Nathan loves that book, and he was the one who first turned me on to it—then I read The Brain That Changes Itself by Norman Doidge. And then Stephen Porges, who's been a big trauma psychologist and has done tons of work in this area, has a protocol just called the 'Safe and Sound Protocol.' I can include some of these links in our notes. I'm not associated with any of them. I've just found that they help patients.

Dr. Jill 41:55

But then the passive stuff, heart math, or any sort of issue with heart rate variability, which is our beat-to-beat variability, can be really profound. You can get those [through] apps on your phone or computer. HeartMath is the best known, but there are a lot of other ones out there. Even cranial-sacral therapy—I'm a huge fan of that for this activation because you passively get treatment; it's very subtle, it's very gentle, and it can help shift that.

Dr. Jill 42:24

And then [there are] binaural beats. If you've never heard of these, they are all different types of music. It's usually classical, or there might be some drone types of gamma or alpha hertz, but what they are are slightly different frequencies in the ears. Again, I don't know all the science, but I know enough to know that it tends to calm the nervous system down just by listening. So if someone's really upregulated and can't read a book, you can go do the binaural beats. You can find them on Spotify or Pandora—you just search and listen for free.

Dr. Jill 42:57

And then, I know some of the other neural feedback—frequency-specific microcurrent—and just breath work [can be beneficial], which you started by saying that breath [work] is such a powerful way to learn. Buteyko breathing [is one example], but there are many others. You can do a box breath where you're breathing in for five, hold for five, out for five, and just do that box work. Anything else that you can think of, or anything with breathing? You're probably an expert on this. I certainly am not. Any breath work that you would teach your patients on that level?

Dr. Kelly 43:31

Dr. Andrew Weil always taught the 4-7-8 breath, which is a little bit different than the box breath. You inhale to the count of four, exhale to the count of four, inhale to the count of seven, exhale to the count of seven, inhale to the count of eight, and exhale to the count of eight. And then you do that like 10 times, and it definitely quiets the—

Dr. Jill 43:54

You're kind of slowing down the systems, right? [Dr. Kelly nods] Okay, that makes sense.

Dr. Kelly 43:58

You have to slow down the breath so you can get [inaudible]. Another passive device that I learned about through a patient of mine is actually the Rezzimax Tuner Pro. It has a couple of different settings, but it's considered a vagus nerve stimulation device, so it calms down the nervous system. My husband uses it periodically. He'll put it on his back, and he's out for a half hour—he just falls asleep. So that's a lovely, lovely thing too. Gosh, I had another one, and I lost it. Oh well.

Dr. Jill 44:30

All of these devices—[I feel] the same [about them]. Everybody's heard me talk lately about my PEMF mat—the pulse electromagnetic frequency. Now, these have been around for years. There's tons of data. It's just that I got a new one, and I've been really excited because it's changed my life. In fact, at the conference, there's a little pause, and you and I are pulling out our bio-hacking devices and showing them because I know we both like to find things that work.

Dr. Jill 45:05

That pulsed electromagnetic frequency can be really powerful. There are different hertz [settings you can choose] to lay on a mat. Some are for earthing or grounding, like walking on the earth's surface, so [that setting is] more relaxing. Some are more for healing modalities; [others are] for the brain and nervous system; [and yet others are] for bone or muscle injuries. It can be really amazing. I don't have the data all read yet, but I keep being amazed at all these different things that we can do for our systems.

Dr. Jill 45:36

Well, gosh, the time has just flown, Kelly. I enjoyed this interview. I love going to that metaphorical esoteric woo-woo spot because, honestly, it's some of the [most] profound healing for our patients and even myself. So I love that we're talking about it and bringing it credence.

Dr. Jill 45:54

We're in the midst of a pandemic at the moment we're recording this, and people are anxious, and I think one of the things we're seeing is that the things that were safe and secure—finances, health, relationships, intimacy, connection—a lot of the things that we relied upon for security are in flux. Of course, you're seeing patients and feeling this

energy too because you're intuitive like I am. What would be any parting advice for people just trying to learn through this, stay afloat, or deal with isolation? Any tips or things that you want to leave us with regarding what we're all dealing with right now?

Dr. Kelly 46:39

Actually, I think in many ways we can look at this time, as challenging as it is, as an opportunity. I think it's a missed opportunity for the powers that be to not say: "Hey, let's help people get well." "Let's help people get healthy." "Let's help people lose weight." So, since nobody else in the government is going to tell us to do that, we can take it upon ourselves to really use this time to dive in, explore our thoughts, our feelings, and our health, and figure out ways that we can use this time for a greater purpose.

Dr. Kelly 47:35

I know a lot of people are anxious, and yet anxiety is technically not a feeling; it's really a suppression of emotion that causes those feelings that we call anxiety to show up. We're using that upset, we're using that trigger, and we're using that charge as an opportunity to self-investigate, to look inside of ourselves and figure out: "What is it that I'm really upset about? What is it that I'm really suppressing?" Maybe we can use this time to truly heal or to begin to heal. And hopefully, those of you out there can find functional medicine practitioners to work with so that you can have greater empowerment and take charge of your own health.

Dr. Jill 48:33

Oh, I love, love, love that. Personally, for me, I've been in some ways busier than ever, but in other ways, there's been some quiet and lots of introspection. So if you're out there and having this time or whatever, I encourage you: Get a journal. I've got coloring books that help me tap into the right side of my brain.

Dr. Jill 48:53

Whatever it is for you [that helps, continue to do it]; maybe it's walking with your dogs or your child or being outside in nature, getting on a PEMF mat or one of these devices. I encourage you if you're listening, there is a purpose in all the suffering and difficulties, and a lot of this is slowing us down so that we can actually access these things again. For me, I was going at high speed, traveling all the time, and this was an opportunity for me to step back and actually reevaluate: Where am I going? Where do I want to go? What do I want my relationships to be like? What do I want my office and clinic to be like? So it's been a great opportunity for introspection, so I love that, Kelly. From two librarians who became physicians to all of you, I just [want to] thank you for your time. This has been such a great discussion.

Dr. Kelly 49:41

Yes, thank you so much for the invitation, Jill, and for the opportunity to spend time with you. This has been wonderful.

Dr. Jill 49:47

You are welcome. We'll have to do it again.

Dr. Kelly 49:48

[That] sounds good. [I'd] love to.