Dave Asprey (00:00:01):

You are listening

Dave Asprey (00:00:02):

To the Human Upgrade with Dave Asprey.

### (00:00:10):

I'm teaching you some of the things that are in my new book, smarter Not Harder. And the idea there is that you can upgrade yourself. And there are things that we know work like, I don't know, exercise. So you could say, I'm going to go do 90 minutes a day of exercise and I know I'm going to get results. And the reality is you probably will get some results, but it might take a huge amount of time. In my case, it was 702 hours of exercise over 18 months. That's about oh, a third of a full-time job for a year in the gym. Sweating. Now you think I would've been chiseled and all, but I wasn't actually still had a 46 inch waist and still weighed 300 pounds. And it's sort of the things that made me a biohacker today because I'm on a low fat, low calorie at the time, semi vegetarian diet and just hungry and tired all the time and still going to the gym with all of my effort.

### (00:01:10):

What I didn't know was that I was also being exposed to a xenoestrogen. This is an environmental estrogen a thousand times stronger than human estrogen. Human estrogen makes you fat. You need some of it. Men and women both need it, but you need the right levels. You also need testosterone. My testosterone levels were at a hundred. They were less than my mom's testosterone, and we actually have her lab data and my lab data from the same time. So any wonder that I looked androgynous in 300 pounds and still have stretch marks from that time, even though today I'm 7.9% body fat as measured at upgrade labs, that's what was going on with these xenoestrogens. Was I licking cash register receipts? Was I blending them into my smoothies? Was it my polyester sports brass? Which by the way, do have a lot of BPA in them, although fortunately that's not something I've ever had to wear.

#### (00:02:08):

But no, it was toxic mold. And toxic mold makes that and a whole bunch of other stuff. And in the episode today, I want to talk about a smarter, not harder way to deal with what's going on. If you have all sorts of unexplained problems in your home or where you work or where you're going to school, they can be very different. One person's fat, another person's always tired, other people have dark circles, other people have emotional irregularity and bursts of anger that are out of character, sudden weight gain, onset of allergies that no one can explain. And all of these things before I was 16 even. So it turns out toxic mold is a uniting element in that. So our guest today is Brian Carr. He's a second generation indoor environmental consultant and he works with hypersensitive individuals with complex medical conditions. That was me.

#### (00:03:06):

And I'm actually not hypersensitive to mold the way I used to be, and I know this because I spent several months staying in a place that had high toxic mold levels and I didn't have any reactivity. It wasn't good for me, but I didn't have the immediate kryptonite. I need to take a nap. My brain turned off. It's like a full system shutdown feeling that I've had for almost my entire life when I walk into a moldy building so I can feel it, but I could smell it, but it didn't wreck my nervous system. So this is because of some of the resilience practices that I've been teaching, but the guy who helped me understand what was going on is Brian and he's the co-founder of We Inspect, which is environmental testing company who works to help people understand mold mycotoxins and even bacterial toxins that exist in your homes.

#### (00:03:57):

What's there even now to the genetic level and what it's doing to you. Go back to the definition of biohacking. When I wrote it, that very first little kind of steampunk looking PowerPoint slide that I turned into an infographic, it was the art and science of changing the environment around you and inside of you so that you have full control of your own biology. If your environment is moldy and has biotoxins, then maybe you don't have control of your biology. The mold does because it's hijacking your system. Brian's become just the go-to guy for a lot of medical doctors across the country. He's helped more than 5,000 people as sensitive as I used to be to create healthier living environments. And you're going to learn a lot in this episode even if you're saying, well, I don't have a mold problem, you'd be surprised because you know that marital problem you might have that can be mold because one of you can have very different symptoms than the other.

### (00:04:57):

If you've ever had a chance to go to moldy movie.com, this is a documentary I shot a couple years ago, actually probably like five years ago, and it's free, it's a gift. And I interview a dozen people affected by toxic mold and a dozen top experts, medical doctors across the country in order to really show this is real. And my favorite interview is with a couple, they're both medical doctors and he's sitting there going, I never felt anything but it's real. And his wife, who's also a medical doctor, she's like, Hey, I thought I had hypochondria because I had too many symptoms. It must be in my head except my temperature was too high. So I biopsied every organ in my body. They punctured her liver to see what was wrong and what was wrong is their house had mold. And so that conversation, no medical doctor, even the most skeptical one can see that conversation and go, this is all in your head, it's not in your head.

#### (00:05:54):

And Brian's probably the top guy to say, not only is it not on your head, it's in your home. Here's exactly where. So Brian, welcome to the show. Thank you for having me. What an intro. I love it. I'm just honored to have been able to kind of work with you and obviously be able to chat with you here and try to make this hidden thing that nobody can really kind of put their finger on a little more easy to understand because I think that's a big problem with it. Tell me about the history of we inspect. Well, so it actually starts before we inspect. So we're a family company. I married into the family. My father-in-Law has a twin brother.

### (00:06:39):

When they were younger about 20 years ago, they started mold inspection businesses. They didn't do it because they understood what we're going to talk about today, yet they did it because there was an opportunity and they thought there was interesting and they were kind of into that stuff. And so they started these companies and after a while they kept getting the same questions from their clients and they kept seeing the same types of things, which is a lot of what you just described we're sick. My doctors don't believe me, I feel like there's something here, but I'm not totally sure. My husband's fine, but I'm not. Their symptoms we're all across the board. And then they started asking health questions and they didn't know the answers to those yet. And so they started going to, there are large medical conferences now that focus on environmental health, right?

### (<u>00:07:31</u>):

There wasn't a lot 15 years ago, there wasn't as much as there is now, but they started going to these things and they would go in and be like two, 300 doctors. They're all functional health doctors, this sort of thing, and everybody networks at these things. So the doctors go up to and they're like, oh, hey, where do you guys practice? Where's your office? All this stuff. Like, oh, we're not doctors. Everybody's

just kind of shot. They're like, well, what are you doing here? So they explained what they did and the doctors immediately were like, oh my gosh, we need somebody like you to help us put this piece together. The more progressive functional medicine community was aware of this stuff. They didn't have somebody in the field that can go into the homes and kind of put two and two together and the practitioners knew that if the exposure kept happening that their patients weren't really going to get better.

## (00:08:20):

And it really just kind of opened the door for what is out there and really how we can make our impact in the world. Well, fast forward years off of that, we are now speaking at these conferences and we're educating the doctors and we're educating our industry and we're doing a lot of that. And with that came a lot of demand and referrals from all over the country and sometimes even beyond the country in many cases. And then that's where we inspect kind of took hold. So myself and my co-founder Corey, who is my cousin, who's the son of one of the twin brothers, all of it together, we were kind of the younger generation, knew how technology worked. We kind of knew all this stuff, but we've got to figure out a way to not just say, we're only in LA and New York and if you live in the middle of the country, it sucks to be you, right?

### (00:09:05):

That's not fair. It shouldn't be like that. That's not the time that we live in. And it took a few years, it took a lot of money and investment and building infrastructure and building systems and process and get to where we are now. We work all over the country. All of our inspectors are trained directly by me and our team and we are able to go anywhere really at any time. And then beyond this, the future where we're going next is we've are turning all of that into a mobile application that will make things even more accessible for people to where we don't even have to travel to your house. We're in beta on that right now. I'm sure by the time this airs it's going to be out. So I'm really, really excited for where it's going to go and just the amount of people that we're going to be able to help and guide.

#### (00:09:48):

That's fantastic. What was Betsy's role in the foundation of the company? There's a really cool story there that I didn't even know about until you told me at my house. So Betsy works with us. She runs our health partnership division. So we actually have an entire group that the whole focus of this group is to provide resources and education and guidance to the medical community to help them connect the dots. Betsy had her own health issues that were exacerbated by mold exposure. And there's a lot of people that are like this. There's a lot of doctors that are like this too. The people that are the most forefront people in this industry, I'm one that's included, had their own health issue with mold and we're like, holy crap, what am I doing in the world because whatever I'm doing isn't as important as figuring this out.

# (00:10:40):

And then people find their calling off of this, and you started biohacking. We moved into mold and spa, all these different things. Doctors start practicing and that's really how changes started to happen in this world. And she had her own health issues, she was impacted by mold. She was emailing with you way back early in the days before you were who we know you are now asking for tips and advice and help because she read your book and did different things and you were gracious enough to respond, which is pretty amazing. This was before I wrote a book. It's kind of funny back in this must be like the late nineties. I was running this anti-aging nonprofit group right outside Stanford University and I was learning what is now biohacking from people in their eighties in my mid twenties. And it was such an opportunity and I started just talking locally.

#### (00:11:33):

I gave the first big talk about toxic mold and all the different things it did and how it got into the body and how it was in food and how it was in our environments. And then Betsy started emailing me and people who have mold or people who know people with mold were listening are like, oh, I get this. But when you have mold, everything feels 10 to a hundred times harder than it really is. And it's not that you're weak, it's not that there's something wrong with you actually. There is something wrong with you, you're being poisoned, but it's not a moral failing. It's literally everything looks like Everest and you forget things constantly. So when you're working with a mold patient or someone who's been affected, you can tell them something and 20 seconds later they can't remember it and then they get mad at you because they can't remember it.

### (00:12:22):

So Betsy might've been like that and she'd email me and I would just respond anytime I could help someone with mold. To this day I still do. In fact, just recently a journalist from a big publication broke down in tears on camera. I'm like, oh no, you're not crazy. You have mold. And we went through it. So I get joy from helping people not go through what I went through and she was one of those I'd forgotten about it. And then when you reached out and Betsy reached out and sent me this beautiful email going, do you remember I was that crazy mold person? I'm like, which one? All mold people get crazy. And oh yeah, I actually remember this exchange. And so the fact that she's working with you 20 years later on helping thousands of people with mold, that actually makes me really happy.

### (00:13:00):

So that's just a neat, we inspect story, it's really cool and your story shows people that you can heal from this stuff. But I think a lot of times when they see somebody like Dave Asbury who is healed from this and he has all the connections that he has and he has all the toys and the tools and stuff, people start to think, well, oh, I don't have access to all that stuff so it can happen to him because he has access to this stuff. Betsy didn't have access to any of that stuff and a lot of our clients don't have access to any of that stuff and they can still get there. And so that little micro story there is to just let people understand that it's not just the lucky people that happen to know somebody here or there that anybody can do this.

# (<u>00:13:47</u>):

You just need a little guidance is out there. A little guidance can go a long way. But the most important thing that I think we can share with people in this episode is just you are not crazy if you feel like you're hungover all the time and if you feel like you can't control your emotions and that you keep getting fatter for no reason and you just moved or that's weird. Yeah, there was that water leak, but the plumber fixed it sometimes that's all it takes. One of the stories that was really formative for me that really brought this out, I already knew about mold and the place where I was staying in Northern California, the dishwasher wasn't working. So we had it replaced and the guy said, oh, there's been a water leak behind the dishwasher. It looks like it's for years. And they put in the new one and my dogs stopped eating and then it was like my gut lining shed, I'm like, oh my God, I feel like I ate Taco Bell, but I didn't go to Taco Bell and then had this worst brain fog and no amount of coffee, all normal things.

### (00:14:52):

It was like something went sideways and it took me a week or two to figure out it was mold. And then instead of moving, even if it's you have to put on your credit card, you just have to get out so your brain can work again. So if you don't have enough time to have conversations with people about what the information you're giving them actually means, and you saw this yourself, when the information comes, it's like, whoa, there's a lot happening. And if you don't have the guidance to walk you through that, you can start to spiral. And that's where you start to get to the feelings that you're talking about. It's

hopeless. There's nothing I can do. I'm just going to sit here and die Because you see a report that identifies problems and that immediately is going to elicit a feeling of either fear or hopelessness or overwhelm.

### (00:15:36):

And so what we have to do and what we've learned with working with people that are sensitive is you have to have to apply context to stuff. The information that we're finding and just testing and reports, it's all just hard data. It's what it is. This is what the problem is, this is the best way we know how to fix it. It's not applying priorities, it's not understanding their living situation. It's not taking into account their goals and what they're trying to figure out or their limitations or anything like that. You start getting into these conversations. And even in renting, there's all these sub goals I'm renting and I just want to get out of the house. I'm renting, but I want a little something for leaving because I feel like all my stuff is contaminated, so I feel like I need to get some sort of compensation before I get out of the house.

### (00:16:29):

It's not just wanting to leave, it's about getting compensation. Just those two goals change the entire way that you test a space. So you build a story in terms of your testing around the goals that you have, and then we talk through how do you prioritize, how do you leverage certain things, how do you have conversations with the key players in the game to help you get to where you need to be? And I was the first person I saw this happen to before I even knew that mold was a thing. Mark, who's my father-in-Law who was with me when we came to check out your place that you were in, he went through my space. I knew nothing about it. My landlord sent in somebody who said everything was fine and was one of these pump jockeys that were there for 30 minutes. Mark comes to in, he is in my house for my 800 square foot apartment for three hours, finds eight things that are going on and then asks me, so what's your goal?

#### (00:17:26):

What do you want to happen here? And I'm like, what do you mean? Because you don't think about that stuff when you're going through it. And he asked the questions, do you want to stay? Do you want to leave? What do you want to do this or that? And so he helped me get out of the lease partially I was dating his daughter. I think he was a little more hands-on at the time. That might help. He might've been with someone else, but he showed me how that piece, the consulting piece, the guidance piece is just as important as the identification of what the problems are in the space. And when you marry the two of those things together, that's where all the stuff you just talked about starts to diminish because somebody feels like, oh, I have a plan. There's a light at the end of the tunnel.

### (00:18:09):

Here's my approach. This is how Brian got out of his three leases in LA and all the death pits in LA that exist out there. Every single time I moved in LA there was a water leak and I had to get out and it was a formula of full inspection test, two to three things that I felt really confident that we're a problem. And then I have a letter written by an attorney that says, here's how this is going to go down. And that will scare pretty much any landlord into just letting you out of your lease. They don't care. There's a framework. I see it work. Share that with somebody in a consult. Here's how it works. Here's what you can do to achieve that goal. That's like one example. This is a major problem, and I've heard this for probably a thousand times over the last 10 years because I did the documentary because I've been pretty public about what mold did to me until I fix it.

#### (00:18:57):

It's part of my biohacking journey. People call and say My landlord doesn't believe me. They came in, they sprayed bleach on the mold, by the way, does that work? No. Yeah, spraying bleach on mold feeds the mold because there's water pisses off. Yeah, exactly. It makes more toxins. Yeah, it's like, hey, let me punch you in the face and then give you a lot of food to recover. It's like weightlifting for mold. That's what bleach is. But that's actually not true If it's on porcelain or something, that'll actually kill it. But if it's on any porous surface, you can't do it. So alright, the landlord doesn't want to admit there's a problem because then they would have to disclose it to someone else or they'd have to pay to fix it. Either way it's terrible and it can be very expensive for landlords. And if you're a landlord and you're saying, well, I turned the AC off because no one was living there for three months, you just created a mold bomb, a house with no environmental circulation that's closed off, stuff will grow.

### (00:19:54):

That's how mother nature recycles. So you have to keep at least a minimum level of circulation. There's all these things that people don't do. Even Airbnbs, I don't stay in them very often because most Airbnb owners just turn off the AC until you're there and you walk in, you're like, oh, it smells a bit funky. And you open the windows and then the next day you're like, I don't really feel that good. So there are solutions to this air filters, which is a company that I started specifically around this problem. It's a environmental probiotic. You spray around and it's a bacteria that lays dormant and waits for mold. And then when mold comes out, it's the same stuff that competes with mold in the soil, but now it's in a home and it's not going to fix inside a wall or something. But I know that if I'm in a hotel room that's on the edge and I miss that around and I come back a couple hours later, it's actually much better.

## (00:20:42):

So it's something that's very low cost, like 20 bucks. It's not one of my biggest companies. I barely talk about it, but it's one of those things that certain mold people just know about and it's something that I travel with. So there is, I dunno what else to do though. So I'm going to go back to that. I don't have a hundred thousand dollars to spend and I might be able to move out, which is going to be financially devastating. I have to leave my mattress or maybe just get an airtight mattress cover and keep your mattress. But anything that mold could have settled in isn't going to be safe unless I clean it. What's the lowest cost way to get rid of say, mold in a room? What's interesting, if you look at it just in a vacuum of I have mold in a space, how do I get rid of mold in a space?

### (00:21:30):

Well, let's define what getting rid of it means. There's levels of getting rid of it. How much am I getting sourced? Or it needs to be a combination of two variables. What is my health condition and of my body and what is the health condition of my house? And they need to be able to balance. Now somebody who is really resilient can be exposed to more mold in a space because their body can handle it and they find an equilibrium. Other people who are incredibly hypersensitive and one hit of it just kills 'em for two days, their bear is way low. So now that means that your exposure needs to be way low to find your equilibrium until you start building up your resilience. And then just like you said with the space that you were in, you used to be really bad, but now you're not because done some work and you can handle being in a space for a little bit without completely crashing.

#### (00:22:27):

And so I think as we're talking about, well, what's the cheapest, lowest cost, fastest way to handle something in a space we'll get there. Where's your starting point? Because if we don't know where your starting point is, I can tell you, listen, the three easiest things you could do right now, get a really good air filter, open up your windows for 10 to 15 minutes a day and do a super spring cleaning on steroids to get rid of all the subtle dust in your house. You do those three things and you're getting rid of a lot of

the everyday exposure that's going on. So this might be the one time you want to wear a mask is when you're doing a deep spring cleaning in a home that has had some mold. So you wear maybe an N95 mask, and I actually owned an N95 mask for that purpose before all of the nonsensical use of masks came up.

### (00:23:17):

And you actually really do put that on and then you clean or you have a cleaning service to it if you can, but it has to be like you lift up everything, you dust all the books, everything, and magically you feel way better. And it's not dust mites necessarily, they could be a problem for you, but it's these little particles that just happen. So if you see dust building up, especially around the bedroom area, you got to just get it handled. That makes a huge difference. I think to expand on that, I think we didn't talk about why dust is an issue. Yeah, let's do that. Yeah. The reason that having a really thorough dust cleaning you can feel a big impact is because what happens when mold spores or toxins or even bacterial fragments also we're talking about, and it's not just that stuff.

#### (00:23:59):

It's everything. It's insect fragments, it's skin fragments off all the stuff that floats around our house, airborne pollutants, gravity brings them down and they settle industrial reservoirs and dust acts like a giant spider net or spider web basically. And it holds all this stuff. Well, there's this thing that's called the human cloud effect. There's studies that are done on this. So the visual of this is if you ever watch Charlie Brown and there was the kid that was super dirty all the time and he always had this cloud of dirt just surrounding him all the time. That happens to us literally every step we take in our house, every time we sit down, every time I bump my computer desk, except instead of dirt, gross, smelly dirt, which is what that was supposed to be, it is invisible particles that come up from dust settlement on your counter, on your couch, on your carpet when you're walking, it pops up into the air and it becomes part of your breathing zone and it creates what's called a human cloud.

# (00:24:53):

When we're exposed a mold in a house, the source of mold may be behind a wall that might be where it's coming from. The source of the mold that's hidden behind the wall is not actually what we're breathing. Our face isn't behind the wall, right? It's creating what we're breathing, thinking like a factory. There's a factory a mile down the road. You're not walking in the factory, but the smoke coming out of the top of the factory is the air pollution that you breathe when you walk outside. The air pollution in our house is the spores and the fragments of stuff that come out of the factories that are hidden behind the walls and these water damage areas that we talked about. Your direct pathway to exposure therefore is what's floating around. And a big chunk of that, huge chunk of that is settling in your dust and constantly getting resuspended into your breathing zone through the human cloud effect.

#### (00:25:41):

So if you remove the dust that is carrying all of the toxins and the contaminants and stuff, and then you walk around your house, there's less of that to pop up in your breathing zone, less exposure, you start feeling better for a short period of time. So that's the connection between dust and why dust cleaning can help you get a short term feeling better kind of thing. But it doesn't mean the factory that's back there isn't still creating smoke. And that's the part that we have to understand is if you truly are trying to long-term fix it, you have to bulldoze the factory down. You have to shut the factory down, fire all the workers, make them stop creating stuff. And if you can do that, then you can do a final clean of the house and the dust cleaning like we talked about, and then you're not going to have any more that gets built in anymore.

#### (00:26:32):

So it's just understanding. So we get back to what's your situation, what's your health situation and what's your goal? I'm sensitive, I'm in a rental and I'm not trying to be here long term. Cool. So the two things that you need to do are, one, you got to try to package your testing and your data in a way that's can give you leverage to get out of your release. And the second thing you need to do is short term interventions to help reduce your exposure and make you feel better for a shorter period of time before you get out and go somewhere else. And then that's the consulting package basically in my mind that I would put together for somebody that I'm talking to there. Okay, I'm liking that. One of the things that I did run into, I am actually a fan of doing an air test if it's in the air, you know have a problem, but you probably want to stomp around and kick up some dust before you do the air test so at least you'll get a reading.

### (00:27:22):

But what I did that was a mistake before I stayed in a place for a little while, we'll get, I ran an air test and I didn't find much. I'm like, all right, it's fine. But what I should have done was stomped around a bunch or now from learning from you and talking with you, if I'm going to go stand in place, I want to do for a long period of time, I want to do a swab test to find the dust, what's in the dust because that's such a problem and I want to do an air test and kind of have both. Is that a good approach? Honestly, I'd leave out the air test. We don't do, I mean you probably saw this when we were in your place too. We don't do air samples in the middle of rooms anywhere. Interesting. There wasn't one that we did in the middle of an open space anywhere because I know, and this is from the reason I know this is because I did this in the study for a year on every house that I went into.

## (00:28:14):

70% of the time an air test is going to give you a false negative when there's a hidden mold source in a wall or under a cabinet or under the floor three feet away because it just can't pick it up because there's too many variables. When you start thinking about air currents and this and that and all that stuff that's moving around air sampling, the further away you get from the source, the less and less and less effective it gets. So the only way that we really do air testing, we actually call it source identification testing. It's to know where the source is. So what's an example of that? I look at a wall and I see the paint is chipping and there's bubbling on the baseboard like that, but there's no mold on the front of the wall, so you can't swab the front of the wall.

### (00:28:59):

There's nothing there, right? Nothing's going to come on a swab. So how do I know if there's mold behind the wall? Because the water damage is the clue and the red flag that tells me there might be something here. We do what's called a cavity air test, put a little hole in the wall, put a tube through the hole, connect the tube to the air sampling pump. Now I'm collecting air from behind the wall instead of random air floating around five feet, 10 feet away from it. And I get right on top of where I think the problem is. And if I see there's something there, I know there's a problem right here. It's right here, I found it, it's right here. This is where it starts. And if you get in there and there's nothing that comes up on the sample, you say, okay, I sampled an area where the water damage was most significant.

### (00:29:41):

We know that water plus organic material equals mold. That was my reason for testing it. I get in there, sample says there's nothing there. I feel pretty confident that there's not a big problem back there if any. So we leave that alone. Now as we're starting to go through lab results and remediation plans and protocols and what that looks like. But to get back to your question, if you're first getting into a space and you're just like, I just want to know if this place has a problem, how significant is it? If it is, so I can tell you where it's coming from. I'm just going to let you know if there's something going on here. You

do what's called a dust test and it's literally a dust collection of the dust in the house. And it's the same reason that we talked about all this stuff settles down into the dust and the dust acts like a spiderweb and it grabs all of it.

#### (00:30:27):

Now the thing that in addition to just the home science of how things settle and then all that, the other reason that dust sampling is way more effective than air testing is because air sampling can only look for what's called a spore. So if anyone's familiar with mold that's, listen to this, they've probably heard of mold spores. That's probably what they've heard of. So think of that when you're a kid and you pull up the flower and you blow on it and the little things fall off, blow on your sister's face, and then she starts crying and she punches you in the face and then you realize that that's your entire relationship with your sister until the end of your life because of that one deadline like that, you mean? Well, I don't have a sister, so that's messing with you, Brian. Geez, I know.

### (00:31:15):

For real. Sorry guys. Listen, this is going a whole nother way. The last half of this is all relationships, health. No, think of that as the spore that comes off, right? That's a spore that floats around. But what if the entire, let's not use a debt, let's use a tree. It's easier to visualize the leaves on the tree Are the spores in the fall, leaves come off. Those are the spores from your colony, but you still have the entire tree. The tree has a trunk, it has roots, it has branches, it has bark, it has all this other stuff that's on there. None of that gets identified in a regular air sample, but in a dust sample it can get all the way down to a piece of bark that happened to break off of that colony that has the same DNA signature as that mold type and it can identify that within there.

### (00:32:03):

And why is that important? Because that is the true load of what you're being exposed to. Our body when we breathe something in doesn't look at it and says, oh, it's a spore, so I don't like this. But anything else is fine. It breathes in whatever it breathes in, and if it's any part of a mold colony or even the toxins or whatever, it triggers the immune response. It's something that should not be in our body and air samples. And so one of the studies that are out there says that the amount of fragment, so I think the bark, the little piece of bark that broke off the tree is compared to the leaf that fell off the tree. The of fragments in a home can be up to 500 times the amount of spores that are there. They break off like that. So our true understanding of exposure is better identified in a dust sample because you take out the variable of airflow patterns and all this stuff, you just go straight where it would be located, which is in the dust, grab the dust, now you've got it if it's there and the analysis on it is way more in depth and it gets all the way to the species of mold.

### (00:33:06):

So let's say you're somebody who knows that you have mold toxicity and you've done a urine mycotoxin test and you've got ultra toin A or you've got fill in the blank of whatever toxin you have, you can now correlate that directly to the mold species that are in the house. And just from that, you could start getting understandings of what your environment means for your space. But if you're screening a new place, you do that, there's a test that's called the dust test, which is one of my companies, the dust test.com. And what we did in that test is in addition to just telling you what molds are present, the other thing that we did is we went back over three years of all of the inspections that we did and we figured out where your home would rank on the scale of every house that we've ever been into over that three year period and give you more understandings of how contextually your space would relate to that in terms of the percentile that you would fall into.

#### (00:34:06):

Because if somebody is doing it for that reason, they're like, I want to know if this space is a place that I should even move into or is it too far gone or I should look for another one. The only way that is with context. And so again, just like I said earlier, I could give you all the data, but if you're not getting consulting, then there's no context. What do you do? Right? The same with these lab tests. I mean even human lab tests, here's all these numbers. What the hell does this mean? It's the same thing. Without context that doesn't mean anything. It can actually be more scary than not scary without an understanding of what's normal and what's not normal and all that stuff. So what we did is I took the last three years of inspection data, what we found in the homes, all that stuff, and integrated it into the report that comes out with the dust test.

### (00:34:51):

So now when you get a result from the dust test, you get all the actual raw lab stuff like you normally would with any sort of dust test. But the other thing that you're getting is the context. Where does my house rank on the scale on a percentile basis of all the homes we did? And then the third thing we lumped into this, because again, consulting and context is key in all of this free phone call with our team afterwards, you tie it in directly into the dust test report. There's a link in there, you do it, we have your information up in front of us, and when you actually get a consult with the people that know how to read these things on what it means for you, and then what happens in that talk, the same things we said, well, what are your goals? What are you looking for? Where'd you come from? What are you wanting to do based on all of this information, here's the advice we would give you. None of that exists in the environmental world. There are some health lab companies that do stuff like that, but our side of it, nobody does this stuff.

### (00:35:50):

This person got cancer, this person had diabetes. It couldn't possibly be the same thing, but you realize, oh, whatever molds in those people's house, it was reducing mitochondrial function, which actually is a cause of both of those things since mitochondrial bacteria, the fungus had a toxin that affected that system or another system in the body. I believe that the vast majority of cases of chronic fatigue syndrome are caused by toxic mold. Lyme disease, everyone with Lyme that sticks around has toxic mold in their house like 90% of the time. So is it actually caused by Lyme or was it the mold did something bad to you that let the Lyme do its thing? So what I'm finding is we go lower and lower in the immune system. We're finding many seemingly separate symptoms are all caused by the same thing.

## Brian Karr (00:36:42):

Yeah, it's interesting because mold is an immunosuppressant, right? You weaken your immune system and we already have a hundred trillion different types of bacteria in our body. Anything can take over and cause any sort of symptom or illness within the blink of an eye. I mean, our medical system does a great job creating baskets, putting labels on it and then throwing people in different baskets based upon their symptoms. But it doesn't get us any closer to the information we'd need to really thrive as a civilization because for so long people have been saying, no, your house can't make you sick. That's crazy. Even to this day, I'm constantly talking to new doctors who are new to the information. We're not doing a good job really taking a lot of these cases and bringing them to the forefront and saying, what is the breadth of this?

## (<u>00:37:34</u>):

Because for one, if you look at Lyme disease, you look at Sears, you look at chronic fatigue syndrome, you look at pretty much every autoimmune disorder, every autoimmune disease. We look at the work that Dr. Bredesen's doing with cognitive impairment and cognitive decline and inhalational Alzheimer's. What do they all have in common? It's neurotoxins, it's environmental toxins. It is in stuff that we can

get through the air inside our own homes, but yet we're not investing billions of dollars as a culture to study this. We're not moving the needle forward. It's a couple of people like you and me right now that have dared to try anything to promote this as a topic that is affecting our civilization. And so we don't have all the answers, but we have great suspicion for sure.

### Dave Asprey (00:38:27):

If we had spent as much on remediating bold from our schools that are almost universally moldy as we had on buying throwaway masks over the last two years, the overall death rate would be lower now, not higher. It's that big of a deal just from the exposure of kids. University dorms and places that are funded by the public are rarely maintained properly. And you just find that it's a massive, massive issue and people dunno why they have brain fog and asthma and rashes and GI disturbances and Hashimoto's thyroiditis and all these other things. Well, this is a trigger, but it's not the only trigger. You put together a talk two years ago and talked about, talked to the Air Quality Association's annual conference, and you found a subset of people that had a different reaction to mold. Tell me about what you shared and what response you got from that.

### Brian Karr (00:39:24):

Well, basically I did a presentation for the Indoor Air Quality Association and it is a group of professionals like myself who are sharing information with our colleagues, really trying to help shape the community to help more people, right? Because I think it's important that if we're going to be in a mold remediation industry, everyone should be on the same page so that when you call somebody, whoever shows up to your house is going to have the same standard. And that isn't the case today. Unfortunately, at this conference I presented the talk was I believe, called mold remediation and mold investigation for hypersensitivity. And it's kind of a term I've moved away from since then because I think we are all hypersensitive in our own way. But it was really trying to break the mark for this community of professionals that the way in which we do things, it doesn't work for a large subset of the population who seems to be affected by this chronically.

#### (00:40:27):

And here is what I've been doing as a professional to really help this population. And I kind of made a call to action that we all need to be moving this industry forward in this direction if we don't want to have a sick society here. And well, I was heckled. I had people standing up saying things like, so you're telling me that if mold's in the attic, we got to remove all the insulation? Well, these builders that I work for, they're not going to pay to do that. And it all just became about money almost instantly and all the reasons why they can't conform. It was very frustrating as you can imagine now I would say maybe 90% of the room was not enjoying what I had to say because it would cost them in some aspect and 10% of the room was actually happy and wanting to do the right thing and love the information. And we've kept the conversation going since then. But it tells you that we have a lot of old dogs that don't want to change, and that's a big part of the problem here.

# Dave Asprey (<u>00:41:32</u>):

It's kind like how in the old times before we had the internet, if you wanted to create change in a field, you just had to wait for the old generation to die. And that's why human progress has been so slow. It was that way in medicine. You get these younger doctors who figure out something new that doesn't match. One of my favorite examples there is the head of the Karolinska Institute, which is one of the top probably three medical schools on earth, waited until the year he retired to release a massive highly technical textbook he'd been working on for years, showing that the body is electrical more than its

chemical with photos and studies. And he says at the beginning, you know what? I didn't publish this because I would've lost my job, but you said that 40% of the population has environmental mold sensitivity. How do you know that's 40%?

### Brian Karr (00:42:30):

Well, if you look at the number of how many people are here in America, the 375 million people, you start to look at how many people have been diagnosed with Sears autoimmune diseases and disorders, Lyme disease. It's a third of the American population, and you start to backtrack those numbers and you say, what do they all have in common? Well, they all seem to be extremely sensitive to mold, and you start to ask yourself why?

### Dave Asprey (<u>00:42:59</u>):

Well, it is absolutely well known in the mold survivor community that once you've been exposed a few times, you can feel it. Do you have an idea of what the mechanism of action for the sensitivity is? I think I know

#### Brian Karr (00:43:14):

It's really interesting because after seeing so many people develop this sensitivity, what I think is actually happening is I think that our bodies are very smart creatures, if you will, and when it knows that you're in a situation that is very similar, like a stimulus response mechanism I think is really what's happening. It knows that if you look at fish and other animals out there, there's a stimulus response. If they get hurt in a similar situation and they're in that similar situation again, that they'll have some sort of heightened sense of awareness. I think that's happening for us too because there's a lot of trauma that comes with this. So even if we get out of mold and get better, I think that you're going to always have this sense of, this place is dangerous. I'm not going to stay here too long. And I think some people get scared of that. They want to feel normal again, but this is a new normal. This is you being intuitive. This is you having more knowledge than you've ever had before regarding the subject, and this is you making sure you never get back to that point. That was such a traumatic experience for you.

#### Dave Asprey (00:44:26):

It's not just mold though. I promise listeners that we are going to talk about air quality in general. Formaldehyde is an issue. My former wife trained in medical school on cadavers and she breathes so much formaldehyde that she got sensitized to it probably via mast cells, come to think of it. And from then on, whenever we would go somewhere that had high levels of formalde, like a mobile home or something or an rv, she would just get severe reactions like disabling reactions, like drops in blood pressure and stuff like that just from formaldehyde. Tell me about formaldehyde or other VOCs and other toxins that are in homes and in home air specifically.

## Brian Karr (<u>00:45:08</u>):

Yeah, so formaldehyde is a big one mainly because everything that we buy these days comes into our house in two days. We have no idea where it came from. And a lot of the countries that we buy these products from don't really regulate formaldehyde nearly as much as let's say Canada for example. And so a lot of our stuff contains high levels of formaldehyde that perpetually off gas into our environment, essentially creating these tiny particles that we breathe in with every breath that we take. And this is everything from baby furniture to wood floors, you name it. So all of the stuff we fill our house with, unless you specifically know to get formaldehyde free versions of things, you're going to have it. I'm

pretty sure even there's formaldehyde in the magical eraser. I mean, this is the kind of breath that we have here and it can create a lot of issues. I mean, I once saw this woman, which was in Brooklyn, New York or queens or something to that effect, and she had literally red skin, head to toe crazy rashes and stuff, and we found just crazy levels of formaldehyde to replaced. You also have VOCs. It's, it's almost like the cousin of formaldehyde because if it doesn't have formaldehyde, it's probably got some other VOCs you don't want,

### Dave Asprey (00:46:25):

And that's a volatile organic compound. What are other examples people have heard of?

### Brian Karr (<u>00:46:30</u>):

Okay, so with volatile organic compounds, probably the best thing to register this would be when you paint. So you paint a room, that smell that you're smelling is actually the VOCs that are coming off the wall as it cures. There's anything with adhesives. Bonding agents is going to have VOCs, so maybe you got a brand new vanity from some store yesterday and you're installing that. Well, they're going to have adhesives that glue it all together. That could be off-gassing for a while. Caulking silicone. Things that we use inside of our homes all the time can contain high levels of EOCs, plastics, lots of plastics and stuff like that can off gas carpeting, carpeting has high levels of EOCs if you put in new carpeting. So it's kind of all around us and creates another barrier to poor air quality or having good air quality. And then with that mold also produces VOCs called M VOCs.

#### (00:47:31):

So if you have mold and bacteria and VOCs and formaldehyde and all the amazing things that we have out there in the environment, we really create this situation where it's this perfect storm. We're overloading our immune system and we're paying the price for it. People often ask me all the time, why is this becoming such a problem today? Mold's been around forever. We've been breathing inside of spaces forever, and I think we have a little bit of amnesia there a little bit because obviously there we've been living a little bit longer here and here. Actually last year was the first year that our longevity declined. When I look at this, if we look at the history of what's going on here, back in the 1970s, we had Richard Nixon in office, Richard Nixon and China and Russia, they're all getting together and they start this feud about energy efficiency, and this is where I think we really just, we executed before we looked at consequences.

### (00:48:35):

Since then, we have made several strides forward in energy efficiency. And like you said earlier, I mean we're absolutely trading energy efficiency for health right now. And so it doesn't matter how efficient we are if we're all dead, when you look at all of this, it's the craziest thing. We seal these buildings with spray foam top to bottom. It's the new thing. Why spray foam? You get the better R value per square inch. With that being said, there's no fresh air exchange. Our homes have historically breathed really well. You used to have these walls that would actually, they're like a balloon frame, so you would have a wall chase in between your interior and exterior wall that would go all the way up and down. They got rid of that, we're starting to build them tighter, and then it just went worse. Switching from regular installation like fiberglass or wool to spray foam, and even in attics, if you understand building pressurization, air is going to rise.

#### (00:49:35):

So when humidity comes into play, because it's summertime, let's say that hot humid air is going to rise and it's going to get trapped in the attic. And typically when you look at these homes the way they're

designed, you got no ventilation in the attic spray foam, so all that humidity just stays there and just fills the house like a balloon. And then what else do we get? Well, mostly our HVACs are in the attic in these designs, and so now we get mold growing and bacteria growing in our attic. Now it's sucking into the HVAC and spreading out across the house. And then we wonder why we're not feeling so well and nobody's even talking about it as a big problem. It it's a very small few people like you and me right now.

### Dave Asprey (<u>00:50:21</u>):

In my own past, I had actually brain damage from toxic mold, but it wasn't just that because some toxic molds make xenoestrogens that are a thousand times more estrogenic than the kind of estrogens that we make in our bodies. I had a really hard time losing weight, a hundred pounds. I had to lose. I worked out, I dieted. I mean, I went to the ends of the earth, all of my effort and willpower, and I believed that it was because I just didn't have enough willpower to eat even less. I came across research on reone. Is that one of the mold toxins you've worked with?

Dr. Francesca LeBlanc (<u>00:51:04</u>):

Yeah.

Dave Asprey (<u>00:51:05</u>):

Talk to me about what that does with weight gain.

## Dr. Francesca LeBlanc (00:51:07):

I mean, estrogen dominance is one of the leading hormone imbalances that complicate weight loss for women. And if it's root cause is mold, right in this mold family, it's an emotional rollercoaster for women because when you talk about the eat less exercise more and all of that, when we get to this root cause of mold, this is a journey. This isn't a, we're going to apply these binders and in three weeks, four weeks, this is what you can expect. I mean, sometimes this is a three to six month process because we have no idea how long or how much of this mold has been in the liver and creating all this inflammation, brain inflammation. That's kind of what you experienced as well. It's a journey. It's frustrating and it is so closely related to estrogen dominance, definitely here in the south and the other moldier states like Florida and Texas. So we see a lot of that.

#### Dave Asprey (00:52:09):

When I did the documentary on toxic mold, and guys, if you're new to the show, you might not know moldy movie.com. It's a gifted, it's a professionally made documentary. The soundtrack is actually from the lead keyboardist and vocalist for electric light orchestra. It has its own soundtrack. And it was as professional as I knew how to do at the time. And I traveled around the country and I talked to leading experts in and people were affected. And what you realize is that we think of the south as mold bomb mold vi, and it's consistently moldy because it's just wet. But the mold there usually isn't that bad. I mean, the mold levels are there, but the individual species aren't that bad. But if you go to where I grew up in Albuquerque or you go to Phoenix, that is desert mold. It's dormant until there's moisture and then it's hyper aggressive. Everything that desert wants to kill you, rattlesnakes and scorpions because it's a hostile environment So if you go to Moldy place in Phoenix, it will trash you more than a moldy place in Louisiana except for New Orleans. New Orleans has its own unique species. After all the chemicals got mixed around. I generally don't want to go to New Orleans because you're just going to get sick, even if you're highly resilient like I am now, because there's just so much mold and it's mutated. Like Spider-Man meets mold. Do you see that as well?

### Dr. Francesca LeBlanc (00:53:28):

Yes. I don't go to New Orleans. I do not. I have to go to New Orleans. If there is a family function, I am literally, I'm pretty resilient as well, but I cannot wait to get out of there. I start to feel it. I really do.

## Dave Asprey (00:53:47):

The guy who did a lot of the air testing for Moldy movie, let's see, this is John and Laura Ra from American Air Testing. If memory serves, they owned a bunch of rental properties and in New Orleans and after of the hurricanes and all, they just said, we're going to exit that area. We can't keep 'em mold free anymore. So we are changing the environment around us with things like glyphosate, which in studies makes mold worse. And just with things even like radio frequencies, like EMFs, you probably wouldn't know this if you're listening to this, but a lot of the citric acid that's in food comes from aspergilus fermentation, which doesn't mean it's necessarily bad for you, but how do they make this modified form of aspergilus produce more of its toxin? The toxin being, in this case, citric acid. They expose it to radio frequencies in mf that pisses off the mold, so it's more toxic.

### (00:54:42):

So I think we've got something going on in the world around us where you just don't want that. If you're near a military base, you've got all the metal pollution and go to San Diego and breathe the mold there. That's the worst place in the country as far as I can tell, and that's where the most radar is from all the military stuff there. So there's something going on where our hormones are being disrupted by mold, and if you get mold, you're much more likely to get candida. Talk to me about candida and what that does.

#### Dr. Francesca LeBlanc (00:55:10):

I kind of explain to my patients. If you think about the way that the gut and the liver work a lot like your kitchen sink, right? You've got your sink, that's the gut, and you have your garbage disposal. That's the liver. And if one is clogged, how well does the other work? So we have to kind of understand even if we're going to go through a mold protocol, that we are also going to go through some sort of intestinal permeability protocol at the same time. For that reason, candida is if not the most common gut fungus in women. It's overlooked because traditionally, the symptoms that would be normally associated with, let's just say yeast infections aren't there. It's not that anymore for women to come to the realization that we have a fungal issue when they don't actually have those traditional textbook symptoms. Again, it's a journey, it's a process, and it's a little bit of a roller coaster because sometimes things have to get a little bit rocky before they get better.

#### Dave Asprey (<u>00:56:22</u>):

There's also a major link between candida infections and PCOS. They go together and there's also a link between, oh, a plant-based diet and PCOS because it turns out that if you eat a lot of these plants that are full of oxalates, which I read about in my most recent book, they can also contribute to PCOS. So you end up getting candida, which raises oxalate levels and causes inflammation, and then you get extra calcification there because you're eating spinach and kale and those things you think are healthy. And then you're wondering what the heck is going on. Well, you've got toxic metals, you've got candida. If you have toxic metals, the body will allow candida to grow because candida will store mercury instead of putting it in your brain. So your body's just swimming in toxins, just saying, well, let this bad thing happen, not as bad as this other bad thing, and it's trying to balance all this out. And at the end of the day, you're anxious and you feel like crap all the time. Your hormones don't work and you're infertile. And this is actually the story of living in the US right now.

### Dr. Francesca LeBlanc (00:57:25):

Yeah, well, yeah, because you jump to the diet, you panic, you're desperate and you say, well, I'm cutting out all meat. I'm going and then wrong direction. I did that. Okay, so I'm one of them. And then I was vegan just like you and no kidding. Yeah, I was desperate. I mean, I was sick and of course for six months I was skinny and it was great until my hair started to fall out.

# Dave Asprey (<u>00:57:52</u>):

Mel nourishment is great for the first month.

## Dr. Francesca LeBlanc (00:57:56):

It's all fun and games till your hair starts falling out. And that's the truth. I think that it is what is happening in America. We think that it's immediately dietary. If I take this all encompas, say, follow this protocol, everything's going to go away. And sometimes it makes us sick.

## Dave Asprey (00:58:18):

I had a recent guest on the show is talking about the exposure of dust through the skin, and we know now some of the peptides, they enter the skin better than via injection just by using a cream, put testosterone cre on. And most mold toxins are very small cholesterol like molecules, so they're small, they can sleep through the skin. So I would say having no dust around your house is probably a really good idea. You're going to either breathe it or roll in it, what happens. But the percentage there, I don't think we know. And then eating it, I quit coffee for five years. I would feel anxiety when I drank moldy coffee. And that's the one crop in the us. There is no standard here, but there is a standard in the rest of the world. So they send the moldy coffee to the US and then we drink it because illegal to sell in Europe or Japan.

### (00:59:05):

So that's one where because I'm sensitive to ot, I can just feel the difference and I, I'm kind of afraid to drink normal coffee, and I still, every now and then I'll go out and I'll have a cup of something that looks good and two hours later I'm like, God, I just want to take a nap. Like, oh, great, I got molded again. So I know we get exposure, and I found some studies on the amount that's there, and so how do we bind it? How do we deal with it? You can't have zero mycotoxins in your food unless you're eating probably grass fed, grass finished beef, which has very little because whatever they're exposed to from soil, they filter out. So other than that, you're probably going to get some and you probably can handle it. But what I find and what I want to go deep with you on is that there are the toxins that directly inhibit mitochondrial functions. They lower your energy and there's ones that cause damage to the lining of your nerves. And then there are some that mimic hormones like the xone I talked about before. Xone is sold as a pharmaceutical drug for ranchers because cows get fat on 30% less calories. That means if you're in a house with a xone forming species and you're getting fat for no reason, it's probably not because eating too many calories, you're being exposed to an environmentally produced toxin that makes you fat. How do we know which of these different toxins anyone's dealing with

### Dr. Neil Nathan (01:00:22):

Don't? The whole concept of mold toxicity is relatively new in medicine. We've only really started to talk about it 20 years ago, and like Lyme disease medicine has not caught up with it. So the vast majority of physicians out there would not know what mold toxicity was because they've not read about it, they've not studied it, they're not even aware of it as an existence. So it's a huge problem, as you well know, and

it isn't being studied in the way it has to be studied. So do we need a whole lot more information and quickly? Absolutely. Is that immediately likely? No.

## (01:01:10):

Our first job, Dave, I view this as my role right now is basically to wake people up to the existence of mold toxicity. Once the world, the medical world begins to embrace it, then we can go, oh, this is something big one that we've been missing. Now we have to really study this, but until our medical agencies that do research, NIH and CDC and start looking at it until they embrace it, patients really need to learn what they can maybe from us about what this is and our best guess as to how to treat it and our best guess as to how to live the healthiest life we can in this very polluted world that we live in.

Dave Asprey (<u>01:02:02</u>):

What do you do to protect yourself from toxic mold?

### Dr. Neil Nathan (01:02:04):

I've had it so I can speak about it as someone who isn't just studied it, but I've studied my body with it. So yes, it's a very real thing. First of all, just for listeners, I eat organic as totally organic as possible. I have HEPA filters that operate in my house. My house is newly built and has an airflow system in it so that it, it's not a tight box that's about to explode with mold. It's got that flu system going for it. Part of my answer here is mold affects us primarily by creating a type of inflammation that our immune system can't control. And so part of the issue is how do we get our immune systems to operate optimally? So the more complicated answer to your question is, the other things that I do are also to help my mind and my spirit, my emotions and my energies operate at a higher level, meaning I exercise regularly. I walk my dogs at least two miles a day. I do Tai Chi Pilates, and my spiritual practices of meditation and other things all are designed to make my whole being as healthy as I can so that my immune system is in an optimal operating mode if that's the case. So I think that's a very important part of what you're asking right now. I live in a small coastal town, so the air I breathe is sea air. I've made every effort I can to live a really healthy but happy and spiritually attuned life.

Dave Asprey (01:04:12):

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