



Battling Illness and Finding Hope With Dr. Jill Carnahan

JC

Dr. Jill Carnahan

0:00

So let's talk about first what would it present like. So, if you have onset of cognition issues, like you have trouble remembering words, word-finding, remembering words, saying the right words is a real common thing. So you literally want to say, "cat," and you say, "dog." Or you can't think of the word, that's very specific to mold. Though there's other things that cause that as well. So any cognition difficulties, and probably the number one thing is the brain fog kinds of stuff. Fatigue is huge, because mold is a toxin for the mitochondria, so it often makes you more tired. For me I now feel like there's personalities of mold. For me in particular, like Chaetomium, I call it the narcoleptic mold, because when I get exposed to Chaetomium, I lay down for a nap, like immediately. And now I look back, I know I could tell you the whole pathway. I won't bore you, but it's a biochemical pathway that makes my blood pressure drop. And so I'm super hypotensive which makes me very tired and I lay down and feel better because I'm horizontal. So, and that's Chaetomium.

KS

Kendra Seymour

0:56

Hello, and welcome to Your Indoor Air Podcast brought to you by Change the Air Foundation. My name is Kendra Seymour and I'm joined today by Dr. Jill Carnahan. Now, if you don't know Dr. Jill yet, you will come to adore her. When I first started following her years ago, it was not just her extensive knowledge that impressed me, but it was her sincerity and her empathy and the hope that she offered to those who are dealing with complex medical conditions. And as you will come to hear, I think it's because she has been a patient herself. She's walked in your shoes so I can promise you, you are in for a treat today. So thank you, Dr. Jill, so much for being here.

JC

Dr. Jill Carnahan

1:31

Thank you, Kendra. I love the work you're doing I could not be more excited, and I am the biggest advocate for Change the Air Foundation because it's so what we need.

KS

Kendra Seymour

1:39

No, thank you and you have been a supporter from the beginning and we so appreciate that. But I know we have so much to talk about and I want to make sure we have enough time, but I want to give people a little bit more background on you. You are, you know, the functional medicine expert. Dr. Jill is dually board certified and is the founder and medical director of Flat Iron Functional Medicine. As a survivor of breast cancer, Crohn's disease, and toxic mold illness, she brings a unique perspective to treating patients. She specializes in searching for underlying causes of illness through cutting-edge lab testing and personalized medicine protocols. Released in 2023, Dr. Jill's best-selling book, *Unexpected: Finding Resilience Through Functional Medicine, Science and Faith* is a powerful perspective memoir that will have you laughing and crying with her on the journey. Leaving you with the keys and resources you need to achieve optimal health and wellness. She is the executive producer, film writer, and featured in a new documentary about her journey overcoming illness called *Doctor/Patient*. And as a popular inspirational speaker and prolific writer, she shares her knowledge of hope, health, and healing live on stage and through newsletters and articles, books, and social media. Patients and fans alike are encouraged by Dr. Jill's science-backed medical knowledge delivered with authenticity and love and humor. And she is known for inspiring her audience to thrive even in the midst of difficulties. 100% agree with all of that, because it's so important as somebody whose family was impacted. And it was such a long journey. You feel like there's this tunnel and there's no light, you know, at the end of it. And you offer so much hope and you know, compassion to the people that you help and then to those who aren't even your patients. So I just want to take another moment to say thank you for that and let you know that you have personally touched, like, my family and our healing journey.

JC

Dr. Jill Carnahan

3:41

Oh, thank you. That means like I said, it means so much because like, you know, we're on these screens nowadays or on social media. You don't really know who you're impacting. But there's no greater desire in my heart than if I could inspire, impact even one life. So whenever I hear that it is like joy in my soul, because that's my mission.

KS

Kendra Seymour

3:57

Yeah. I... let... We kind of have that shared passion. So let's jump in. Because, you know, I think one of the reasons why I, and so many others, were drawn to you was because it's this message of healing and hope; even against what I think is sometimes, like, feels like insurmountable odds. And it was actually through your own journey with breast cancer and Crohn's and mold toxicity that I think really led you, you said, to create the kind of practice that you wanted as a patient. So I know you go into detail in your new book and your documentary, both of which are wonderful. But talk to us a little bit about your own personal health journey and how it kind of helped you to change the way you practice medicine.

JC

Dr. Jill Carnahan

4:36

Yeah, so I grew up on a farm in Central Illinois, one of five kids. And just a really idyllic, you know, wonderful location, wonderful family, surrounded by loved ones. We had a half-acre garden so I knew early on the power of soils and organic produce and all of that. And unbeknownst to me, that life on the farm, the chemicals that were traditionally used in Central Illinois farming practices, and still today are in many places. Although My family has actually graduated to all non-GMO and less toxic farming methods. All that to say that was slowly killing me, and I had no idea. So at 25, I'm in the middle of medical school, I found a lump in my breast. And at that time, 25-year-olds don't get breast cancer. Well, even since then, sadly, there's more and more really young people who have gotten it, but it was a shock. And the diagnosis was... You know, I get a call from the oncologist, a surgeon. And these are my mentors that are like, my teachers it's not just, like, some doctor who I just met. They're like, in my classrooms teaching me. So she was very personally involved. And I'll never forget, you know, when we get that kind of news, where we find out, there's mold in our house, whatever... Often we're like, or someone we love dies, the place where we're at, we get those phone calls, we will never forget the color of the walls, the place. Like, it is etched in our memory. And even to this day, 20 plus years ago, I remember the chair, I was sitting in, the song on the radio, everything about that moment when I got the call. And she said, "Jill, I don't know how to tell you this, but you have aggressive breast cancer. You're in for the battle of your life." And you know, my heart just stopped. And there's this kind of disbelief when you get these kinds of news. You're like, "Is this real?" And then you wake up the next day and say, "Is it a dream?" And it's not. The same thing, if someone you love dies, or these kinds of things happen, and they happen to all of us. I'm not unique. But I'll never forget that and grappling with this new diagnosis. And now I'm healthy. It's 20-plus years later, but at that moment, I didn't know if I had six weeks or six months or six years to live. And I, you know, went at it... I literally at the very beginning thought, "Oh, I can just keep going to med school. No one will know." Right? Well, of course, the first round of chemo knocked me out and I had to take a leave of absence, I was so sick. And in that battle of even making decisions, I have such compassion with patients, especially chronic complex illness, mold-related illness, because it's so overwhelming. I remember that was my first lesson as a healer, was I had all this data coming at me. And no one knew for sure how to treat a 25-year-old with aggressive breast cancer. Because even at that Medical Center in Chicago, I was the youngest they had ever seen. Now since then, sadly, there's been more people, but it was such an anomaly. And in that decision-making, I was scouring the literature and I had a medical degree. And it still was so overwhelming to make decisions, that I have such compassion. I remember a couple of lessons there that have really served me well with patients. Number one was when you're in the midst of those things, whether it's mold-related illness, chronic complex illness, autoimmunity...you take the information you have, you have to go analytically read it and analyze it. And then you have to go to a heart space. And you have to say, "What decision moving forward? What..." Whether it's move, leave my belongings, remediate the house, whatever thing you're facing, or cancer treatments.

And you take that information, and you have to make the best decision and never look back. Because if you would make a decision, and then five years later, you're like, "Oh, what if I would have?" That can eat you up. And I learned right away, I have all this data, I have to make a decision. And what happened was I chose very aggressive three-drug chemotherapy, six rounds, I almost died from the chemo. And the calculated doses were the doses that were calculated to be the maximum amount my heart could withstand before stopping beating. So like I was maxed out on chemo, and all of that chemo affected my gut and my life. Lifelong, I still have an immune deficiency that was probably related to that. But I have never once looked back and said, "What if I didn't do that treatment?" Because it saved my life, it caused some collateral damage. But that piece of knowing in real-time – when you make a decision and move forward – was a powerful lesson. And I love talking to patients that are facing complex decision-making, because I want to encourage them. Take your time, number one. Don't be forced by anyone to make a decision before you're ready. Number two, get the analytical data and read and study and then go to your heart space. And think about what feels expansive, what feels like not fear-based what feels like the right decision, and what would give me the most peace? Because that's where your body and heart and mind will actually guide you. And you'll make a decision that you don't have any regrets about. And again, even though I've had massive damage from the chemo, it saved my life. And there's not one second that I've ever second-guessed that. And then the second lesson was, there is massive amount of information. And at that time, 20 years ago, it was overwhelming. And now it's exponentially increasing the amount of data we have coming at us in influencers, and people, and we don't even know what to believe. And so the second lesson was, "Do what you need to do. Do the research, but don't let yourself get in overwhelm because overwhelm is paralysis. And if you're in over... and especially with mold, right? And that will cause you to not do anything at all, which is probably the worst thing you could do. So it's better to do something. And if you don't know, take a tiny step forward, and then trust that the resources then the confirmation will come. Because if you take a step forward towards a direction, you'll either get confirmation with people coming to help you or confirmation in that decision because you feel better. And if you don't, you might get a redirection, but those kinds of things are so powerful for guidance in how to navigate these very, very difficult and complex decisions."

KS

Kendra Seymour

9:55

That is... There's so many great things that you said there. And I couldn't and agree more because one of the things that people get is that analysis paralysis that you talked about. And so they make no choice. And that in and of itself is a choice, right? Because they don't want to make the wrong choice. And you have to, at least in my experience, like you have to make the best decision possible; given your circumstances, given the resources and materials that you have and move on. And I love that you said something, because I was very bad at this is... You said, basically make the decision and move on. And to carry guilt, "Oh, I should have..." I was horrible at that. And I've had to learn to give myself grace.

JC

Dr. Jill Carnahan

10:36

Yes.

KS

Kendra Seymour

10:37

That word was like, lost to me for a long time. And you know, I... Especially because it was my children that were impacted. And as a mother, it's my job to protect them. Sorry, I got a little emotional.

JC

Dr. Jill Carnahan

10:48

No, I totally get it. Because that's a heavy, heavy thing to think about. "Oh, my poor precious babies."

KS

Kendra Seymour

10:54

Right, right. Like, you can do something to me, that's me. But like my babies, oh, my goodness. And so that is such an important message. And I couldn't agree with you more. Sometimes it's focusing on your next step, not the 10 steps down the road. Because I imagine, you know, you're facing life and death in your situation. And it really forced you to get clear on a lot of things, that maybe at 25 it wasn't some... you know, things that you were thinking about.

JC

Dr. Jill Carnahan

11:21

You don't think about mortality at 25.

KS

Kendra Seymour

11:25

No, no. And so, my goodness, you... You're juggling all this and then you... you know, you beat the cancer and you move on and you start facing Crohn's. And then later mold. Can you just talk to us a little bit about that, too?

JC

Dr. Jill Carnahan

11:37

Sure. So, I get through three-drug chemo, super intensive, I lost all my hair, I was so, so, so sick. And what chemo does is it creates permeability in the gut. And it creates damage to all that rapidly dividing tissues. And everybody knows this who's been through cancer or known someone that has. And I was left after that nine months of treatment, just a shell of myself. Now, my spirit was still strong that has never wavered. But it was hard physically. And I started going back. And here's one of the other

lessons. I grew up in this German, stoic, hard-working farm family where there was no room for weakness. There was no room for like, the *be kind to yourself* mentality. No, you just buck up, you do it, you don't complain. And in the movie, there's a scene I call it the, "Ugly cry scene," where I go back to medical school, it was not rehearsed. And I literally break down as I'm looking at the lecture hall because I say, "Oh, my goodness, that girl in med school who was trying to hold it all together, for everyone else." I had three stepchildren I was married. I was in a small... I mean, there's a million things that I was juggling, plus a full medical school plus the cancer diagnosis. And to get through that, I had to really dissociate from grief and from any behavior that was like, "Oh, woe is me." And I just had to push on and show up. And now looking back, I'm like, "Oh, sweetheart, you're so brave. And you're so strong, and I can't believe what you got through." And we need to do that for ourselves. Because the truth is, we are all brave. And we're all strong. And we've all been...even if we haven't had big "T" trauma, which I didn't and I had a wonderful family. I had little "t" trauma and I had dissociation from pain and grief. As I'm filming the movie I literally felt all that wave of that compassion for that girl. And back to the whole "Work hard, buck up." I got out of chemotherapy and looking back, I should have taken a year off and like rested and recovered. I went literally chemo, radiation is done. Within a week, I'm back to rotations. I was so sick and I felt like, "Oh, I just took all this time off. I can't complain anymore. I have to show up." I started showing up to my ER rotation, I was running 101-102° temperature. No one knew I was so sick. And I was so, so, so weak, and so tired. And I didn't tell anyone, I just showed up. And it's funny because residency actually reinforces this, which is so sad for physicians. Because if you can't have empathy for yourself, how in the world can you have empathy for others? So it's no wonder that many of our physicians who come out of med school are, like, devoid of empathy, and they have to relearn that. But I remember like going into rotations and feeling like I was going to pass out. And one day I ended up in the ER, taking a place... patients blood pressure. I pass out on the floor, and ended up that night being rushed to emergency surgery for an abscess that turned out to be... The next morning the doctor came and said, "Jill, you have Crohn's disease." And it's like, "What?" And of course, in hindsight, I know the permeability of the chemotherapy affected the gut. I had a genetic predisposition towards Crohn's. So that microbial load was dumping into my bloodstream and created this immune reaction. And so, it's no wonder I developed Crohn's. But like I said, I look back and you see this scene in the movie of me looking back at that 20-something that was trying to hold everything together. And this is not just me, it's you mothers. It's you people dealing with mold. It's people out there that are trying to hold it all together. And part of the healing is just having that deepest compassion, letting yourself fall apart, letting yourself cry, letting yourself feel, like, overwhelmed and just letting all that emotion be okay. And having the deepest compassion because it's actually when we start to feel again. I had to really do that in my 40s, is re-feel all the trauma I went through. So I get Crohn's disease and I'm told, "There's lifelong, no cure, you're going to need immune modulating drugs, surgery, probably at some point...part of your life." And I literally was like, "Is this real? Can this really be happening?" And right before I left the doctor's office, I asked him one question, kind of changed my life. I said "Doc, does diet have

anything to do with this?” And I was very sincere and he did not pause. He just said, “Jill, diet has nothing to do with Crohn's.” And I thought, “Huh, that can't be true.” And so I went on a mission to kind of figure it out. And shortly after I came off... came across the Elaine Gottschall Specific Carbohydrate Diet. I made some pretty dramatic changes, including going gluten free, sugar free, dairy free, and within a couple of weeks, my fevers were gone, my abdominal pain was gone. And I was not cured, but that was the start of me realizing, “Oh, wait, I do have some control.” And now you know, 20 years later, I don't have Crohn's anymore.

KS

Kendra Seymour

15:57

That's amazing. There is so much power when you become your own advocate. And really, you know, begin to lean in and ask questions. And I know you talk about – not to jump around too much. You talk about, like, kind of trusting your gut. And that is something I have always said, and because there's that intuition there that told you like, “That can't be right.” Like, talk to us a little bit about that, because you make such a point of mentioning it in the book. I want to give you a moment to speak to it a little bit more.

JC

Dr. Jill Carnahan

16:28

Yeah, this is such a core message. And I love that you honed in on it. Because we can do all the nutrition, diet, supplements in the world and all these wonderful functional principles. But one of the core things in the movie was this acronym BLT: Believe, Love Trust. And that meant, you need to believe in yourself, you need to believe that you have power to heal, and that your body knows what to do if you just give it the right... You take away the bad, you add the good, and your body will restore; even in the midst of the most awful, even the midst of mold-related illness and some of these things and cancer and Crohn's. So believe in yourself, love yourself. And this is interesting, because the third one is, trust your intuition. And you really can't totally love all parts of yourself until you trust that you know that your intuition is powerful. And so in medical school, we're taught to use the analytical mind, and that the intuition has no value. But what I've learned is the analytical mind is like an old analog computer. And we can process a lot of data. And it's really important, and there's left-brained analysis and scientific studies. But on the other side, this intuitive side, our body intuitively, subconsciously can process millions of pieces of data in a fraction of a second and it comes with experience. So usually you have first these experiences, and then your intuition becomes stronger because your mind and body will process subconsciously, all of your past experiences, look for patterns that are similar, and then give you a sense of, like, peace going forward. And there's a real power if you're a patient. And this is where, like, medical gaslighting comes in because a lot of patients come in and they're like, “Doc, I'm tired. I've got brain fog, I'm not feeling well, I got a new rash.” And the doctor would be like, “Well, your labs look fine.” And we know *especially* in mold-related illness, the labs might look perfect, the patient looks perfect. And I always say, “It's way

harder to deal with mold-related illness than cancer,” and I've had both. Because you look good on the outside, you look like everything's fine. And the docs will be like, “Well.” Or they'll be like, “Well, mold just... Mold can cause allergies, but it can't cause immune dysfunction,” right? Because in medical school we are not taught about the innate immune effect of these mycotoxins. So all that to say back to intuition, when you think or feel something's wrong, you're right. And don't let anyone tell you differently and keep searching for someone who will uphold you and support you and look for root cause. Because mold especially, there's people that feel like they're going crazy, “Something's not right, I'm depressed, there's something new here, there's something different.” And they can trace back to when the water damage happened and be like, “Oh, I kind of knew something was off.” But someone like a doctor or even a friend that's well-meaning tells them everything's fine. It's all in your head. And then we start to lose that touch with ourselves. Because our self gives us that powerful, intuitive sense of what's right and wrong. And when someone else tells us, “That's not true,” we start to question. And so I just love getting people back into their intuitive heart and using both analytical reason and intuition to make the best decisions.

KS

Kendra Seymour

19:15

Yeah, I... That chokes me up a little bit because you've described our story. The same... “It's all in her head.” And that moment, where I made the decision that we were on our own, and we were going to figure this out, and we kind of took a leap of faith and it made all the difference. I mean, it's seared into my brain, probably will be to the day I die. But it's such a turning point. And I've talked to so many others who have those moments where they felt alone, but they had... They knew that there was something else and they had to trust themselves. And you know, against all odds – sometimes it feels like – push through and it turns out that they were onto something and they were right and it's that first step into healing. So, it's so powerful. And I love that you bring that out in your book. You kind of have talked a little bit about, like, you know, everything from your childhood to growing up, and then the... You know, treatment with cancer and you've talked about the, you know, people's toxic bucket. Can you explain that to people and what that looks like? And, you know, unpack it for us a little bit?

JC

Dr. Jill Carnahan

20:22

Sure. So the analogy is, as we go through life, we're all born with a bucket. And that bucket... As we go through even in utero, the studies that 2001, which now is two decades later came out that showed that cord blood of brand newborn infants had over 200, toxic chemicals. So it's only worse since that time. So you would literally come into life with your bucket partially full. And when we think about the bucket, what we're thinking about that water level is like the toxic load. And this could be from the air that we breathe, the water that we drink, the food that we eat, and all these exposures outside and it can even be toxic emotions, or unhealthy patterns of relating, this all fills our bucket. And so when we're young and resilient... That's why 20-something cancers is a little less common. Because usually, we have a lot of resilience, we have a lot of

margin in our bucket in our 20s and 30s. And then the more common 50s, 60s cancer diagnosis and chronic complex illness often comes later in life. But what happens is some of us... I always say the analogy of the 95-year-old with a gin and tonic in one hand and a cigar in the other and they're, like, just fine. That patient has a huge bucket and we all know one of those, right? We're like, "How in the world did they get by with this lifestyle?" And then they go, and then 96, they die of a heart attack and they're, you know, overall doing well. So someone like me; I was born with a lot of detox genetics that were impaired – which meant that my bucket filled up faster or maybe that I had a smaller bucket. And then growing up on the farm and the pesticides and the chemicals and maybe even well-water contamination. And being born with cord blood that probably already had toxic chemicals and then over life, eventually mold-related exposures and mycotoxins. And as that water level fills up, there's three things that are common that present themselves. One is autoimmunity. One is cancer, and the other is neurodegenerative diseases like Parkinson's, Alzheimer's, ALS, or just brain fog and cognition. And I can attest to all three of those because I had Crohn's, which is considered an autoimmune disease, cancer. And then I don't have any neurodegenerative diseases. But I've certainly had my share of brain fog in the midst of some of the mold and that. So this is what happens as our bucket pulls... fills up, and the water spills over the top and often presents with a new autoimmune disease or a new cancer diagnosis. And so as a clinician, as a physician, when I'm seeing a patient, I want to know... I can actually test mycotoxins, chemicals, polyfluorinated compounds, parabens, phthalates, metals, all of these things, and find out what's in their bucket. And then part of my job is to bring that water level down. Because all we really need is to give back margin and the body will kick in and do what it needs to do. And one of the most important principles that so aligned with your foundation is, I always say, "It starts with clean air, clean water, and clean food." And sometimes people get overwhelmed with the cost of supplements and all of this stuff, and that is doable. All you need to do is think about your air quality, maybe get an air filter, that's clean air, and 80% of the air that we breathe is our environmental toxic load. So a large percentage comes from the air that we breathe, and most people are so clueless about how much the air impacts us. So if all you do is get a good HEPA with a VOC filter in your bedroom, that's number one. And then number two, is clean water; making sure you're drinking clean, filtered water, ideally not from plastic water bottles. And you can do something as simple as a fridge filter that cost 30-40 bucks, or you can do a whole-house filter, and they're all wonderful. But you can start small there too. And then clean food and making sure that things that you're inputting into your system are 80 to 90%, clean, organic, non-GMO local when possible and full of nutrients, density.

KS

Kendra Seymour

23:54

Yeah, I love that. Because I think sometimes people think well, it's just genetics or I have bad luck. And when you approach it that way, like, makes it feel like I have no control. But there are so many things, even small steps that can add up to big differences long-term. Because it does sometimes feel like, "Oh, people are getting

sicker longer, you're... knowing more and more people that are facing serious health issues. And I just want to bury my head in the sand,” and I... We get that but it's about taking those small and measurable and meaningful steps that can make a big difference. So you, honestly, Dr. Jill, just like everything that you have gone through... I'm still blown away by your positivity. So you get through Crohn's and then you start to stumble upon this mold business, which I'm sure you never in a million years thought this would be something you'd be tackling. Talk to us about some of the symptoms you were seeing or even just the symptoms you've seen patients in general who are coming in who have been exposed to mold.

JC

Dr. Jill Carnahan

24:54

Yes, I'm in my final year of med school; the Crohn's, and I figured that out and with diet and the microbiome I really learned and I cured myself from Crohn's and was free of cancer. And then, I was doing pretty well in my 30s and moved out to Colorado to start my practice, and running, and hiking, and life was good. 2013 there was a massive flood in Boulder. And sadly, with our climate, we're seeing more and more floods and hurricanes. And this is where you and I always watch the news, probably like, “Ah, mold!” right? So I didn't know that back then. But there was a massive flood in Boulder like a 1000-year flood, they called it. And this is happening all over the world now. And so tons of the city was underwater, there was literally almost a billion dollars of damage. I was in my office in South Boulder. I was literally seeing patients the day the rain was coming down, and didn't think a whole lot of it, except that it was a terrible tragedy. Well six to 12 months later, I started having shortness of breath, brain fog, red, itchy eyes, skin rashes, immune weaknesses, and I could go on and on. And in my mind, I knew about mold, I knew that it's possible that it could be some environmental illness. But there's this piece – and I want to acknowledge this because those people who have dealt with this have probably had this before too. There's a little bit of denial. That often happens. And I think every one of us who's been through this have probably had that piece of denial like, “Oh not this...” Because what happens if it's mold? If it's your office or your home, you need to remediate. You need to move, you need to fix it. And often not only emotionally, but financially, this can be devastating, like overwhelming. In fact, I did just have a friend who just found out after two remediations she's got massive *Chaetomium*. And I'm gonna have a call with her later today about that issue because she's like, in tears. Her daughter and her live there and they're having symptoms and we know there's an issue. And this is after the third remediation, right? And this is not uncommon. So I knew there could be something and finally I was brave enough to do my own urine testing. And this was kind of – I don't know how many years ago – but it was at the early stages maybe eight years ago, when we were first starting to test urinary mycotoxins. Now I want to say if you're listening, urinary mycotoxins are not the end all be all. So I think that it's very, very important to get the big picture and not just rely on urinary mycotoxins because you could have had an exposure a long time ago, and you don't currently have an exposure, you could still be excreting old mycotoxins. So it's not just there's one test for this. But that test happened to be positive. And then I

brought an inspector into my office and we found bulk samples of *Stachybotrys* in the basement. And in hindsight, it's almost funny because my office was built above a crawlspace that was unfinished with standing water. Didn't know that. In the basement – so there was basically a basement with already mold and worsened by the flooding and it was bulk all over the place. And then the next one was a crawlspace. And then the next level my office on the second floor, and in my second-floor office when I moved in, we remodeled made beautiful bamboo floors. But for some reason the contractor just threw down this bamboo, beautiful, new flooring on top of old carpet. Like, can you imagine? The bamboo is really soft. So you're literally *puff, puff, puff*. Every step you take, you're puffing up the old whatever garbage. And that was right above a crawlspace that was unfinished. Now in hindsight, it's like, "No wonder!" We almost didn't need the flood and I probably still would have gotten sick. But everything about it was wrong. And I started getting really, really sick. And the day I found the *Stachybotrys* in the basement, and then trichothecenes in my urine, which is a match for exposure. I knew, and talk about intuition. I had data. But intuitively I knew. I literally did not set foot in that office ever again. I sold everything, got rid of everything, started over. And I took my paper charts – at that time, I was still using paper. And it wasn't until I scanned those paper charts in that were from the moldy office that I really started seeing an improvement in my labs and my health. So that's where I realized, "Oh," because I had a whole library of medical school books I had to get rid of.

KS

Kendra Seymour

28:36

Yeah, it's so hard. I mean... And eight years ago, thankfully, there has been so much progress. We still have a long way to go. Our journey started eight or ten years ago as well. And I remember, you know, thinking the same thing, right? Oh, it's just an allergy. My house looks fine. You... People think it's like the haunted house, the giant wall of mold. Not that... It's very rarely what it looks like, right? It's hidden. It's in crawl spaces. It's behind walls, it's underneath floors, it's in attics. And I think sometimes the initial event, the flood... It's not till six months later, when the symptoms really begin to compound that, you know, you start to think, "Oh, I'm not feeling well." And it's not obvious. There's not a single test. It's not like a pregnancy test, right? "Oh, you have it or you don't." That would be so great. So it's definitely something that I think is overlooked for so many reasons. And you're trying to change that, we're trying to change that at the Foundation. So, if somebody is experiencing some of these symptoms, where would they start, like, medically speaking? Because if you go to a traditional doctor, not all of them are going to be on board with environmental factors.

JC

Dr. Jill Carnahan

29:49

And they might just be ignorant. They don't know. It's not that they don't want to help you, but it's often ignorance because they've never been taught. Because we're not taught in medical school. So let's talk about first what would it present like. So, if you have onset of cognition issues like you have trouble remembering words. Word-finding, remembering words, saying the right words is a real common thing. So you literally want

to say, “cat,” and you say, “dog.” Or you can’t think of the word, that’s very specific to mold. Though there’s other things that cause that as well. So any cognition difficulties and probably the number one thing is the brain fog kinds of stuff. Fatigue is huge, because mold is a toxin for the mitochondria, so it often makes you more tired. For me I now feel like there’s personalities of mold. For me in particular like Chaetomium, I call it the narcoleptic mold, because when I get exposed to Chaetomium, I lay down for a nap, like immediately. And now I look back, I know I could tell you the whole pathway. I won’t bore you, but it’s a biochemical pathway that makes my blood pressure drop. And so I’m super hypotensive which makes me very tired and I lay down and feel better because I’m horizontal. So, and that’s Chaetomium. So there’s these other things; it weakens immune system. So often you’ll have cold sores pop up, or shingles pop up or old Lyme symptoms pop up. So old infections get, you know, a foothold and start acting up. Mast Cell Activation can be part of this. And mast cells can cause every system, tachycardia, heart rate increase, POTS, dysautonomia. We have blood pressure drops, you can have leaky gut, so all of a sudden, you become incredibly sensitive to foods that you never, they never bothered you before. You can have just gut issues like heartburn, or diarrhea, constipation, bloating, gas, often because of the weakened immune system, you’ll get fungal overgrowth in your lungs or sinuses or gut. You often have congestion. For me now if I get into a moldy hotel or something, I’ll feel pressure my sinuses, I can kind of tell. Or you might have irritable... irritation in eyes, watery eyes, itchy eyes, red eyes, so all your mucous membranes are affected. And those are just a few. You can have actually neurological numbness, tingling, other things like that. But those are symptoms. And of course, those are broad range – we say they’re multi-symptom, multi-system. So most doctors would hear that and be like, “Oh, maybe you have an autoimmune disease.” Which, speaking of which, mold can also cause new onset asthma, new onset autoimmunity. So if you have a new onset neurological, asthma, autoimmune disease – and the way you figure this out, is often if you do your own timeline. If I’m a doctor in the clinic, I’m asking them, “When did you first start feeling unwell? And when do you last remember feeling well?” And, “You can track it back to 2018?” “Oh, well, a year before that, I moved into a new house.” And I loved what you said there because so many people think, “Oh, I bought this new multimillion dollar home.” Right? That is no guarantee. And in fact, the way construction is, I think the biggest sector that we’re seeing for mold-related damage is brand new homes, new builds, things that... And someone will put a cabinet in the kitchen and go through a pipe with a nail, or someone will install a dishwasher poorly. Or I’ve seen multiple cases where someone puts a line for the fridge water line in the wall and they forget to connect it. Like, silly just construction defects, or they don’t put the shower pan in properly or they don’t seal the seat in the shower. And then someone has this beautiful new home. And every time they shower, the water is going into the drywall under the seat in the shower. And over 2-3 years, there’s massive mold growth. And I could name 101 other things. Crawl spaces in Colorado where I live are real commonly... they’re not sealed properly. And if you have any airflow going through attic or crawlspace, and those aren’t clean of mold, you’re going to pull that moldy air right back into your home. So you can have a beautiful brand new home, everything looks gorgeous. And I’d say 95% of the

time you don't see a big nasty black place in your home, you see beautiful, pristine walls, and there's an issue that's invisible. So that's just, like, how you might see it. And then what do you do? So typically, we do like urine mycotoxin testing, but it's not perfect. And it's also... Say you find out you have mold and you're detoxifying. If you do that test right after you start detoxifying, you're going to be...this is an excretional test, so you're excreting mycotoxins after you get out of the home and after you detox. So if you do that test six months into your detox, it should be higher, it should have more levels. So you have to know as a clinician... And if you're a patient, I know you're like, "Oh, no, there's more mold." Well, maybe not. You might be out of it. And you might be finally lowering the level of toxic load in your bucket. And that's a good thing. So you have to know how to interpret that and not jump to conclusions, especially if you're in detox. And then I like to do... Obviously inspectors are the very best, to get a good inspector. But if you're out there, and you're trying to figure things out, I love recommending qPCR, which is a dust sample. And then you can figure out what's the kind of historical snapshot of the home. And see if there's any issues. So history, you can do visual contrast studies online and see if those are abnormal – which affects the retina of the eye and ability to perceive light and dark and that's a... It's not a diagnostic test, but it can show if it's abnormal that you might have exposure. So, history, contrast testing, and then mycotoxin testing. I do a lot of mold markers in the blood, too, for like the innate immune system. So I still do TGF- β , MSH, ADH and osmolality, VEGF, and MMP-9. And those... Again none of them are diagnostic, but if all of them are abnormal, you see an innate immune response that could be mold. So I put all that together. And then I talk to them about their history. And we can usually make a pretty good diagnosis from those pieces of the puzzle.

KS

Kendra Seymour

35:11

Yeah, and I... You lay that out so beautifully in your book, too. In addition to your story, and hope, I mean, you do such a good job of getting it all in there. Because it really is like this puzzle. You're a detective. And you spoke at our summit before, and I think we called your piece like "The Sherlock Holmes of Medicine." Because it's really what it is, I think a lot of the time. So one of the things – and I don't know how you feel about this – if you hear the words when it comes to health, "incurable and irreversible", what comes to mind?

JC

Dr. Jill Carnahan

35:41

Oh, I love this because I love talking about reversing the irreversible and curing the incurable. Because truly, so often, autoimmune disease is a great example. Most of the time, Crohn's, colitis, rheumatoid arthritis, multiple sclerosis, or any lupus – you name any number of these autoimmune diseases – and we're told this is lifelong, it's incurable. But we know with autoimmune disease, there's a triad. And if we, as a Functional Medicine Doctor, look at that triad and go to the trajectory of where someone's moving along that. And they someday get autoimmune disease and say, "Well, what led to that?" In the triad, there's genetics, which can't always be changed.

Although, now we know epigenetics is the study of changing expression of the genes through our diet and lifestyle and that. So if you have a toxic exposure or a poor diet, you can actually express certain genes. Whereas if you reverse that, you might change the expression. So even that is changeable. The second piece is environmental triggers. And environmental triggers could be toxic mold, it could be chemicals, it could be the air that we breathe, it could be the food that we eat, it could be gluten. And then on the third side is the gut-immune interface, and everything autoimmune related, and even a lot of mold related toxicity starts with this gut-immune interface. We have a gut lumen from mouth to anus, that lines our gut and is our interface with the environment. So what happens is this interface – as we have food and things that come through our gut lumen – if there is permeability in the gut (and mold by nature causes massive intestinal permeability, same with chemo for me). And any of these insults, that create... It's almost like swiss cheese for guts. So then you have bacterial coatings. And if you have any fungal overgrowth that leaks into the bloodstream, and this is the cascade that starts the process of autoimmune disease. Because what it is, is this overreaction triggering immune system. Immune system is trying to respond like it should. Something that they think is bad (but it might be just a corn antigen), and then that immune response gets overactivated and starts to attack self. So if we know that whole big process that I explained; genetics, environmental triggers, gut-immune interface, and we go fix the gut. Take away the triggers, and we do genetic... change genetic expression, whenever it's possible, we can literally reverse the irreversible, which is most autoimmune diseases.

KS

Kendra Seymour

37:53

That is... It is so inspiring. And I think something that I hope people lean into. When we first kind of made the switch to integrative medicine and getting to the root cause, it really it made so much sense. Like, "Oh, like, yeah, I don't want to just pill for this, I don't want to just deal with this or manage this. If there's something more we can do that gets to the underlying cause, why not?" And it's also empowering to know that you're not a victim of your genetics, that there are things that you can do. Your body is designed to heal. And I know I've heard you say that before. It's just... It's so, I think, empowering for people. Because no doubt what you're going through is hard, but not to give up that hope. So I know we're getting a little low on time. But I always like to ask, and I know this is going to be hard for you. But what are three things that you do in your own personal life that bring you health. And it can be emotional health, or physical or whatever. But if you had to pick just three that you love, what are they?

JC

Dr. Jill Carnahan

38:53

Oh, gosh, like you said, I have a ton, but I'll pick three. Well, one thing I want to just say is these habits for me are probably the foundation of my resilience. And not just the three I'm giving you, but actually creating sustainable habits. So whether it for you, it's something different. If you create routine and habit that really reinforce your health. For me, that's the most important thing. So number one is sleep, hands down. Getting a

good night's sleep is for me the foundation. And I happen to be a good sleeper, but with hormones and fluctuations, there's times when I don't feel like I'm sleeping as well. So I'll do whatever it takes. Even saying, "No," to a fun activity if I know it's gonna keep me out way past my bedtime. And I'm pretty routine. So I don't like to have those big swings of, like, staying up till 1am on the weekends. I'm pretty consistent. So consistent bedtime, I like to take magnesium. I take this new ZenBiome Sleep that I've loved. It's a probiotic for sleep, and I love my PEMF mat. So those are things that I really core use for sleep. Second thing for me is, I have a very strong faith and maybe not all your listeners have that or have any belief in a higher power at all. But for me, that's a really foundational principle of this deep ability to believe that there are possibilities. Believe that there's something greater. And belief for me, I believe is a guiding force in my life that is for my good. And that is guiding me and directing me, even in the midst of most difficult circumstances, that there's, like, always that hope. And that hope comes from knowing that I can always learn from these teachers that feel like really awful things. And that also, there's a greater meaning and purpose, like there is something that can come from the most dark circumstances. So that kind of faith and meditation, prayer really guides a lot of what I do. And then the third, I would say, I'm really a stickler about the food that I eat, clean food. And I'll travel with food, I'll order food, if I'm out, I will – like in the airport, whenever I travel – I take my meal on the plane. And so I'm really diligent about preparing. Because if you don't plan, you're gonna fail. So that whole planning, and I tend to take my own food places or pack a lunch, or pack snacks, or make sure that I have good resources. Because often if we're tired or hungry, or we get home and the pantry doesn't have anything, we'll choose poor dietary things. And I've found in my journey with Crohn's and cancer, that food was such a core for healing. And so I don't mess around with that. And I'll just mention because some people out there ... I loved Gretchen Rubin talked about abstainers and moderators. Abstainers are those that need a rule, I'm the abstainer. Because the rule actually frees me from having to make the decision. If someone brings bread to my table, I'm gluten free. That's a rule. I never ever, ever think about, "Do I eat gluten or not?" Or even like smoking, I don't smoke, or you name it, like those things. It's never a decision. It's just, "This is me." So when you take something that matters to you, and make it part of your identity versus a decision, we often over the daytime – this is proven by science – that decision-making fatigue happens. So by the end of the day, you've lost... You've used up all your decision-making resources. And if there's ice cream there, you're like, "Oh, I might as well." Right? For me the rules – the abstainer mentality – helps me because I have certain rules about life. And I never have to waste decision-making power. But I want to mention there are some people who are moderators. And those rules will drive them crazy. And they need like an 80/20. So you kind of have to know, are you an abstainer? That the rule just fits and that's it, or you're a moderator. And either way's, okay, but you can use that to create good habits in your life. Well,

KS

Kendra Seymour

42:08

I never realized that about myself. I'm a rule follower, like you. I've been gluten and dairy-free for years now. And I have to be 100%... I'm all in or not at all. I can't do the 80/20. Because I'll... It'll become you know, 70/30 and then all hope is lost.

JC

Dr. Jill Carnahan

42:23

Me too. Exactly. Yeah.

KS

Kendra Seymour

42:25

Yeah, I need the... I need the rules. I'm definitely the "Type A" there. That is so wonderful. And I appreciate all of that. And the sleep, I think people think, "It can't be that simple." But there's so much healing and restoring that our body does and so that's something almost all of us have control over. You have so many amazing resources between your book, your documentary, you have a strong, you know, social media presence, and your podcasts and things. How can people get into contact with you? How can they find you? What... Where are your resources at for people?

JC

Dr. Jill Carnahan

42:58

Thanks, Kendra. Well, I'm gonna mention Instagram, because I actually read all my messages and respond. It's just [@DrJillCarnahan](#). And so be sure and follow me there. My main website is my name, [JillCarnahan.com](#). And there are free blogs and podcasts and all kinds of resources, they are all free. And the movie site, which you mentioned is [DoctorPatientMovie.com](#). And you can rent, buy, share. One thing we really did with this that I'm so excited about, is there's a gift option. And what I'm hoping is, one of the biggest feedbacks we got from audiences is that doctors and med students should watch this. So if you watched it and want to share it with your doctor, you can do that. Or if there's someone in your life that needs hope and healing, we did that purposefully because we thought if someone's impacted and they're like, "Oh my gosh, so and so needs to see this," you can share it as well.

KS

Kendra Seymour

43:41

It's... I've seen it, it's uplifting, it brought tears to my eyes. It's inspiring, and it's everything that you need it to be for your healing journey. So I thank you for for sharing your story, and all the work that you're doing and for joining us today from the bottom of my heart, we appreciate it.

JC

Dr. Jill Carnahan

43:59

Thank you, Kendra and same to you. Love Change the Air Foundation. And we'll continue to support that I and hope the word gets out because this is where I think it's the biggest crisis in healing, is air quality.

KS

Kendra Seymour

44:09

Yeah, it's definitely a hidden epidemic. And thank you for helping us to shine a light on it. And for everyone listening, if you found this interview helpful, do me a favor, head on over to [ChangeTheAirFoundation.org](https://www.changetheairfoundation.org). Sign up for our newsletter, because it really is the best way to get great information like this directly to your inbox. We'll see you next time. Thank you so much.

ChangeTheAirFoundation.org