



Episode 180: The Hidden Elements In Your Home
That Affect Your Mood & Health with Branch
Basics Founder Marilee Nelson

Child: Welcome to my Mommy's podcast.

This podcast is brought to you by Steady MD. I've been using this company for the past year and I love them. Here's how it works. Instead of having a primary doctor that you have to make an appointment to see, wait for hours in the office to visit, you can now have your doctor available whatever you need him or her through your phone. Steady MD has a staff of doctors who are available via call, text or video chat whenever you need them, so they respond quickly and they already know your medical history. You get paired with a single doctor so you can work with them as a long-term partner for your health. They're well versed in lab testing, preventative health, and functional medicine and they're great for those random obscure off-hours medical questions so you don't have to run to urgent care. You can check them out and see if they are right for you by visiting steadymd.com/wm, that's steadymd.com/wm. They do have limited spots available, so I'd check them out quickly if you're interested.

This episode is brought to you by Crunchy Betty. It's summer and where I am it is super hot and humid. I've always made my own deodorant and I still think that's an amazing option. It works well, but lately, I've been so busy that I've been turning to a pre-made natural deodorant, and I am loving it. It's called Kokomo Cream and it smells like a tropical vacation. Think coconut and lime in paradise and it works incredibly well. My husband uses it too, we both love the scent and we love how fresh we stay all day. My favorite part, it's from a small family business and you could only find it right now on Etsy. So, you can find it by going to etsy.com/shop/crunchybetty.

Katie: Hi and welcome to, "The Healthy Moms Podcast." I'm Katie from wellnessmama.com. And today's episode is gonna be helpful to any of you looking to have a more natural environment in your home because I'm here with an expert on that whose gonna really enlighten us. Marilee Nelson is the Founder of The House Doctors, a consulting firm dedicated to cleaner more natural homes, also co-founder of Branch Basics, which is a natural cleaner that I love and use in my own home.

She's also a medicinal cook, a Board Certified Nutritionist, a Certified Bau-Biologist, which is a building biologist, a Certified Bau-Biology Inspector, a building material specialist for healthy homes. She's on the Advisory Board of Documenting Hope, and she has spent nearly 30 years as a Dietary and Environmental Consultant for clients across the country, who are chemically-sensitive, chronically ill, or who are just plain smart and wanna have a natural home. Marilee, welcome and thanks for being here.

Marilee: Oh, thank you. I'm so excited to talk. And it's a privilege to talk with you and your listeners. And I just wanna say with all my heart, if there's anyone out there listening who has a child that has any type of difficulty, a learning difficulty, they're irritable, unmanageable, they're whatever you wanna say, they're just not quite right, or if there's someone out there that can't get pregnant, someone who doesn't feel quite right, someone with chronic illness that they haven't been able to kick over and get healthy, or even anyone in your family that's not just exuberantly healthy, that if they have ears to hear what I have to say, that they'll listen and consider this information.

Katie: Awesome. And I know that it is a very much a passion project for you and that you're very passionate because of your own story. So I think I'd love to start there. Can you take us through your own journey to health through diet and lifestyle and also how you helped your son?

Marilee: Sure. So to start, you know, sometimes we have something that happens to us that has the capacity to wake us up to important truths that are maybe hidden, misunderstood, or not well understood. And maybe things that are so essential that can even make a significant difference in our lives and others' lives, but even on the surface they don't seem significant enough and they're easy to pass by.

And so, the experience that my family has had, several experiences have really turned those events into what I would call blessings. And I would hope that our story inspires you and motivates you, and more than that, empowers you so you can take more charge of your family's health and get a fresh perspective here that cuts really deep into the current healthcare crisis we have in this country because every single day, people are searching the internet because they're on a quest to learn how to be healthy, to create a healthy diet, find safe products, and create a healthy home.

And you're listening to a podcast right now for some reason and we're all blessed to have this access. But so many people get overwhelmed with all the information. They throw up their hands, they don't know what to do. So I'm going to frame the unfolding of my family's journey to health with the fact that all of us, we all can be completely in the dark about something that's impacting us and we don't even have a clue that it makes a difference in our life.

So I'd like you to listen with intention, with a few points in mind. The first is that a change in thought changes everything. And I put that first because how you think, what your perspective is of a situation governs the outcome. And the second is sometimes when you think you really know something, you really don't and that ignorance may be the foundation of continued bondage and suffering. So be ready to let go of your established focus or your established habits, if it's necessary, maybe to have the courage to go against the norm because knowledge is power and true understanding is gonna bring liberty and freedom, and my story shows that.

And the last thing I want you to just to zero in is that our natural healing process has been hijacked by the established norms of the day. The food we eat, the products we buy, and our building materials, they've all been corrupted and logically, we wouldn't even be having this conversation if we were eating real food, using safe products, and building our homes with safe materials. But my story illustrates that ignorance is not bliss and that unlocking the truth can transform your life.

And I wanna say that I can look back, and I did just about everything you can do to create health issues, and make every mistake you can imagine. And so, this talk is not about fear, frustration, or being overwhelmed, it's about having a light open up and being empowered with information. So because my case and my son's case are so extreme, don't get bogged down in that because there were things that I would have missed, had I not had to go to such extremes and these solutions uncovered principles that reveal very doable, proactive, preventative steps that we can all take to guard our family's health.

So with all that said, I can say that from my earliest memories, I was hungry, not just hungry, but ravenous even after eating, I was never satisfied, my mother called me her human garbage disposal, we never had leftovers, it was a family joke. And after I'd eat, I was thinking about food, and the ice cream in the freezer, and the cookies in the pantry. I was a sugarholic to the max. And when I got older, my mother would give me money to go shopping for clothes, well, I'd go out and eat. I was a bottomless pit, literally obsessed with food.

So at the same time, I was just as hungry for information. I loved science, I was captivated. By the time I was in

high school, my friends had a special name for me, it was Dr. Chegly. And my parents bought me a car and put the license plate on the car, and it said, Dr. Cheg. So I was already studying medical books, so I could help out the doctors figure out what the heck was wrong with me and also help my mother because she had cancer.

So when I got to college, I decided to go pre-med and I'd go get my books for the semester, and I'd be so excited that I was gonna be able to learn everything in the books, I just wanted to gobble it up, and put it in my head. And my teachers would give me a key to the lab on Saturdays, I'd go by myself, and just look through microscopes, and I'd be transported in ecstasy by what I was seeing. So let that set the stage for what we're gonna call the opportunities I've had.

My mother was in labor with me for 48 hours. I was bottle-fed and sickly, from the get-go. My father was a chain smoker. My mother was an amazing Southern cook to the ultimate. And she hated bugs so much we always had the can of Raid ready and available along with regular extermination. Well, I had severe allergies, I had snot running down my face all the time, I had asthmatic bronchitis, I had excruciating menstrual cramps later, and I had a low-grade fever that would spike up to about 105 and 106 degrees about every 6 weeks. And that went up through my early 20s, and the doctors called it a fever of unknown origin. They didn't know where it was coming from or what it was, so I was constantly on antibiotic after antibiotic.

And I remember in the sixth grade, I was spending the night with a friend, and her grandmother came in, and she asked us point-blank if we had had our bowel movement that day. She was standing there with this stuff called Dulcolax in her hand. Well, I might as well have been struck, with lightning, I was so shocked. First of all, that she would even mention that. I mean, what was this crazy woman asking? That subject never came up before in conversation at my house that there should be any concern about whether or not anyone had a bowel movement. Well, I proudly told the grandmother, "No, I haven't. And I don't know when the last time I had one, maybe two weeks ago." So I had a tremendous constipation problem. I was living in ignorance, and I was I think I was a bit arrogant.

I continued in this darkness for years. And a month after I married my husband, we were on a weekend trip with some friends on a golf course, which is significant. When suddenly, my high-spiking fever came over me, and I was so weak that I collapsed, and I was taken to a very small country hospital. They packed my head in ice because my fever was over 106, but the highlight of the day was when this very young woman doctor came in with several other doctors, and she told me proudly that she had figured out just exactly what was wrong with me. I mean, after all these years, I'd seen so many doctors and no doctor had a clue. I had given her my history.

So I was on the edge of my bed, so excited that I was finally gonna know what was wrong. And then she said with full assurance, "Well, you have tertiary syphilis." Well, I looked at my husband and he looked at me, and I knew all about syphilis because I'd studied it in high school like everybody did, I think. And I laughed, and I told her, "For one thing, that I'd just gotten married and I never had, had sex before a month ago, so it couldn't be tertiary syphilis." And with that, she looked around at the other team of doctors there, and they said, "You need to see this group of doctors in Houston, and they'll surely figure this out."

So that's where I was, at age 23, I'd had many bizarre diagnoses, by the way, and that was one of the most. But I was in the dark, I was still thinking the medical world had all the answers, and I was without a clue, as to the real reason why I was so sick and weak, and that it took every bit of strength that I could muster to lift my hands to my mouth. I literally willed myself to function. So I was very excited at this time because I was going

to have exploratory surgery. Literally, I felt like I was going to a party or maybe even to my own wedding. I was so excited because I had 11 of the best doctors from the Houston Medical Center on my case and I knew for sure they were gonna figure out what was wrong with me and fix it. That was my perspective.

So after surgery, my internist walked in and said, "Marilee, I'm really sorry, you're never gonna be able to have children. You have extensive endometriosis. You need to go on dialysis and you will need to have a kidney transplant." Well, I mean, I don't know what happened to me. Miraculously, instead of being filled with fear, this very small still voice of truth rose up, and it was awakened in me, and I looked at him, and I said with so much respect because I literally idolized this doctor. I said with respect, "I'm just so glad that you are not God. What if in 10, 5, or even a couple of years there is a medical discovery that I wouldn't need a transplant, I can't be subject to the limitations of what the medical world has to offer me at this point in time. I don't wanna lose a kidney. I know there's another way."

Well, I felt it in my heart, a deep calm, no fear or doubt, just an absolute trust in God, and that I would know, I knew I was gonna have a baby, and I would get well. I literally had a shifting consciousness that gave me confidence, and courage, and I didn't look back. So I am sure my doctor thought I was out of my mind or maybe hallucinating on the Morphine that I was on for pain, but this single event changed the course of my life. I was at a crossroad, a fork in the road, was I going to make a decision based on fear because of a bleak medical prognosis, given to me, by top human experts that I trusted and respected or was I gonna go down a road less traveled?

Well, soon after I got out of the hospital, I continued on the medication that I was already on, and I was madly researching, and looking for answers. Anything outside of medicine was completely off my radar. It was just some pill I needed to find. But my condition continued to deteriorate. And in the midst of that, oh my gosh, my husband and I bought a brand new condominium, I can still smell the building materials. And then, another bizarre thing on a routine check-up with my gynecologist who had actually been on the team of 11 doctors when I had surgery, he discovered I was pregnant. And he immediately assumed I would choose to terminate, and he warned I would never be able to carry the baby to full-term.

But suddenly it hit me again, this flash of, I guess, I'll call it enlightenment. I was instantly so committed to doing whatever was needed for my baby, that I didn't even think about what it is he was saying. So to everyone's shock, I said, "I would not have an abortion." I stopped all prescription medications for my kidney situation. I stopped all over-the-counter medications for all my allergies. And the biggest deal that I still can't make sense of is that I decided to quit eating sugar. Now where that came from, I don't know because I was the hardest, die-hard sugar addict I had ever known. And literally had no frame of reference or thought that what I ate had anything to do with the way I felt. I went cold turkey off of all that. And the only thing I can think of is I must have read somewhere that it would be helpful if I didn't eat sugar for my baby.

So anyway, my pregnancy was bizarre. I already felt so bad that I just continued to feel so bad. So I didn't feel worse, I just felt just as bad as I always did. But to get ready for our baby, close to my due date, we had our home exterminated because, of course, you don't want bugs around your baby. And then I, sick as ever, but determined as ever, decided to paint his bedroom myself. So I'd paint a little then I'd be on the floor resting. Then I get up and paint a little. Well I immediately went into labor, and the next day, my son Douglas was born three weeks premature. My fever of unknown origin kicked in, and I had no clue that pesticides and paint could possibly be harmful to people, much less unborn babies. And I wasn't using one of these non-toxic paints, either, of course. I was using a nice oil-based paint, smelled very strong.

So after that fact, I now connect these two actions using pesticides and painting as reasons why I went into early labor and my fever kicked in, and why my precious child had so many issues. And remember, I'm bringing him home to a newly-painted nursery, by the way. Well, our child Douglas was born, and I was in major love, I had refused to have any medication during delivery, I had taken the Lamaze Course, and I wanted to do everything I could to not harm him. I wanted to breastfeed. I didn't want him to have any formula, and I was horrified because the doctors wouldn't let me have him since I had this fever.

And then after begging and pleading with my doctors and maybe I'll say demanding they waived the restriction, as I always had a fever that my doctors knew it. I always had a fever but it was just a little higher than usual. And my baby would stop crying only when I would hold and breastfeed him. The nurses kept telling me that they couldn't get him to stop when he was in the...stop crying when he was back at the Nursery.

And so after 10 days in the hospital, we went home and we went through a very difficult 18 months. And after about six months of screaming and crying, extreme irritability day and night, unless being fed and held, a friend told me about the Feingold diet and children's behavior. Well, I was desperate. So I read the book and threw out all the prohibited foods, foods with artificial sweeteners, colors, flavorings, preservatives, foods containing salicylates and those are...that's what plants use as a natural pesticide to protect themselves.

And overnight, we saw changes. After three days, he was content to be put down and would actually play by himself and smile. And he was way behind developmentally, but he had made very rapid strides after this happened, and he began to catch up, and he even surpassed the norm, and he started walking at nine months, and he was unstoppable. But for some reason, and this is gonna be really important for later in the story, but for some reason, he was still unable to sleep. And this misery at night persisted until he was 18 months old. And I refused to just let him cry as many and everyone advised because I just sensed something was very wrong.

Well, unfortunately, I did not experience any change in my condition with the Feingold diet and I continued to go downhill. And I got so bad that I had to begin taking medication for my kidneys again. So I had to stop breastfeeding. And unfortunately, after starting formula, Douglas regressed rapidly and needed to be held day and night once again. Well, I was drowning. And I was in serious condition. And yet, still, I had the hope that I'd be led to just the right prescription bottle because I'd be reading books while I was nursing him. I just read, read, read. But there was no internet then.

And so it's hard to even fathom that limitation, but an article from a magazine, "The Saturday Evening Post," was brought to my attention by my sister. And it was about a doctor in Boston that was using food as medicine. What? Well, this shows how desperate I was. I immediately called the hospital he was associated with and to cut this short, I got a prescription for a medicinal diet for my particular condition. I tossed out just about everything in my pantry. I continued my medications. But from the first meal, I was no longer thinking about or craving food all the time. I started to gain strength really, really fast. And I was being transformed. I just started pouring in only real organic food prepared as a prescription for my condition. And I started eating normal portions because I was satisfied.

And within a very short time, I was able to get off all medication and I have never had the need to take even one prescription medication or over-the-counter medication since. And my kidney issues, fever of unknown

origin, severe cramps, endometriosis, pollen allergies all resolved with just a change in diet. No vitamins, no supplements, and I learned that every food has a pharmacological action and acts specifically on certain organs. So that was fascinating to me. For instance, sugar is especially damaging to the kidneys and probably the fact that I stopped that sugar cold turkey intuitively as soon as I learned I was pregnant was significant for my kidney function as well.

So once I was able to get off my medication, I started breastfeeding again. And oh my, gosh, an absolutely miraculous transformation occurred, about three days later when what I call my truly real child emerged with the most beautiful calm disposition, no signs of agitation whatsoever at night, day, no irritability, he was a happy normal child who slept like a baby through the night. Well, after the dust settled, I was in utter disbelief. I had been totally committed to conventional medicine. I wanted to be a doctor and I felt like all the answers were in that arena. I had now been pushed out of that box to think differently. And I realized we had been poisoned. I mean, all my life I had been poisoned.

And how was it in this civilized country, we were actually putting chemicals in our food supply, as if they belong there, that poisonous, and alter our brains, and bodies, and how was this fact, not front-page news? Well, I wanted to shout it from the rooftops, "How is it that intelligent people, I mean, who actually have heard of this and do know, will even continue to choose to poison themselves? I mean, what are we doing? What are we thinking? Better yet, why aren't we thinking?"

I wanted to write a book, I was going to. I said, "I'm gonna name it Why Didn't Someone Tell Me?" I mean, I had ears to hear that were as big as elephants and I was on a mad search for help but this never had, come into, my radar. And I wanted to find a way to give people the opportunity to at least have this information presented so they can make the choice instead of the continual suffering. So they wouldn't have to say one day what I was saying, "Well, why didn't someone tell me this?" So at that point, I was very focused on the potential of the liberating effect of eating organic real food. The idea that harmful chemicals elsewhere could also greatly impact health was as remote to me as when I could only see a medicine bottle as an answer.

So I ended up changing my career. I studied food as medicine. I became a medicinal cook. And I was given the amazing opportunity to be in-charge of the kitchen in a health resort right on the white beach of Montego Bay, Jamaica. We had been living in Houston, Texas, where the air is polluted to this clean, invigorating ocean air. Overnight, I noticed an upgrade in my sleeping and my physical stamina, and I considered myself to be really feeling good, but this was a new level. So we were preparing organic food picked fresh from gardens every day, we were getting fresh mountain spring water that cascaded down from a waterfall in the mountains of Jamaica for our water that supply every day. Fresh fish when we put it on the menu.

And the most spectacular awakening I had, though, while I was in Jamaica, was that intelligence is just not what we think it is. For instance, I'm gonna say if you think you have a child with a learning disability, well, there may be more to that than you might think. And my desire to understand this was to become a new focus because, all of a sudden, my son age five, was dividing, multiplying, adding, and subtracting spontaneously. I mean what? I had taught him to read, and he could do simple math like one plus one and that kind of thing, but this came out of nowhere.

One day I was standing in the kitchen with my Jamaican staff, and he walks in, and he announces to the group, "Hey mom, there are 70 toes in here." I said, "Oh, really?" And it didn't sink in but when he said, "Oh mom, now there are 50 toes." Well, my ears perked up because I realized there had been seven people in the

kitchen and two had walked out, and I said, "What do you mean?" and the kitchen staff were dumbfounded and they started playing games with him, some running in and out of the kitchen several times, and asking him, "Now, how many toes are in here?" And he'd immediately answer the questions. His mind was operating at a different level he was not taught how to do this. Also, his coordination and athletic ability also improved. The entire family was enjoying enhanced health and wellbeing. We were experiencing what I started to call the power of pure. Pure outdoor air plus yes, pure food, pure water, and all of that was a factor.

And just as an aside before I move on here, there are many studies out now especially from Harvard that show how the quality of air affects IQ. So you say that you had your IQ tested at age five, and it was so and so. Well, that is not a fixed number, it can fluctuate. So when it was time for me to move back to the States, you can be sure I was investigating air quality. So I got about a ream, of documents, 500 pages at least, no joke, from the EPA with studies around the U.S. concerning water and air quality.

And I found that at that time, the 50-mile radius around a little town called Hunt, Texas was purported to have the cleanest air in the country. There was no agriculture, there was no industry, there was no big city, and the water from the water table, and from the wells, and the wells in the area were also supposed to be some of the cleanest in the nation. It was the center for a lot of children's camps and it actually looked a lot liked the hill country of Jamaica. We ended up moving there.

But at age 10, my son Douglas was exposed to a concoction of pesticides. The doctor called it a catastrophic chemical exposure. So in one day, he went from being calm, stable, obedient, athletic, and brilliant to agitated, unpredictable, uncoordinated, and unable to spell even simple three-letter words or do simple math. We ended up after several emergency room and doctors visits, taking him to a specialist, the doctor that treats Gulf War Syndrome Veterans and other poisoning victims.

And when I heard his words, "Your son will never recover. He's had so much neurological and brain damage he will be like a bubble boy for the rest of his life because his immune system can no longer process the everyday chemicals we all come into contact with. You will have to give him medication and create a special room for him that has no immune stressors, and that will be where he lives." And then, last but not least, he dropped the cancer bomb. He said, "He will have cancer in 10 years."

Well, I had the same response I'd had to my surgeon and my gynecologist. I respected this doctor and his work, but I was again at medical crossroad, where there was no acceptable answer, no hope of recovery, I refused to accept that verdict, and I told the doctor respectfully, "I'm just so glad you're not God because I know my son's going to recover." And I didn't mean just get better I meant he was gonna recover.

Well, I was very naive and I really didn't understand what we were up against. Looking back, the switch to diet and that change for me was really relatively very quick. I didn't have any concept of the fact that our seven-year experience seemed like, being, many times in a hopeless hell with a son that was a captive to his own brain and body but that this experience would one day reveal critical, crucial, and practical keys for releasing him and others with chronic illness from their prisons.

So the roadblocks and barriers many times seemed insurmountable. We took him home. And we decided that we would make our entire home a sanctuary, so he was not isolated to one room. We had no idea what it really meant. It was a learning experience, to say the least. We followed the doctor's recommendations. We took out all the carpet, we had no carpet. We took out all upholstered furniture, drapes, books, papers. We

were left with concrete floors, two organic beds, we had to get those, a solid wood table, and chairs, and metal wire bins for clothes.

But he kept reacting, he was unpredictable. One minute he would be bouncing off the walls as if he were on some sort of crack drug or he might be reduced to extreme lethargy, unable to function or lift his head off a pillow. He'd start crying, sobbing, or he'd go into deep depression. He might snap out of it and become so wired, that he couldn't sleep. He'd fall down on the floor with blinding headaches, he'd have excruciating sensitivity, to sound, and even though we had been told that he was reacting to very small amounts of chemicals this really wasn't immediately apparent to us. It didn't become clear until we understood enough to create a safe place for him where he wasn't reacting. But this was gonna take some time.

So I was giving Douglas 23 shots a day and other medications. And even with all the changes we did, his condition continued to get worse. He kept having reactions in the house. I kept throwing things out, and that was easy. I threw out products, cleaning products, body care products, pencils, books, I mean, it was truly minimalistic. The problem was I think, well, I didn't know at that time, but it was what we're gonna find to put back in the house.

So we found that he felt much better outside, duh. The longer he would be out, the more we would see some shift or improvement. So we decided to sleep outside as much as we could. No tent but out in the open sky, he reacted to tents. So we made a family game of it, it really was fun. And all of sudden, he was getting better which was very encouraging. He begged us to take him off his medications and shots because he said they weren't helping him, and they made him feel worse. Well, we stopped them. And again, he had tangible improvement.

I kept reading every book I could get a hold of about pesticide poisonings, exposures to chemicals, chemical sensitivity. I studied Dr. Jeffrey Bland's work on the phases of detoxification, intestinal permeability, leaky gut, circadian rhythms, genetic deviations, etc. So many arenas of, "Food as Medicine," from raw foods, water fasting, Paleo-type diets, ketogenic diets. I went through the gamut. And I made call after call to people who have been chemically-injured looking for anyone with experience or a success, but no one ever gave me the answer I wanted, "Yes. I overcame this and your son can, too." Well, this made me even more determined.

The problem was that he was better and but he couldn't be in our house without reacting. So there was a network of people. And the doctor that we had seen had discovered a product that many of his patients were using that would decontaminate chemicals. So it decontaminated the houses, it neutralized and broke down pesticides, petroleum products, cleaning product residues, and other contaminations. It was also being used for severe burns. It was so easy on the skin. You just put the concentrate on whatever part of the skin was burned, you'd hold it on the burned part in there until it stopped hurting, and there'd be no trace of the burn.

And we used that many times. It was amazing. It was being used on bee stings and other bites because the negative charge of the formula would pull the positively-charged poison out of the skin. It sounded like some kind of snake oil. But I was desperate. And I spoke to numerous chemically-injured people that told me that it was the only product they could get near. So we ended up washing down our ceilings, walls, and floor, and everything in the house with the product that could be washed. Washed all our clothes and it was incredible. Douglas could be in the house. And not only that, he could be in the house when that product was being used and could use it on his body with no reaction. It was a major milestone.

But there was a caveat. And before I go forward with that, I wanna say that we just don't pay attention to clues we are given and we just go bounding forward. So the caveat here was that if he stayed in the house a long time, he would start noticing something bothering him, as he would say it, and he was still having problems sleeping in the house. And I could have just said, "Oh, you're okay. We fixed the problem." And just pushed him but I had a déjà vu moment when I recalled how much better he got from when he was a baby when I switched to the Feingold diet, but he still couldn't sleep because there was more to the story. And I knew there was more to this story, more that I had to discover.

So I had heard about this German study of Baubiologie meaning Building Biology. And we, that's my husband and I both decided to study this. And we learned how the Germans linked health and recovery from any illness to the home environment, that the home environment should be a safe haven, with the bedroom being the most important room in the house. The house needed to be clear of toxins, mold, and EMFs, EMFs? What was that? There were no cell phones, no Wi-Fi, no personal computers, no iPads, oh my gosh there were only landlines. And at that time though, the Germans considered the AC electric field to be the main inhibitor of recovery from serious illness.

At night, the body is supposed to rest, recover, and rejuvenate from the day's events. But if the body is resting in a chemical soup plus high electromagnetic fields, then the body is not able to heal. Well, when we tested Douglas in his bed for body voltage, he had 25,000 millivolts in his body. And to put that in perspective, it takes only one millivolt to operate a pacemaker. The readings were outrageous. And this was due to the fact we're in a very old house. It had old knob-and-tube wiring, which also creates high AC magnetic fields.

And so, we had that all fixed. And we were introduced to the world that electromagnetic fields can affect the body. And we learned about other aspects of the electromagnetic spectrum such as making sure our son didn't spend time next to running motors such as the refrigerator, television, etc., and that was to reduce his exposure to AC magnetic fields. We learned to not store steel items under the bed which we weren't. And also, for instance, don't sleep over a garage, with a car in it because of DC magnetic fields. We learned that synthetic fabrics in a home create DC electric fields.

So there was a whole new world opening up. And we made sure that he played even more outside in the sunshine, and fresh air, and grounded as much as possible. I also started studying building materials. And later, building science, which is the study of how materials are put together to build a home so that they don't promote mold growth, indoor air quality issues, and other problems. So we realized we had found a critical piece of the puzzle as there was a turn for the better in his condition after these changes were made. But I have to say, although he was so much better, he still was having some trouble staying in the house for long periods of time and his sleep still just wasn't right.

So, and we're almost finished here. One night as was I lying on the cot looking at the stars trying to figure out what the heck we were missing, he was sleeping great outside, he was feeling good, but something inside was disturbing him especially his sleep. I kept thinking about the Baubiologie quote that I learned and that's this, "At night, the body is supposed to rest, recover, and rejuvenate from the day's events, but if the body is resting in high electromagnetic fields or a chemical soup, or mold, or some contamination, then the body is not able to heal." Well, I started going through the checklist. We'd fixed the EMF issues, I'd stripped the house. We had decontaminated the house with a new formula. What had I forgotten?

And in a flash, looking up at those stars, I remembered that although I had removed all the cleaning and

personal care products from the house, I had decided to keep my favorite ones in one box in a closet. My favorite perfumes, even one from my high school Chantilly, I'll never forget that skin care, cleaning products, and I just didn't see how that would matter, after all, they were closed up in a box and I thought I'd get them out when he was better. Well, I thought I was insane to even be thinking what I was thinking, but regardless, I got up in the middle of the night, and I took that box out of the house, and I did not tell anyone I had done that.

The next day, Douglas came into the house, and he stayed and stayed, and I noticed he wasn't getting up and going out for a while like he usually did. And after a while, he said, "Mom, what did you do? There is something different." Well, I almost dropped the pot that I was holding food I was cooking. I was standing there in awe and I thought to myself, "Oh, my gosh, can it be that somehow, he is so sensitive that he could not stay in the house until I finally removed that one box?" So I said to him, "Well, I did do something. Would you be willing to try to sleep in here tonight?" And he said, "Okay. Yes, if you'll go outside with me the minute it didn't work." So I said, "Okay."

So we spent the night in the house and he was fine. And I know that sounds insane that the one box with a few products in a closet was preventing him from being in the house, but this discovery was key to his recovery and has been fundamental to many of my clients' recoveries as well. And let me give you an example to help you understand why this was an issue for him and for your family. Just think of the last time you walked down the grocery store aisle where the cleaning products and the pesticides are located, they are not only closed, but they're also sealed and yet, most people can smell them as you walk down that aisle in the store. The chemicals you smell are VOCs, volatile organic compounds, and they are escaping from their containers in parts per million, parts per billion, or even parts per trillion.

So all the products in your home, under your sinks, and in your cabinets, and in your bathrooms do the same thing their emissions create a low-level chemical soup that spreads throughout your home that everyone in your family has to constantly detoxify. So the body never really has a chance to deeply detoxify and repair at night as it is designed to do when it is sleeping. And if you consider what the science of epigenetics is now saying, "Exposure to even small amounts of these chemicals is significant. It can turn genes off and on," and what happened next in our household proves this point.

After we got the house cleaned up to where he didn't react and where he could sleep, this myth that we had established what I call a baseline. And that means that Douglas was in a state of being what is called "unmasked and unreactive." In other words, there weren't so many things in there that his behavior and all, was masked, we couldn't tell what he was reacting to, everything was gone. So now, he became our own little canary, like the canaries that were released into the coal mines that would die when they were exposed to poisonous gases. Their death warned the miners to not go any farther if it was not safe. Well, Douglas' reactions were going to now help define what was really safe and what was not.

And this part is very important to hear. We could now see the shifts in his mental, and physical, and behavioral function were clearly linked to specific exposures. The impact of these chemicals on his mood, behavior, and learning ability was eye-opening. If he had an unextended exposure, he would revert back to a reactive state. But he'd start recovering once the offender was removed. He had symptoms resembling ADD, ADHD, hyperactivity, hypoactivity, autistic-type symptoms, depression, fits of rage, anger, shaking, inability to concentrate, distractibility, crying for no apparent reason, he'd get very wired. And again, since he was no longer masked, we could isolate and tell exactly what he was reacting to. And when we'd removed it, he had a

pretty quick recovery.

For example, we discovered that if we went to Walmart or a store like that, we would have to shower, and wash our hair, change clothes before coming in or he might fall down in a heap with a blinding headache or he might even have his lymph nodes just explode in his neck where you could see them. And we were fortunate because we had a little cottage next door where we could shower, wash our hair, and change clothes in. So after we discovered that, that's what we would always do before we would come back in the house.

I also discovered that most of the non-toxic products available at that time that I tried to bring in the house caused him to react. I learned that most of them had harmful VOCs. And I kept having trouble when we were trying to homeschool, he would go blank, and stare, and start to fall asleep. Finally, I discovered why. I had not outgassed his number two pencil enough. I had to put everything in the sun before it came into our house until there was no smell. The pencil just needed more treatment. After that, he was alert when we homeschooled. Well, I wanted more. I wanted to discover the key that was necessary for real full recovery not just keeping him comfortable in his bubble since the generally accepted thought was, that people don't really fully recover from this.

So I tried to get a picture in my mind of what we were trying to achieve, how would we be able to have complete healing? So I started to liken complete healing from having a damaged immune system to healing from a wound inflicted by a knife on the skin. If you take a knife every day and re-irritate the wound, the cut will just not heal. But if you do not cut the skin again or not as extensively, it will naturally continue to repair because our bodies are marvelously designed to mend and restore automatically when they are given the right tools, and the right circumstances, and when we're not putting things on them to inhibit that healing.

So I reasoned that since the chemically-sensitive person's damaged detox system is incapable of neutralizing and metabolizing the chemicals found in everyday life that to heal it, we had to avoid it as any exposure as much as possible. I figured these many poisonings were just tantamount to re-cutting an injury. So I felt like we were fighting for his life and we had to protect his right to what we all take for granted. I wanted him to be able to go out into the world where everyone else does and not be sick. And we knew that for that to happen, that we could not, that's my husband and I, we could not knowingly compromise or dismiss something just because it was inconvenient to us like, "Are we gonna skip changing clothes, washing our hair, taking a shower since we went out because we don't want to?" No, we couldn't do that because it would be at his expense, and it would drive his misery, and, of course, we would be drawn right down with him.

So here we were, we've made amazing progress. And I mean, I was quite excited but these unintended exposures where we'd make a mistake like come in and something was, you know, would bother him, it always made him feel like he had just slid down to the bottom of the mountain that he had just climbed. And he'd be so discouraged about the fact that he could not go to the school. He was feeling better, and he thought, "I need to go to school." But bam, he was reacting every time, you know, we push the limit. So he just wasn't healed enough. And his loneliness and his desire for a normal life, it was palpable and it was breaking my heart. And I realized that my son's despair and depression was absolutely a huge immune stressor and it can be worse than a chemical exposure. And I knew that if he didn't get a sense of hope and confidence, that it wasn't gonna matter what we did that we were not gonna win this battle.

So we started talking about our thought pantry. We compared toxic chemicals and food with chemicals to toxic thoughts. We had removed toxic products and foods and replaced them with real food and safe products

that were not harmful. So we worked on removing fear and replacing it with hope and confidence, and focusing on the miraculous progress we had made. So he concentrated on pouring in the good thoughts and overcoming every negative one by replacing it with good. And he had a very tangible turning point and gained what I'll call a real spiritual sense of purpose and direction and that was a huge milestone because he was now a participant in his own recovery.

So after a total of seven years, he was ready to go out into the world. And my loving, calm, stable, smart child was back with us emerged and flourishing. He not only fully recovered, which was nothing short of incredible, but he went to the Naval Academy, he went into Naval Air Intelligence, he flew over 200 missions over Iraq and Afghanistan. He became a Naval Aviation Intelligence Officer in Japan and you cannot be sick and do that. So my husband and I noticed that we were both enjoying unbelievable stamina and energy, life in a home without exposure to harmful chemicals and EMFs, eating real food was beneficial to us as well.

I mean, I started to feel like I had had the privilege of being engaged in a very important scientific experiment. I was enabled to see the clear impact that harmful chemicals and EMFs can have on the body, behavior, and the mind. And I started to have this very deep conviction that these everyday chemicals found in our environment and diet that we had to remove from our home in order for him to heal and for me to heal were, in fact, undermining everyone's health on a subtle and sometimes not so subtle levels that were all unintentionally living in a veritable chemical soup. And this would later be proven and borne out with my work with clients, both young and old.

So I'm gonna take an aside here because I want you to connect the dots from what I saw in my own family and from what I can say I've seen in many clients. We all know that physical and mental abuse can twist and distort a person's character. We find out that a murderer or a sex offender was once probably mistreated or neglected as a child, and that's one of the reasons that they act the way they do. Well, I am here to tell you that these chemicals in your child's everyday favorite foods and the products being used in homes are like crack drugs. And if your child cannot metabolize it fully, they are abusing your child and what you're seeing acting out is not who they really are. Their personalities, and health, and wellbeing are being compromised, and sadly, being shaped by those factors.

And be sure to know if you were to pull them all off this, they'll be much easier to handle or you won't even have to handle them, and they won't be emotionally crippled because of substance abuse. It's well known that giving a child or an adult alcohol or drugs takes away their inhibitions and corrupts volition. And I'll tell you innately, kids know what's right and wrong, but these chemicals are taking away many of our child's natural inhibitions and ability to control themselves. And your child might not react emotionally, but only with physical symptoms like eczema, allergies, sore throats, earaches, infections.

The thrust of what I'm saying is, at the very least, I invite you to think about what I've said to consider removing these exposures in their food, to consider removing products in your home that are harmful, and then clearly see if you need to pursue other avenues for healing that you might have. So if you need more encouragement, now cutting-edge scientific studies are validating what we experience and that they are stating that exposures to these chemicals and EMFs in our homes are directly linked to the exponential price in chronic illness in America.

Neurological diseases like MS, ALS, Alzheimer's, Parkinson's, are skyrocketing. One in two men, one in three women, get cancer. Cancer is the number one killer of children after accidents. We are not winning the war

against cancer. And one in two children in the U.S.A. now, are estimated to have some sort of chronic issue. We are losing our children and we must all acknowledge that we have a healthcare crisis today and this is a cry for change. What we're doing is not working. And with these types of statistics, everyone listening to this will be impacted or very impacted by someone close to him or her. But the good news is, is there's something you can do about it. This is an opportunity. And since it takes time for this scientific research to filter down, be understood, and applied by the medical community in mainstream America, needless suffering will occur until it's finally incorporated and utilized.

So, the thing is, is we can turn around this American healthcare crisis family-by-family. And this is just basically my passion. I have a raging passion to create a movement in this country to reverse this, one family at a time. People can take proactive control of their health, and stand up, and make right choices for their family. I'm gonna end with there's a poem by Robert Frost that I love, and it says, "Two roads diverged in a wood and I took the one less traveled by. And that has made all the difference." So that's my story.

Katie: I love that. And I feel like we're in such alignment on wanting to just empower families to create small changes that add up to really big changes because I think you're right. I think not only is that going to fix things, I think it's the only thing that can fix things, is because we have to bring it back down to the family level. And I love that your story brings hope in two major ways. One was that your son not just was able to mitigate his symptoms he fully recovered and was able to go back out into the world. But also, it sounds like you didn't even have to like move into a new house or you stayed outside for a while but you were able to deal with everything eventually in your home and to make it better in your own home, and that's I think a lot of hope for a lot of people.

And hopefully a lot of people listening are not dealing with an advanced chemical sensitivity, but like you explained, it really does pour over into all aspects of life, whether it's behavioral or physical symptoms like eczema just really across the board. And I wanna get a little bit deeper on the practical level. So you've been doing this for a really long time and you've helped thousands of people, what are some of the biggest common problems that you're seeing in modern homes?

Marilee: Well, of course, number one and no matter what the age of the home, one of the biggest problems is the air quality from the chemical soup created by products brought into the home and the EMF pollution. So the great thing is that acting on this now, you don't have to go through seven years of trying to figure it out. You can immediately reduce your toxic load. And when I work with my clients, I always start with this chemical soup because it's doable, you're not having to get your child to eat green vegetables, you're just removing and the first thing I say, get the pesticides out of the house, not in the garage, get them gone.

And then you take your toxic cleaning products out and toxic laundry. And I go through a sequence. I do cleaning products, laundry products then, body care, scented products like candles, scented stationery, plastics, phthalates, etc. And, you know, I tell people, "You can do this step-by-step as you're able because everything you do is going to be helpful. You're taking that much little bit of load off." Some people wanna do it in one fell swoop. They just get a box, and go through their house, and take out scented products and products that have those VOCs.

So I also right away will hit the low-hanging fruit with the electromagnetic field situation because this has now become a big problem. Wi-Fi ideally, should not be in our homes. Our homes should be our sanctuary, a safe haven. We need break from being out in the Wi-Fi all day especially our children. It's affecting their brains,

their ability to think, to multi-task, to concentrate, and their nervous system. You can have your computers, you can have your devices but hardwire them, hardwire your security systems, hardwire your HVAC systems. Everybody is going on these smart systems, go hardwire.

And if someone is adamant, then I tell them to read the studies and if they still won't budge, at least kill it, turn it off at night, you can get a little switch and turn your Wi-Fi off when the family sleeps. That is absolutely imperative. We're just paying a very high price now for this convenience. And I know this from the EMF canaries that I worked with, and I mean, I know, I have people that live outside because they can't go in a building. And you have to work to get them healthy enough so they can go in. And we should take a cue from the Europeans, Wi-Fi is already being banned in schools, libraries, etc. and we are foolish not to heed these warnings.

So then, I'll hit the next easy target, is lighting. I recommend that people remove all the CFLs. Those have high-frequency fields, and they have been shown to cause epileptic seizures. I have them remove fluorescent lights and ideally all LEDs. Now, LEDs are not a problem, in terms of high-frequency fields if they don't have a transformer, but they do emit blue light and they contribute to the dysregulation of our body clocks. I recommend absolutely no microwave use for any reason. Not only does it put out a very high frequency, it goes all through your house. It's not just right in front of you, and it explodes the cell wall of the vegetables and fruits that you're eating, and it makes them unrecognizable by the body.

I always ask about smart meters. We need to stand up and opt-out. Many states have an opt-out option and if they don't demand it...and if they don't, if your state doesn't, demand that they do. California is a leader in the country. And years ago with my clients when this was all coming to the forefront and smart meters were being put out in California, the citizens stood up to PG&E and they won the right to choose and this has kind of given us and the rest of the country a benchmark. And so, a lot of people that I work with don't even know they have a smart meter or don't even know what it is but that's an important point, too.

So once you get your house, you know, all the products out and all, and you're creating that safe haven then we, in modern homes, you start looking at the home itself. And before I go into that, I will say no matter where you are, what home you're in, etc. if a client calls me, there's always something to do, you know, you don't ever wanna feel, "I'm trapped in my house." There are things to do.

So the first thing we're gonna look at is that's really important is to check into the pesticide history of your home. A common problem is that the air in your house might be contaminated with pesticides. If there's been a history of use in there. And thankfully, there are ways to clean that up. And the pesticides are a major underminer of health and it's called "a universal sensitizer." For instance, like my son, when he was chemically-injured by pesticides, he became sensitive to everything, that's what it means a universal sensitizer. You've heard of some people that are...they're sensitive to fragrance, but they're not sensitive to other things, etc. Fragrance can make people sensitive, but it's not a universal sensitizer.

So the next thing you would do in that case too is you would find out what year your house was built. You would try to find out what type of termiticide was used when it was being built. And if you don't know, you call a local exterminator, and you say, "Okay. I have a house. It was built in 1969. Can you tell me how the houses that were being built at that time were treated for termites?" And so usually the local exterminator can tell you that. So then the next thing you do is you look at what pesticides you have, you look at the construction of your home, is it a slab? Is it pier and beam? Does it have a crawl space? Because all of those

things are considerations when you're going to, employ mitigation strategies. So I'm going to tell you that there are many different ways you can reduce that level or even get rid of it. So, you know, I wanna encourage you in that.

The next thing I consider very important in modern homes is formaldehyde. And formaldehyde is the other universal sensitizer just like pesticides. Usually, a person that's extremely chemically-sensitive has either been affected by building materials or which would be a lot of times formaldehyde or pesticides. You look at the age of the home, if it was built recently or if it's been remodeled, there's likely to be higher levels. OSB, that's a sheathing material, plywood, manufactured woods, pressed woods, engineered wood floors, and laminates have formaldehyde. Cabinets can be a notorious source.

But there's very inexpensive testing available from a company called Advanced Chemical Sensors. And I like to ask for the aldehyde test which gives the formaldehyde plus all the aldehydes which are other chemicals that are issues. And you do a 40-hour test to get the sensitivity and you can get very, very good results. I mean, very sensitive results even down to 0.003 parts per million. So if you have formaldehyde, there are steps you can take too, to make that better.

So another thing you wanna look at is you wanna ask in terms of the year the house was built, what kind of insulation does the house have? Some insulations are quite a problem. And now with the energy efficiency issue, we have a lot of foam insulations that have a very toxic fire retardant in them. And so, the answer to that is you get yourself a HEPA vacuum because these fire retardants are chemicals that ride on dust. And so, you regularly use your HEPA vacuum and you reduce dust. And a lot of people will get an air purifier too with the HEPA filter in it.

There are so many things you can look at in a house, and there are so many fixes, and there are so many answers. So, you know, I always like to be encouraging to people. We were living in a very old home, and when we were trying to recover Douglas, and it had a lot of issues. It had pesticide contamination, and we had a lot of burning in the area so we had a lot of smoke that we had to deal with. So anyway, there's always help. You can always make it better.

Katie: Yeah. I think that's such the important point to remember because it definitely can seem overwhelming. And I remember thinking the same thing when I first started learning about all of this. But there are ways to mitigate it and it doesn't...it's not actually that complicated once you get started but don't necessarily try to tackle every single thing in one day unless you have a serious medical reason to do that.

This podcast is brought to you by Steady MD. I've been using this company for the past year and I love them. Here's how it works. Instead of having a primary doctor that you have to make an appointment to see, wait for hours in the office to visit, you can now have your doctor available whatever you need him or her through your phone. Steady MD has a staff of doctors who are available via call, text or video chat whenever you need them, so they respond quickly and they already know your medical history. You get paired with a single doctor so you can work with them as a long-term partner for your health. They're well versed in lab testing, preventative health, and functional medicine and they're great for those random obscure off-hours medical questions so you don't have to run to urgent care. You can check them out and see if they are right for you by visiting steadymd.com/wm, that's steadymd.com/wm. They do have limited spots available, so I'd check them out quickly if you're interested.

This episode is brought to you by Crunchy Betty. It's summer and where I am, it is super hot and humid. I've always made my own deodorant and I still think that's an amazing option. It works well, but lately, I've been so busy that I've been turning to a pre-made natural deodorant, and I am loving it. It's called Kokomo Cream and it smells like a tropical vacation. Think coconut and lime in paradise and it works incredibly well. My husband uses it too, we both love the scent and we love how fresh we stay all day. My favorite part, it's from a small family business and you could only find it right now on Etsy. So, you can find it by going to etsy.com/shop/crunchybetty.

Katie: And like you said, I, 100% echo, like if we all just make small baby steps continually, we're gonna go so far with fixing this problem. And I'd love if you could kind of talk about a little bit of a two-pronged approach. So, on the one hand, in a perfect world, if you were gonna build a house that was as non-toxic as possible starting from the ground up, what would that look like? And what things would you consider? And what would be different? But then, probably applicable to more of us is if you already have an existing home, what would be the biggest bang for your buck things to start right away? I know you mentioned the pesticides, which are huge, and plastics, which I have written about and taken some heat for as well but I, 100% back you on that, that there is no need to have plastics in your home. But I'd love if you could kind of tackle those together.

Marilee: Sure. Well, a non-toxic healthy home would be a home, where the air quality is not impacted by the materials used, and it would be wired properly so that exposure to EMFs are minimized. And this would be achieved by using what I call an integrated system and that would merge Building Biology with Building Science. Building Biology considers the materials used and Building Science considers how the materials are put together to create that healthy building envelope.

So if you wanna build a non-toxic home from the ground up and you had all the great opportunities that you could go look for property, you wanna choose the site your home is gonna be built on. So the first thing I'd do, I like people to do things so they don't have to spend money. So do a little research on the area, find out what was on that land before. Was it ever agriculture? Was there ever industry there? Was there...could there be any, you know, any hidden drums underneath the ground? Sometimes when you're near a military base or so, that's an issue. Check out the local air pollution, the wind patterns. If you're...have proximity to a highway, there's gonna be more of a high particulate issue. If you are near agriculture, look at the prevailing winds and make sure that you know how it usually blows because you could have pesticide drift.

So after you decide, "Oh, I really want this lot," And you're...still wanna dig down more, you could do soil testing for any pesticide and chemical contamination, but you also should do a radon test, and have an EMF evaluation to make sure that you have ambient fields that are safe. So you wanna have ambient magnetic fields of 0.2 milligrams, I mean milligauss. You wanna have electric field level ideally less than 1 volt per meter with very high-frequency mills. You'd love it if you get 0.1 microwatts per square meter. But there's a range, we have very safe, and a little bit still safe, and when you move into areas of concern. But anyway, you look at that EMF site and you determine, is that ambient EMF evaluation safe enough for your home?

So once you get that lot picked out, then you're going to need to create your plans. And to draw up your plans, you have to make some decisions based on ideally the climate the house will be built in. For example, you would not build the same house in the same way with the same materials in Maine, which is a cold and wet climate, as you would in Arizona, which is a hot and dry climate. And you would also then decide which way

those materials are put together because if you use standard construction practices, you run into more possibilities of mold, toxic indoor air quality, etc. So there's a lot of choices out there now. You can get the standard wood framing, advanced framing, insulated concrete forms like Durisol, structural insulated panels, poured-in-place concrete systems, there are several you know, different building envelope methods that you can choose.

And regardless of the wall structure or the building envelope that you choose, the first priority is the safety of the homeowner through the use of materials that don't threaten your health. And that's gonna mean you don't want outgassing chemicals in the indoor air. And you want your materials to be not vulnerable to mold and breathable. For example, a really high priority would be to eliminate formaldehyde-containing materials like OSB, plywood, and manufactured woods. And there's a lot of great new non-toxic products that can be used there. If there's a situation where you have to use a material that isn't optimal, well, there are certain techniques that you can use that can allow the material to be encapsulated so that there is no risk. For instance, if the product can't be inhaled or touched, the danger is eliminated.

So it's important, this next part is interesting and important. Obviously, the use of toxic products in construction is typically standard and it will be included in any building or remodeling project unless you specify otherwise. And so when most people think of a newly-built home, they can imagine that new house smell. Well, this would not be present in a newly-built, non-toxic home. We test the homes after they are built and the levels are just amazing. I've had architects go over to a house in the middle of the building project, and call, and say they cannot even believe it. They walk in and there is not a smell.

So that new smell is due to the VOCs the volatile organic compounds in the materials that are outgassing into the living environment and it's coming from the freshly-applied paints, wood finishes, sealers, putties, etc. And until they have cured to no odor, they will emit chemicals into the space. So materials with high VOCs typically cure out over time and so when they are applied, they may be very aromatic but with time, it goes away. So this is a very important point.

Typically, when a wood finish is first applied and there's a strong toxic smell, it gradually goes away and there's no issue with that particular material anymore unless that material also has what is called an SVOC component. SVOC stands for Semi-Volatile Organic Compound. And the VOCs are the aromatic part, the part that you can smell. The SVOCs do not smell, and they ride on dust and instead of decreasing over time like the VOCs, they increase over time. So when SVOCs are first applied, the levels in the home are low. The older the home, the higher the SVOC level is. So this term SVOC is very well-known in Europe, but it's only starting to emerge in the American consumer consciousness.

So, enter the Green Building Movement, which is being promoted as a healthy energy-saving movement. It's a move forward, but unfortunately, at this time, the definition of green is usually what I call "self-defined," and there's no clear-cut understanding of what it really means. And the Green Building Movement's primary focus is on energy, not health, although most people link the two together. So simply because a company sells a product or building material that's touted to be green and safe, it might not be. So we must become educated because many are actually very toxic and outgas for the life of the home. In other words, they never cure because they contain the SVOCs.

Now, this might be shocking but conventional materials are actually much better in many cases, because although it might take a while for them to cure out to no emission, the VOCs diminish with time and

eventually, go away. So if you think about the strong smell of an oil-based paint which is very, very toxic when first applied, but over time, maybe even six months or more, it completely cures out, then there is no air quality condition or, you know, no problem with your air quality.

Well, and I hope this is a little shocking, compare the new highly-touted no-VOC paints. They have no VOCs but they have added very high levels of biocides and antimicrobials, which are SVOCs that do not smell and do not go away. And I can guarantee, that if your drywall gets wet and stays wet, a paint with a biocide on it is not going to help prevent mold at all. It's just like if you're sitting on a couch with a fire retardant. If your house burns down and you're sitting on a couch because it has a fire retardant, it's not gonna help you.

Our building practices need to be changed so the homes are not vulnerable to mold. And the addition of biocides in individual materials is not necessary. But the building material manufacturers are taking advantage of the Green Building Movement and the mold phobia, and so because of this, many of the materials used in conventional building, that in the past, were very safe, and not even subject to mold, such as thinsets, and grouts, and even tiles, they are now being marketed with high levels of these biocides and antimicrobials.

So if you pick up a bag of thinset now, it will likely say very proudly, "Now with mold guard," or something like that or at least, they're shouting it out and you can say, "I don't want that." But these SVOCs are the plasticizers, the biocides, pesticides, flame retardants, polycyclic aromatic hydrocarbons, and those are things the asphalt-type products, things that are...chemicals that are released from burning coal, oil, trash, and also polychlorinated biphenyls, that's PCBs.

So in today's building, we don't have so many issues with the PAHs, the polycyclic aromatic hydrocarbons or the PCBs, but we do have a lot of issues with the biocides, plasticizers, pesticides, and flame retardants. Typically, both VOCs and SVOCs, are found in furniture, insulation, air fresheners, vinyl flooring, caulks, transformers, electrical equipment, Glade Plugins, scented candles, fabric softeners, laundry detergent residues, wool carpets, scented stationery, furniture, etc.

So let's look at a vinyl floor. When you put a vinyl floor in, you have a new vinyl smell. And that is the VOC component. Now, over time, that smell goes away, and that chemical emission is gone, and that's good, but because vinyl is made with plasticizers, and phthalates still emitting the SVOCs, and these are endocrine disruptors. So in terms of a non-toxic house and how that would look, well, no matter where you build, you would try to have as little or no of these VOCs and SVOCs.

The home with a couple of ventilated or pressure-moderated airspace and that means you would be bringing in fresh purified air coupled with your HVAC system, you wanna have breathing walls constructed from non-toxic, moisture-insensitive materials that have a high-drying potential, which means they aren't gonna stay wet and mold, to ensure that your building envelope is a system that breathes, is not vulnerable to moisture, and it's not harmful to human health. So a non-toxic home is a wonderful, wonderful thing to have. So that's, kind of, sums up that question in terms of what it would look like.

Katie: Definitely. And so for people, who are wanting to, address things already in their home, you already took us through the steps of getting rid of the obvious ones, like the laundry detergents, and the air fresheners, and the candles, and the pesticides. But I wanna delve into Branch Basics too because this was a game changer for me when I found it and it was...so similar concept, you mentioned in your story that you finally found something that you could use in your own home that reduced the chemical load, and it was safe

for laundry, and safe for cleaning. And then, you've actually gone on to create an even better version of that. So I wanna talk about that because it's so hopeful for people who are maybe a little bit overwhelmed understandably if they're just starting to understand all these problems because it's something you can use very virtually in your home and address a lot of these problems. So can you explain basically, what the formula is and how it works to do that?

Marilee: Branch Basics, our formula was very hard-fought for, this one we have...we went through over 100 iterations. We tried, kept trying one formula after another, and we were using the chemically-sensitive as a benchmark for testing. And so, our criteria was, we didn't want the formula to irritate the eyes, to irritate the nose, to irritate the lungs, we didn't want it to have any residual smell, we want to have no fragrance, we wanted it to be one that could be used and be versatile that could be...you could use from everything from a degreaser to a window cleaner to a laundry product, so that people could easily replace all of their toxic products with just one concentrate, that, we have individual bottles that you mix with water.

Like we have an All-Purpose that you fill to a fill line with water then you add a certain amount of concentrate. And our Bathroom Cleaner, you fill that with water to a fill line and add more concentrate because it's stronger. And then our Window Cleaner which you use distilled water because you don't wanna use tap, that might have minerals in it because it could create streaks. So you only use one drop of that product in there.

And we had a really hard time getting a product that would do all of that plus not irritate. And we were about to give up. We had actually done about 99 iterations, and we had exhausted everything, and finances, and all that we can, you know, we just had put in so much effort. And finally, this last iteration, we couldn't believe it, it was fitting the bill. And we were so excited because we actually just had this, what we call "end product testing."

So we have our ingredient list, all the ingredients are listed on the label. The cleaning industry does not require cleaning products to put the list on the label. It can all be proprietary. But we decided to go with the cosmetic requirements that require you not only to have every ingredient, but you have to put the ingredients in order, that they are found in the product, and you have to use their ENC name. And so we wanted to have you know that clarity.

So we have just done some...what I'm saying, we wanted to do, not only list our ingredients, but we also wanted to do end product testing. And we did our first testing, we did...we wanted to make sure it was non-GMO, so it was non-GMO. And we also found from that testing, that there is not any even corn DNA in the product. And so a lot of people are very concerned about corn. So there is no corn and no corn DNA in the end product.

And we just got finished with our most exciting results. We did a skin irritation test and the results came out beyond what we could have ever expected. So when I got the results, I spoke with the lab, and they said literally, that they work with Fortune 500 companies, and they work with many companies, and they had not had a product that tested just like...it tested just like as if it was water, in other words. There was no reaction whatsoever. We got like 100% on it.

And most products might be called not a skin irritant, but they might be 78% or they passed with a 65%. But our product was literally like the control. So they have your...it's a test where you put skin-like tissue into direct contact with the formula for an amount of time. And we did three different types of skin tissues in

contact with the formula for a specific time. And there was absolutely zero reaction whatsoever.

Now with that said, obviously, anyone can be allergic to something in a product. We chose a very special chamomile that has two European certifications, that is not a fragrance and is not an allergen. Some people are allergic to chamomile. So there may be people that have a problem with that, I don't know. But that's something we always have to be, you know, understand that someone could have an allergy to an independent ingredient.

So we were just thrilled with that. And we were gonna continue doing more of this end product testing because what we wanna do is we would like to sort of set an industry standard and that would be, "Yes. Let's see the ingredients, but let's see what, how they perform once they're mixed." And I'm just gonna make...do an example here of how ingredients in a formula may not really reflect what's in the end product. When you take a natural soap, the ingredients for that are saponified oil and lye, which is very toxic. It's not only toxic, it can blind you, it can kill you if you ingest too much. It's very, very toxic. And yet, once it's mixed with the saponified oil, it's considered one of the safest things you can use. It's a natural cleaning soap.

So we want to establish with end product testing that the end product is actually safe. It's not, you know, not skin irritant, not an eye irritant, not a lung irritant, and so on. And so we think that's really, really important. And so it's interesting because the testing company said to me, "How in the world did you all come up with this?" Because like I said, he said, that they work with big, big companies and, you know, they are not achieving this kind of testing result. And I said right away, I said, "Well, it's really very simple. We were three people, who were not chemists, but we were using the human body as a benchmark and the chemically-sensitive as a benchmark, and we were testing with people that were sensitive. And the human body is much more sensitive than any instrument." So we are thrilled about that result.

Katie: I love it. And it reminds me the fact that you guys aren't chemists, it actually reminds me of, I believe it was Henry Ford when he was making the automobile, he wanted a windshield that wouldn't shatter. And all the people who were experts in glass and everything said that it wasn't possible. And he said, "Well then, find me someone who is not an expert in this, who doesn't know it's not possible, so they can figure out how to do it." And so you guys were that same kind of thing, you weren't chemists, and so you're like, "Well, we're just gonna make it possible."

Marilee: Well, that's right. And it was interesting in that process of working back and forth with the formulator that we ended up with, who was really wonderful, you know, we would get a sample, and we'd go, "No, this is not working." And I can remember one day, we were on the phone and we're just trying to go through, "Well, what can we do? What can we do?" And a word came out of the chemist's mouth. And I said, "What did you just say?" And she mentioned an ingredient that I knew that my clients had problems with, I said, "No, no, that's not supposed to be in here." I mean, we had to go through a lot to really get everyone on board with what we were trying to do because it was always, "Well, this isn't gonna make a difference." You know, "We need a little of this, a little of that, a little of that."

So we had a list of ingredients that we did not want in there. And I don't know. We have our story of how we came to the formula. Our original goal was to create a natural, pure natural soap that didn't irritate just like I was saying. And we got very close. We found that we got a formula that worked really well but it still had that little bit of irritation with the eyes, and especially the eyes, and then the lungs. And we just said, "We can't do that." And so because of that, we turned to being open to using the alkyl glucosides which are the mildest of

the surfactants. And so we experimented with that, and tested, and tested, and tested with this amount of that, and this amount of this one, etc. And finally, we ended up with the one that we have. And we're really happy because it works. We wanted something that really worked. And this really works.

Katie: I love it. And I'm definitely a fan. And anybody who's interested in trying it, you guys can find it in the show notes at wellnessmama.fm I would definitely, I would encourage you to give it a try, not only does it work really well, it's budget-friendly because you get to stretch it and avoid putting a lot of plastics in the landfill, which we love. And Marilee, I could seriously talk to you, I think all day. And I think we may have to do a round two one day because I have a feeling we're gonna get a lot of questions like, "Wait, what about this in the home? What about this?" And you have so much wisdom on this. Your passion is evident in your story and just how much you love this mission of helping families create healthier homes. And I'm just so appreciative that you were here today. And like I said, I think we'll have to do a round two. But thank you so much for being here today.

Marilee: Well, thank you so much for having me. It's been a pleasure. Thank you.

Katie: Likewise. And thanks to all of you for listening. And I hope to see next time on, "The Healthy Moms Podcast."

If you're enjoying these interviews, would you please take two minutes to leave a rating or review on iTunes for me? Doing this helps more people to find the podcast, which means even more moms and families could benefit from the information. I really appreciate your time, and thanks as always for listening.