



Essential Alchemy

The Ancient Art of Healing Naturally

Season 3, Episode 1: Why Mold Matters with Dr. Jill Carnahan

Jodi Cohen: Hello, I'm Jodi Cohen, your host, and I'm so excited for today's guest. Dr. Jill Carnahan is your functional medicine expert who is duly board certified in family medicine for 10 years and in integrative holistic medicine since 2015.

She is the medical director of Flatiron Functional Medicine, a widely sought-after practice with a broad range of clinical services including functional medical protocols, nutritional consultations, chiropractic therapy, naturopathic medicine, acupuncture, and massage therapy. As a survivor of breast cancer, Crohn's disease, and toxic mold illness, she brings a unique perspective to treating patients in the midst of complex and chronic illness.

Her clinic specializes in searching for the underlying triggers that contribute to illness through cutting-edge lab testing and tailoring the intervention to specific needs. Welcome so much, Jill. It's a pleasure to have you.

Jill Carnahan: Thank you, Jodi. Always a pleasure to see you as well.

Jodi Cohen: I would love to start with your story because you know, you obviously have the medical certification, but you also have the personal experience.

Jill Carnahan: I grew on a farm in central Illinois, one of five children, and had really a wonderful life growing up, and I had no idea that some of the toxic chemicals on the farm were contributing to my illness. In med school, in my third year of medical school, I was 25 years old. Literally just weeks after my 25th birthday, I found a lump in my left breast, and I would've just kept going with rotations.

Kind of ignored it. You know, young women don't get breast cancer, but you know where the story is going. I ended up having a mammogram, an ultrasound that were highly suspicious, and then a biopsy. And I'll never forget the day that that surgeon gave me a call and my life really changed forever.

She said, "Jill, you have aggressive breast cancer. I don't know what to tell you. You're gonna be in for the battle of your life." And at that point, at Leola University where I was studying medicine, I was the youngest one they'd ever diagnosed.

Jill Carnahan: Sadly, there's more and more young, young women with breast cancer. It's not that uncommon. But at that time, 2001, I was literally the youngest one they'd ever seen or diagnosed. So it was kind of an anomaly. And I was really, I really was in the battle of my life. And at that moment everything changes 'cause you don't know if you have six weeks or six months or six years. But I ended up doing very aggressive three drug chemotherapy.

I had surgery, I had radiation, and about nine months later I was considered cured, or at least in remission for the moment. But I was devastated. My gut was destroyed from the chemotherapy. I lost all my hair, bald and hairless. But kind of went right back into rotations. I'm like, "Okay. I got through cancer." I took nine months off to do the treatment and then went back into rotations. And that was back before I really knew how to take care of myself and be kind to myself and just went by right back in. Even after this treatment I was quite sick, and I was starting to have cyclical fevers.

I would have fevers up to like 101, 102, and just kept working. Didn't complain, didn't say anything. I mean, I was really, really sick. My gut was pretty destroyed, and I just thought, "Oh, I've just been through a lot." You know, my body needs time to heal until one day I couldn't ignore it anymore. I was taking a patient's blood pressure and I passed out cold in the ER. And that night I ended up being admitted for an emergency surgery for an abscess.

And the surgeon the next day woke me up and was telling me what was happening and he said, "Jill, you have Crohn's disease." Like from the surgery he knew that I had Crohn's disease. So this was all within like the year of my 25th birthday and second diagnosis. And I was still kind of in shock, like, how could this be?

Now looking back with the functional medicine lens, I can understand because that chemotherapy, one of the drugs I had was Cytoxan or cyclophosphamide, and it's actually designed to create a more permeable gut as part of the way it influences cancer. So it basically allows your gut microbiome to dump into the bloodstream and that triggers the immune system to help fight the cancer.

I didn't know any of this and I didn't know that I had a high risk gene, both for Celiac and for Crohn's disease. So what happens with Crohn's is it's an abnormal response to a normal microbial threat. So when you have this dumping of microbes into the bloodstream from a leaky gut that was triggered by chemotherapy, all of a sudden my immune system got aggravated and starting to attack the gut lining.

Jill Carnahan: And that's what Crohn's is, where you have attack and damage to the gut lining and malnutrition and malabsorption. So here I was faced with Crohn's. What do I do? How do I get over this thing? And I remember sitting with a gastroenteric. In my visit after the surgery and said, "You know, doc, what is this? What's going on? What do I do?" He said, "Jill, this is Crohn's disease. It's lifelong. There's no cure. You're gonna need steroids. You're gonna need immune modulating drugs. You'll probably have part of your colon removed over your lifetime. This is incurable." I mean, he was very hopeful, right?

But before I left, I asked him one question, and this question also kind of changed my life. I said, "You know, doc," and I was sincere. I was like, "I wanna do whatever I can in my power. Does diet have anything to do with this? Could I change my diet?" And he did not even pause. And he said, "Jill, diet has nothing to do with this."

So I was in shock, but I thought, you know, that can't be right. My tuition said there had to be something to do with diet. So I went down a path of looking for answers, and I came across Elaine Gottschalls Specific Carbohydrate Diet. And I started changing my diet and within several weeks, my fevers were gone. My symptoms were controlled. It took me several years to really heal the diet, but I knew right then and there diet did have something to do with it, and it changed. I always knew I had a more holistic view of medicine, but those experiences in medical school really, really changed my trajectory as far as how I look at the ability of the body to heal and overcome and the limitations. I still believe pharmaceuticals have a place, but there's limitations.

Jodi Cohen: That's amazing. Everyone that I really admire kind of has that one moment of, this is the hill you could die on. Like you're 25, medical school is such a grind. It's so hard. You get cancer, you survive cancer, and then instead of getting better, you get this other challenge. You know what, you kind of talked about that moment, but what is it, why do you think you were able to take that moment and be like, oh, what can I do with this? What can I learn? Like, talk to me about that a little bit.

Jill Carnahan: Jodi, I love that you're going here 'cause if there's like one message in the book, it's like this message of we all have struggles. I am not unique and my story is not unique in the sense of everybody has parents, children themselves that maybe have overcome illness or dealt with illness or in the midst of illness right now.

And I think one of the lessons that I wanna impart, that I had to learn myself through this is... Every struggle, every difficulty, every trial that comes our way, there is a lesson and if we allow it, there is learning and power in transformation in those processes, and sometimes in those processes, they tend to be the most profound, impactful times in our lives when we look back.

Jill Carnahan: And this was no different from me because that really gave me a foundation of healer. And to be that patient, to understand what it's like to face death. You know, and to understand how that feels and how scary it can be, it gave me a whole different understanding. It was definitely just as great a teacher as my medical education.

And so now life has thrown me other curve balls, I always come with the fact of I know that struggle is coming, the uncertainty of life is inevitable. But if we can have that lens of looking for something meaningful in the process, and if I can teach people to do the same, there is power and transformation in the most difficult circumstances.

Jodi Cohen: Completely agree. And it shifts, it's like changed the narrative when you go from that victim mindset to maybe there's something I can learn. It just allows everything to shift. And one of the things that I wanted to ask you about, we can unpack a little bit why you think, what contributed to breast cancer at such a young age, but like emotional and physical root of challenges.

Jill Carnahan: I didn't know this until my thirties, but I talk about this in the book called Highly Sensitive Persons. This is a prototype that Elaine Erin wrote about and she wrote about it more psychologically, which is the sights and sounds and smells and overwhelm, and too many people and crowds and not enough sleep.

For some of us, there's about 10 to 15% of the population that's highly sensitive and we're just very sensitive to environmental inputs. And you could think of this as real negative. I know I did for the first half of my life. Like why am I so sensitive? Why is this everything bothering me? In the book, I write more deeply about it because it's not just emotional, it's like the chemicals in the environment and that we're the canaries.

So we're also the ones that are more susceptible to chemical toxicity and mold related illness and infections and toxins.

And so it's a really broad thing because it's not just that emotional sensitivity. And then I even flip it on its head and say, wait, what if this is a gift? And I do believe it is. And the gift in that sensitivity is that we're perceptive about details in the world that maybe other people aren't really paying attention to, and looking for patterns and seeing things. And even in relationships often, I wanna go deep with people. I wanna know what makes them tick. I wanna know what drives them, what their fears are.

Jill Carnahan: So no small talk for me. I wanna go deep and find out who you are and go to that level, and that's a part of that prototype. But if you flip it on its head and you happen to be one of those people who is very sensitive to environmental chemicals and toxins and emotions and all. It's actually your gift because you can see things in details that maybe other people are missing.

So I think that's a real powerful transformation.

Jodi Cohen: I also think that it allows you to kind of walk out of the fire carrying water for those who are still burning. You know, like you experience it more intensely. So if it worked for you, you can help support other people.

Jill Carnahan: Absolutely. So many of the stories in my book are not about, they're about me, but they're really not. What my goal and my desire is, is for the reader to see their own journey reflected in that story. And also know that this is possible for me, too. Like giving hope and inspiring that we can all, no one's unique. I'm not unique. But we all have the power to overcome and we all have the resources if we start to believe that and change our perspective.

Jodi Cohen: That's so interesting. When my son died, that was the first thing I wanted. I wanted to know that somebody else had been through that and been okay, because if it could be done, then I could do it. And so I love that you're putting that out there cuz it's so inspiring and it makes it more accessible to everyone.

Jill Carnahan: And I love that you share that, Jodi, 'cause that is so true, right In the midst of our suffering, if we just know we're not alone, which we aren't, but sometimes our mind tells us lies that you're the only one that's ever felt this way. You must be alone. And in fact, I think in some of the darkest, deepest depressions where people are contemplating suicide, which is the saddest thing in the world, I think those kinds of places are where we feel the most alone. And it's not true, it's just not true. But those lies can be so deceptive and so devastating if we believe.

Jodi Cohen: Your book Unexpected, where can they get it?

Jill Carnahan: So readunexpected.com, Amazon, Barnes & Noble, or any way you get your books.

Jodi Cohen: Yeah, it's amazing. I know you're such an expert on mold toxicity and mass cells. I'd love to dive into that a little bit more and just get a sense of you. Can you talk about your mold story and your recovery and some signs and symptoms of mold toxicity for anyone who might be suffering and may not even be aware that that's what's going on.

Jill Carnahan: I've been shocked at, I always joke I would've never, like Lyme disease and mold. I'm like, "Oh, I don't wanna do that." But then the inevitable happened. I dealt with that myself, and so I became an expert in mold back in 2013, there was a massive flood in Boulder. It affected literally thousands and thousands of homes, buildings, and structures. My office was in Boulder at that time in medical office. There was a flood there. And unbeknownst to me, there was some structural issues.

There probably had already been some water damage in the basement. There was an unfinished crawlspace right below my office and many, many factors contributing. But I started getting sick that next year I started getting shortness of breath, trouble with respiratory issues and sinuses, more allergies, more sensitivities to food. Red itchy skin, irritated eyes would be red and and swollen after work. My brain, I'd have trouble with memory, word finding or words and names and you know, faces and things like that.

It really affected so many areas and I kind of was in denial in the beginning 'cause I thought, "Oh gosh, if there's an environmental trigger, I have to move or figure out what's going on." But eventually it got bad enough to where I did testing in the samples in the basement where I worked and then did samples in my blood, in my urine. And I found the markers for mold were there.

So I left the office. I literally left 20 years of medical school textbooks and started over. I worked outta my home for a period of time, and then I got a temporary office space and eventually where I am now.

But it took some time, but all of a sudden I was faced with mold related illness and I was like, I have to figure this out. Mold related illness, number one, it can drive massive hormonal disruptions that can cause weight loss, weight gain, adrenal dysfunction, really low cortisol, really high cortisol, excessive estrogen dominance. So fibrocystic breast, floating and mood disorders with periods, heavy periods, painful periods.

Men can have lack of testosterone because it's being converted to estrogen. But they get man boobs, central weight gain, low libido, diabetes. So a ton of disruption in the whole endocrine system in the body.

The immune system disrupted. The respiratory system has disruption and inflammation, and it actually relates to mast cell activation because mold is one of the biggest triggers. Two mast cell activation. So if you're struggling from new onset allergies, asthma, mast cell activation, multiple chemical sensitivity, mold could be at the source as at the root.

Jill Carnahan: So you have to at least think about that as a possibility. I really dove in and realized we have to detox and work on the liver-gallbladder access when we wanna get healed from mold. The first step is getting out of the exposure. So you have to find a way to get in an environment that's clean enough so that you can get well.

And again, this doesn't mean you have to sell everything you own or move out. Sometimes you can fix it.

But porous materials, for example, the charts that I took from my office were paper. And when I took them into my new office, I didn't really get well until I scanned those records and I didn't use that paper.

And that seems like a small thing, but that was a big enough thing to keep me unwell and my lab's abnormal until I scanned those paper charts. Now I'm way more resilient. Six, seven years later. So I probably would be okay with some exposure. And part of the book, part of my protocol with patients is how do we become more resilient to mold so that we don't have to fear being exposed every time.

And I feel like now I can travel good hotels, get some mold exposure. I know what to do, I know how to fix it. I may not feel great for a day, but it doesn't take me down. And that's part of the goal here is people get so fearful about mold and rightfully so, but I wanna empower the reader and my patients to really be able to overcome that and create more resilience so that they can be around mold and not fear it so much.

Jodi Cohen: Let's unpack that a little bit because I'm sure everyone that's listening, myself included, is fascinated by that. So we know mold gets in the sinuses. You mentioned sinus infections and you mentioned the liver and the gallbladder. Can you walk us through your basic protocol?

Jill Carnahan: Sure. Yeah. So what do we do if we get explicit mold?

I have to mention this again cause it's number one, you can't have a massive load, so it's like if your toxic load, which we always think about as a bucket, is starting to fill up with chemicals, et cetera, and all of a sudden you get a mold exposure and that mold takes that bucket water level over the top and starts to spill over your bucket - Your detox is completely at capacity and you won't get well until you give yourself some margins. So you take that water level down, even just an inch or two, and I always say, you don't have to know every last toxin in the bucket 'cause it can be overwhelming with your practitioner or your patient like, I don't know how to find out the thousands of chemicals I've been exposed to.

Jill Carnahan: All you have to do is start with a little bit of margin, and I'm gonna start with really, really basic clean air, clean water, clean food. So the very, very basic level, you need clean input. So you need to be out of an environment that is soaked with mold or loaded with mold because if it's loaded with mold, there's no way your bucket can bail out the water and get some margin back. And that's why that's critical.

And even if it's temporary, sometimes that works where you maybe get your house remediated and you temporarily go to a new space. So that getting out of the exposure is number one. Clean air would mean you use air filtration. I'm a huge fan of Austin Air IQ Air. There's many out there, but you want a HEPA filtration system and a VOC filter for the small particulate, that's 2.5 microns or below. That's viruses, that's formaldehyde, that's fumes, and that's mycotoxins. Those are all the small particulate. A HEPA filter won't filter that. You must have a VOC filter.

Usually those filters will have zeolite, clay, or charcoal in the filter to filter out those fumes. That's key. So clean air.

Jodi Cohen: Are there brands you like?

Jill Carnahan: Yeah, so Austin Air and IQ Air are my two favorites. I have three Austin Air's at home and five at work, so I'm a huge fan and there's others, but those are the two that I know have VOC and HEPA filtration.

In your furnace, you wanna make sure at your home you have a good, as high rating as you can get to fit into your furnace, filter. Like usually it's Merv 13 or Merv 16 rating or above, and that will be the airflow, it's gonna be restricted a little. So the higher Merv rating you get, the more energy you're going to use. But for me, it's worth it to get a high filtration rate and change that out every three months. And I literally put a little sticky note on my air filter three months and when it needs to be changed, so that I remember.

So that's clean air, so, so important. Clean water. You wanna make sure you're not drinking from plastic water bottles, you're drinking clean, filtered water. Reverse osmosis is a great way to filter your whole house. You can also get pitchers and things on your countertop. I have a couple of those that do a great job of filtering water and you wanna get clean, filtered water. Water that's from mineral sources is also really good. So distilled or sparkling mineral water, if it's from a clean source, is great as well. And then clean food, eating organic whenever possible. Local, no GMOs, and whenever possible trying to find produce close to home that's not traveled for weeks in a truck.

Jill Carnahan: And that's hard nowadays to do. So those are the foundations. And then actual detox. So mold is detoxed when it's metabolized through the liver, phase one and phase two, and they basically take something that's in your tissue. So if you've been exposed, you can literally have microtoxins in your tissues. It's more rare for someone to actually have a colonization of like, say, aspergillus, like a fungal ball in their lungs. That does happen, but that's actually quite rare. So we don't usually see like mold growing in the body, although we can. It's more often the microtoxins from the environment, those really small particulate gets stuck in our tissues.

So we have this toxic load related to what the mold produced, and then we need to detox to get those out of our bodies. And those who tend to get sick from the mold tend to have more trouble getting them outta their body. So our liver and gallbladder is one of our main places. From Germany and Switzerland when I did some detox stuff, they always say, "delivers the queen, respect the queen." And I kind of love that because it's like this organ that doesn't get a lot of respect, but it's so important.

And basically, that's phase one, phase two takes it from a fat-label metabolite into water-soluble and excretes it into the bile, which is stored in the gallbladder. And then that's drip, drip, dripped out into the intestines. So what we do is we support the liver, which is glutathione, glycine, glutamine, an acetylcysteine, lipoic acid milk, silvas are all things you can use to support the liver and that phase one and phase two be vitamins, methylated bees. And I know you have some good essential oils that are wonderful for liver, pancreas, gall bladder too.

Definitely check that out. And cause I've used those in really sensitive patients. I love that as an adjuvant and even topically. Which is amazing, and again, you're the expert on that, not me. Then the gallbladder will squeeze out that bile, which is loaded with cholesterol and toxins.

And so if we use a binder, and that could be charcoal, clay, glycol, zeolite, chlorella, many forms, of citrus pectin, and even prescription binders like um, WelChol, or cholestyramine, and that, that will then bind with an electrostatic charge to particulate from the bile and pull it out through your stool.

So if you're doing a liver detox, glutathione support, and then doing some sort of binder, that's the basic way that we kind of decrease that toxic load from mold.

Jodi Cohen: I love that. Thank you so much. Can you talk a little bit about mast cell activation and how to kind of unravel that?

Jill Carnahan: So this is super common and got even more common 'cause Covid was a big trigger. So we, post-pandemic, saw that being a trigger for a lot of people. Mast cells are primordial cells that are immune cells that protect us, and they're out there looking for dangerous strangers to kind of protect us. But because our toxic load is so high and because mold is so prevalent, because infections like COVID are prevalent, it's gotten more triggered than it used to be. Like we're seeing in more prevalence. So those mast cells, they're trying to protect us, but they overreact and they spew out prostaglandins and histamines and all these chemicals that make us swollen, inflamed, allergic.

And so that's mast cell activation. It's basically the old school - in medical school we taught about mastocytosis, and that's like a proliferation in the bone marrow of mast cells, that can happen, but it's rare. But what we're seeing today is that mast cells that we already do have either proliferate just in the sense of being more activated or they're just more active, but there's not any issues with how many there are.

And this is a really big deal with mold, but many, many other things can trigger it, even heat or cold or hormones or extremes or lack of sleep. And if you have that muscle activation, your muscles are trying to protect you. But there's so much cytokines in inflammation that you tend to feel sick, have headaches, exhaustion, skin rashes, many, many symptoms, tachycardia, heart rate issues.

So it can happen all over the body. And the way we calm that down is first of all, find the root cause, which is why mold is important. Because if mold's triggering that, the mast cell will never get well until you take care of the mold issue. But the second thing is we do lots of antihistamines, mast cell stabilizers, things like nettles and quercetin and vitamin C are natural. Things like Zyrtec, Zantac, are all prescription and both of those together can be things to stabilize the mast cells.

Jodi Cohen: That's super helpful. Thank you so much. Is there anything that we haven't talked about that you'd like to touch on?

Jill Carnahan: If you're listening and you've either been through something recently or you're in the midst of something, or maybe you're coming down the road and gonna run into something, I'm not unique with my journey or my struggles, but I love to empower listeners, readers everywhere. Just the fact that we do have resilience, that our bodies can overcome, even things that we think we can't. Jodi, you've been through a lot with the loss of your son and then me with cancer and those things, but now we both have a mission and a passion that's greater than ourselves.

Jill Carnahan: And if you can take that and look at the struggle for what it is and not that you're not suffering or not that we don't have deep compassion in that. But look for the teacher, look for the lesson and take that on. Because then you can be a person that's transforming the world because of your suffering. And I wish that we didn't have to suffer, but that's life, right? So if we can kind of take that and transform and use it for good, um, then there's meaning and purpose.

So *readunexpected.com* is the main book site. You can get all kinds of free fun stuff there. You get the book but you can buy it anywhere you find books. My main website is *jillcarnahan.com*. I've got loads of free blogs and things there, and please follow me on Instagram. I've got lots of fun content. *Dr. Jill Carnahan* on Instagram.

Jodi Cohen: And just a plug for Jill. She does such great research. Her blogs are so thoughtful and so detailed, like an amazing, amazing source. Definitely sign up.
Jill Carnahan: Thank you so much.