Brain Fog and Environmental Toxins: What Your Home May Be Doing to Your Brain Transcript

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Podcast Introduction and Mission

Your genes hold the answers to your family's overall health. I'm Dr. Paula Kruppstadt and on the Get to the Root with Hope for Healing podcast, I sit down with experts in genetics, functional medicine, and family care to explore what's really going on beneath the surface so you can stop guessing and start healing.

From personalized insights to practical tools, we bring you whole family wellness that starts at the root. So today we're talking about something that I believe just doesn't get enough attention when it comes to brain fog and behavior, which is environmental toxins.

And before anyone panics, this isn't going to be a huge episode where we like dive into the nitty gritty. This is really just bringing an awareness of what can happen or maybe an And so, what are some of those things that we're…

But before we dive in to all of that, can we just talk a little bit about the environmental toxins and what does that actually mean for day-to-day life?

When we talk about environmental toxin, that is a very broad, broad thing. So, we have things like exhaust.

What Environmental Toxins Include

Okay, you're filling up your car with gas. There's exhaust. We have, depending on where you live in the United States, if there are refineries, there's things that we're exposed to there.

And we also think about the things we might be exposed too in an environment such as getting a tick bite. The environment gives you a toxin. And for example, if you get Lyme disease, there's a toxin associated with it and then inside your home.

But also environmental toxins are the things that you put on your body as personal care products and the thing that color like dyes that are in our foods and that our additives that actually toxic.

So it's really broad spectrum question. I love that. Okay, so you mentioned the home, which is kind of what we want to unpack right now, or maybe like the buildings we walk into.

So maybe not in our home but our schools, our workplaces. What does it mean to kind-of hone in on environmental toxins within our homes? Okay, well, if you're in your home, there's all different kinds of toxins.

But if it's water damaged, it is not just mold, but it can be bacteria and certain types of bacteria that are like from sewer gas, those kind of things.

And also another bacteria, that can grow on your skin. You inhale it. It can be in your gut and in you lungs and up in nose. Then also when you think about schools and you're going to your child's school, you are walking down the hallway and see a cone on the floor with a puddle.

You look up above and there's a stain on the ceiling tile or your child attends classes and they're in a portable. Portable buildings can be very difficult because they are flat and it tends to pool water.

So those are some of the things as far as school and the environment. It's not just mold, but it's bacteria and that can a huge player in environmental toxins.

Wow, that's really, really interesting. Now, because we really want to dive into something that people really struggle with right now, which is brain fog, a lack of focus and attention.

Toxins in Homes, Schools, and Buildings

Why is the brain so susceptible to being like targeted and really being attacked by these environmental toxins? I'm so glad you asked that question because if your immune system doesn't have the inflammatory markers to deal with these foreign invaders, then you're up a creek without a paddle.

So we're all about genetics here, but you've got to drive the inflammation down, meaning you got turn it off. That's step number one. But for brain fog and that kind of a thing, you have got deliver energy into the cells.

And that's all based on our genetics. But when we think about the brain and the body and inflammatory environmental toxins, about 25% of the population is unable to identify a foreign invader and then to get rid of it the right way.

And then there's a whole cascade of events that can occur just because the air is dirty in your home. So, is that why you can have a family and a house and only have three people?

So it's like a, family of six and, only three, people are exhibiting symptoms. And how would, how do we kind of work through that? Yeah, that's right.

I mean, you can have people that are perfectly healthy and other people who are having trouble breathing, have a lot of allergies, a lots of sinus problems, and have tons of brain fog.

They can't think straight, their skin is erupted, or their gut is not working right, they're tired all the time. So you need to determine if you are vulnerable to this environmental illness and it's called chronic inflammatory response syndrome.

There's two excellent websites. One is called survivingmold.com and the other one is CIRSX. COM. We also can provide people that maybe direct message us with a link.

to a webinar done by two excellent physicians, a friend of mine, Dr. Scott McMahon, pediatrician, and Dr Sandeep Gupta. He's over in Australia. And it's about children and mold illness.

And so it's something that is going unrecognized that causes people all from their environment and they have no clue because all their life they've been exposed to these environmental toxins and had no idea.

That's crazy to think about, that you could be having this like toxic burden, toxin load, which is like super popular here, but that it's affecting things like your brain and being able to have like a name to kind of call it to be able.

Why the Brain Is So Vulnerable

How then, because you kind have talked about this a little and maybe you can impact this little bit more, is how do environmental toxins interfere with the brain function?

Like, so what are they actually doing to the That is an excellent question. About 25% of the population has a genetic vulnerability to this biological toxin and environmentally acquired illness.

And if they're exposed to a certain amount, then this pathway is activated or triggered. So when you're exposed to this toxin, the immune system is supposed to be able to recognize it and call out the alarm, hey, we're on fire.

But if the system has a broken off switch where it can't turn down that inflammatory trigger, then you just stay on fire and then a whole cascade of events occurs.

It affects the immune system, so you start getting sick and have all these problems, then it can affect your hormones, and it then can effect your neurologic system.

So all of these things tie together, like insomnia, pain, poor gut function, getting sick a lot, or then eventually not getting sickness, but you feel like crap.

And then your hormones, like a lots of adults will say, well, I have no sex drives. It's like they're not the right age for that and they don't know why.

But they have all these other things and nobody can put the pieces together. They're always in pain or they are severely fatigued. So when you're exposed to the environmental toxins, the immune system can't turn it off, and you just keep accumulating these toxins until you can take them out somehow.

Okay. And so, and maybe it's just you said, you mentioned something. So I'm trying to understand. Does that happen in like any particular order or could any of these symptoms happen to be the first symptom that someone would experience?

Or is there any, does it really just depend on the person? What presents first? For example. Yes. It really does depend on the person what they've been exposed to.

You know, it's so unique, but there are various symptoms that are grouped together that correspond with this illness.

Genetic Susceptibility and Chronic Inflammatory Response

And based on age of the patient, little children tend to get well much quicker than adults do who've, who have been expose for a long, long period of time.

That makes sense. Okay, then the question I have since it can really be a starting. So for people who are listening here, they're probably listening because right now brain fog is their most debilitating symptom or maybe they are really wanting to fight and attack against that.

The question that I had then is can toxin exposure present itself with things like ADHD, anxiety, emotional dysregulation or the big topic we are talking about which is brainfog?

Absolutely. So environmentally acquired illness effects can affect every system in the body. And the biggest key is fatigue, physical fatigue but mental fatigue.

That goes for kids with ADD, ADHD, and you say, but they have a lot of energy in their stimming. But if you look at these kids after lunchtime, it's like their brain checks out.

Okay, they're very, very emotionally labile. It's they don't have the energy to process and compute. So it can show up with you run out of gas or you're having to drink coffee all day long to keep your brain going.

you know, and then also just physical fatigue. And you can also be very, very tired but wired and have trouble going to sleep. But then when you do go to asleep, you wake up at two or three in the morning and that's one of the hallmarks of this environmentally acquired illness.

Then if you are able to go sleep, when do wake you don't feel refreshed. That's because your natural melatonin production goes down. Wow. Well, that's really important that you really showed this new way of looking at things, meaning fatigue isn't just this physical body thing, but it could be like a brain fatigue.

Meaning like, I have this weird kind of jittery energy, my brain can't do what it needs to do or focus on the task at hand. which can feel like someone can easily feel really self-deprecating in this being whether that's lazy or just a lot of self doubt comes in.

I feel and that is really consistent. Have you heard that consistently within the patients you've treated and how you have gotten them through that? A lot of people with this too need to eat very frequently and it's because they don't have the ability to take glucose, which is energy, and pull it into their cells.

So they're tired, they have to ate frequently, And they are beating themselves up and they just don' understand what the problem is. but it's a symphony.

Your body is a syphony the way it works. So chronic inflammatory response that leads to brain fog.

How Toxins Affect Brain, Hormones, and Energy

We've treated people that have come to us from other providers and we've done the precision genetics and identified some other vulnerabilities like exactly how can we modulate the immune system to dial down inflammation and then also how come we help their cells bring glucose in.

And that's called autophagy and intermittent fasting isn't for everyone. I mean, if you don't have these receptors, so this brain fog and this fatigue, our blueprint really provides this great guidance for people that are struggling with this.

That's the place to start. Well, and it really is because there for people who are and I'm going to use a phrase that we haven't quite discussed yet, but for other providers who use the Shoemaker protocol and do all that, which there are a lot of amazing providers out there.

I just want to make sure I'm hearing you correctly. What you're saying is this genetic piece could be what's missing in that connection point where you are doing all the steps and you doing everything right, which is probably one of the most devastating things to hear when you in a prider.

You're doing every right. We just, there's this other piece of how we can target the very specific things that are happening in the body. Is that what you saying?

Yes. Yes, so Dr. Ritchie Shoemaker has the Shoemaker protocol. And it's excellent. However, there are things that you can use to help those people who are not improving the way that they should, other modalities.

So the precision genetics is another piece. Other people use different things. You can red light therapy, you could use various peptides. to help the body.

You can use ozone therapy. Some people talk about hyperbaric oxygen therapy, but it's where you utilize it, the timing and all of those things. I love that.

Okay, so you mentioned frequently that mold is everywhere, and so it is not the whole point of being afraid of going outside, But there are very specific molds that we're looking for.

Can you talk a little bit about that? Yes, before I talk about that, let me just talk this mold is everywhere. When you're outside, the wind blows, and we're not talking about allergy to mold, okay?

part of the adaptive immune system where you build up antibodies, you know, like if you have an allergy test. However, when you're inside the interior of a water damage building where the humidity may be the same and all you has to do is get above 50% or have a Water Intrusion that's not addressed properly within 48 hours, drywall has dry mold spores in it, so all you have to do is add water.

So it's just important to not freak out, but if you a water intrusion, address it within 48 hours and get the right people in there, dry it all out and cut back your dry wall two feet and and get it remediated appropriately.

But there are five species of mold that can make people sick within a water damage building. Two of them are very heavy. One is everybody's heard of toxic black mold.

That's called Stachybotrys chartarum. There's another one called ketomium globosum, those are both very, heavy molds. Ketomia makes people really, really tired and it's associated with narcolepsy.

Now, there's three other molds, Aspergillus penicilloides, aspergilus versicolor, and Wallenia cibi. The aspargilla species many times we'll find around windows where there is a water intrusion in the air conditioning system.

And the HVAC, the Air Conditioning System, can have bacteria growing in there too. So you need to make sure that your AC is where it needs to be and properly taken care of.

Yeah, absolutely.

ADHD, Anxiety, and Fatigue Patterns

Okay, so I think this is a perfect question then with the indoor air quality and taking care that first and foremost, like how important is it that the end or airquality is optimal and what are some ways that someone can do that maybe without replacing their whole entire unit right now because that's not financially doable.

And not everyone can move out of their home. The first step in the protocol is get out the exposure, but if you're stuck, I love one particular type of air purification system and they have little units that are based on the square footage and it's called air oasis.

I Love air. Oasis we have units all over our home and and in our office, and it purifies the air with three things. It has a HEPA filter, but Hepa filters don't help you so much with the tiny microbial volatile organic compounds that bacteria and mold and that they produce.

Those are a thousand times smaller than what a HEPA filter may pick up. So what comes from mold and bacteria in a home like sewer gas bacteria or potentially F-15omycetes, which is another one, we recommend people test for that.

So it's the HEPA filter and then it has ultraviolet light and it then has ionization. So, it hits those particles that are in the air and you're covering environmental allergies with the Hepa filter, but you are getting those other two pieces.

And that's beauty of the Aeroasis units. I just love those things. They're great. You can even take one with you when you travel. I know that's what we do because we never know.

We always do our best to look for better hotels or staying with that, but you never really know and so having one of those in and we just keep it by the side of my bed to ensure whenever we're going to hotels.

Okay, so you were talking about the air purification system and I knew we talked about environmental elements that are outside of that. So somebody has this condition and they're already heavily loaded with toxins, they're heavily-loaded with the environmental burden, how do plastics and fragrances and cleaning products also maybe possibly make things worse and affect the nervous system differently?

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That's the premier and proprietary genetic panel that Fogran has allowed us to create. Yes, if you have very poor detoxification systems, meaning your body doesn't make enough glutathione or it's faulty.

So glutathiol is something called the body's master antioxidant. There's certain labs and things that we can check if someone's a patient, but that's where that genetic panel comes in because it tells you about that.

Genetics, Precision Medicine, and Treatment Gaps

Of course, we're all about how genetics guide our lives. But there are also people who get migraines. It's called multiple chemical sensitivities when they're exposed to all these things.

This is actually something that's in our genes and shows up. So when this occurs, you really need to stop using those products because it overall starts filling your cells with all these toxins.

And after a while, your cell's fill up with this garbage and you get to a tipping point. That's how cancer develops. You're using Bed Bath and Beyond.

And you know how when you walk into a place and you're assaulted by that axe that some man sprayed all over his body, it's just sick and disgusting. It's causing cancer and killing you.

So, and it tends to cause migraines and make people sick. And so that's where I'm like, come in and get some IV therapy and wash that crap out of you.

But you have to have really good bowel movements too. So also the products that you put on your body and in your it just adds to that toxic load. You need to work on cleaning it out.

So would you say that's also a step that people can take whenever they're experiencing things like you're not just cleaning the environment that you live in.

You're also cleaning that things that your exposing your body to or your kids bodies to. And would do you think that that could help kind of again move the needle in the right direction.

Absolutely. And so you can use liquid glutathione or squirt glutatthione, or an adult can take capsules of glutothione to start pulling that out of your body.

It will also help clear out the colon. So don't take a huge amount when you first start, but that will help. Glutathion is so easy to do. and to get moving, get the garbage moving out.

Some people talk about something called N-acetyl-L-cysteine, but, you know, reduced L-glutathione is a very safe place to start, and anybody can do that.

Perfect. So if somebody was maybe looking at glutathion but had heard of NIC, why would people recommend NAC in conjunction with glutothione? or one instead of the other.

Exactly. Yes. If someone has a lot of neuropsychiatric problems, like they're highly anxious, I really like NAC because there's a pathway in the body, several, it's called the quinolinic acid pathway.

and the kynurenic acid pathway, which has to do with neurotransmitters. And when you're in fight, flight, freeze, or fear, many times NAC is a better thing to use to kind of shift you back over and your body starts to make more GABA on its own.

Don't take GAB if that's happening because GABC converts back to glutamate. Glutamates makes you crazy. So got it. N-A-C, yes. potentially if there's a lot of anxiety or Glutathione more with constipation and just exposed to all this stuff.

Mold Exposure and Indoor Air Quality

You get a horrible headache when you're exposed the big bad guys. I really love how you can almost target two different systems though. So you have this like what you are presenting with which kind of talks back to what we were talking about which people can present with very different things.

Brain fog may be one of the things that if you brain fog constepation we have these glutathion mixture that you like you ready to pull out those toxins.

Your body is like is excited to get started on that. But if your brain fog also comes with this anxiety, like this like deconstructive, negative thinking and racing thoughts, you can start this other way and you're still targeting the system in a beautiful way.

So thank you for unpacking that for us because I hear about it a lot and I think people see about and they see a a especially I post-COVID that became a really big supplement, but really telling us how we can use it and when it's best to use it.

You know, I just want to say something. For individuals who are listening to this, if you have a friendly doctor and you ask them to draw a homocysteine level, homocysteines breaks down through a process and is converted ultimately to glutathione.

If you do a homosexual test on the blood and it is less than eight, really you kind of want it around eight. If you're all the way down and it's like four, you are going to need glutathione and or NAC for the rest of your life.

And then if it is a child, we can apply that topically potentially to help with glutothione, but orally is really where it at and you want liposomal. for or less, oh my gosh, that is catastrophic and you've got to get on some glutathione to really move the needle and change things.

I really love that, especially because this kind of goes into what you're knowing, because I know at Hope for Healing, we believe knowledge is power, which is the reason why precision genetics is also so important to us, is because we need to have a working knowledge of people's bodies.

So one of, like I knew we talked about the Wellness Blueprint, an amazing multi-system, right? So you'll learn so much about yourself. But what do you think some of maybe the first, if someone's not ready to pull the trigger on the Wellness Blueprint, what are some the most highest impact panels that someone can do to help lower the inflammation in their body or help their brain?

Well, there's the autoimmune inflammatory panel. It's a core panel of the Gron and someone could order that from us, review it with our genetic provider anywhere in the world.

You don't have to be in this same state. And that can move the needle. There's multiple systems, and some people are just so inflamed that if you can't put out the fire, then you cannot move forward.

And, that's imperative. That's what you see with brain fog, long COVID. and environmental toxins, an inability to dial the inflammation down. And that can be for little children, too.

There's things that you can put on topically, of course, as a board certified pediatrician, but as functional medicine expert that also treats individuals of all ages as consultant.

Air Purification and Reducing Household Burden

This is so important when our children can't take things, if they can have it applied to their skin or absorbed through their scan, or if it's a liquid or liposomal or in a powder, something like that that can help them.

Okay, so I think with a lot of these things, people can get really overwhelmed or concerned that this is now just the rest of their life. So the question we have here is, are focus and brain fog related issues and toxins reversible?

Like, is there hope? Absolutely. And shame on anyone who doesn't give people hope because yes, this is reversible. So case in point, it's a pain point for me.

When I was a child, my dad was in the military and we moved to different military homes and they thought that I had juvenile rheumatoid arthritis. Well, it was the various homes that we were living in that were severely water damaged.

Who would have thought? I was also a list maker, Pan's Pandas, and it's like, are you kidding me? So then brain inflammation. Then as an adult, I in another water damage building, And I developed suicidal ideation, severe depression, morbid obesity, and that was biotoxin illness.

And many, many people who figure out that they've got that, they got auto-immunity like MS. They're severely fatigued, arthritis, or they just don't understand why.

Or they get COVID, long COVID and it took them down. People who have long COVID are almost all part of the 25% of population that has this genetic vulnerability.

And there were things within COVID, the manipulated, genetically manipulated virus that hit the world that triggered this. There is a way to get well and to come out of this, so yes, There is hope, there's always hope.

I really love that. Okay then, so since there is Hope, maybe this is a great opportunity for maybe you to debunk or to have one myth about environmental toxins that you'd really like to clear up.

That people believe this about environment toxins or believe about mold illness. You'd like an opportunity to say, here's just a little different way to look at it or here is some clarity to that You know, it's really funny, I can't think of a myth that I would want to bust, but I will say that as far as encouragement goes, if you've gotten sick quickly, acutely, you can get well rapidly if your in a clean environment.

I love that. You can recover. So the myth you cant recover, that's a myths right there. Yeah, so the longer you've been sick, the long that it takes to get better.

But I'm so encouraged. I've working with a patient that was in a water damaged home for around 15 to 18 years. And we finally got this person into a clean environment.

And they took something to bind these toxins from their body, and they are prescription binders.

Glutathione, NAC, and Detox Support

Other bindings don't work very well. I'm just going to say it how it is. If you can't get into a physician who treats this environmental illness, that okra, believe it or not, there is a product called the Okra Pepsin.

It has four binding sites, like a prescription binder called colestyramine has. And Okara Pepsin is only about 16% as effective as colastyramin, and then there's another one called Wellcall or Oh, golly, Wellcall is the trade name.

I have trouble saying the generic name, but something is better than nothing if you feel terrible and you can't get into someone. So this okra pepsin can be taken with or without food.

And a lot of times people have very sensitive tummies too. Exactly. Anyway, you CAN get better. We've been working through the Shoemaker protocol. We started this person on an intranasal peptide called vasoactive intestinal polypeptide, and they are so close to remission.

It's so encouraging. So it's been about two years we're trying to restore normality to all of these individuals' biomarkers and things, but we are almost there.

I love that. Well, yeah, there's a lot to unpack there, right? So we just love hearing success stories and hearing people who've taken their journey and not given up because it is not like a trending up journey.

It is an up and down journey, and so kudos to that patient who has really dived in and gotten in a clean environment. But you did mention something that I do want to go back on, which is you were talking about all the mini binders.

And yes, prescription strength binder is 1000% the way to, but maybe for listeners who don't have a certified

service provider near them or someone who is equipped or they have tummy troubles because Cholesterol can be really hard on certain people's stomachs.

You've created, you've talked about this okrapepsin, right, and being maybe like a first start. And the question I have is like, to start, if that's where they want to, start is that sometimes a good place to see if it starts to move the needle a little to maybe see we're heading in the right direction with this?

Yes. It's not very potent, but it could help. So it's called okrapepsin E3, and we can put more information about that. But, you know, an adult, a teenager, two, three times a day, preferably away from food, helps the gut and it can help escort some of that, those biotoxins, mycotoxin out of the body.

It's imperative to keep pooping so that they're not reabsorbed and that can be a problem. The other thing that would really, really help because when you have this biotoxin illness, it's as if you're rusting your cells from the inside out.

You're tired, your skin may not be doing well, your brain isn't doing, well because our cells are surrounded by fat and these binders bind to bile salt.

Testing, Hope, and Recovery Stories

And so our bile salts help us absorb fat soluble vitamins, K, E, A, and D. So I always recommend that people take a good form of fish oil generously with food and there's certain amounts for children, certain amount for adults and not all fish oil is the same.

You can't go to Costco and get what you're going to get from impurity wise where you are not getting adulterated with heavy metals and you want the right ratio too.

So we have pediatric and adult dosages of EPA and DHA and we'll put those in the show notes for people. So an excellent fish oil, take them with food and then this binder and that's where you start.

And here at Hope for Healing, yes, I'm a certified proficiency partner for the Shoemaker protocol, but you know, there's lots of ways to skin a cat and if you've got another infection at the same time.

You know, all four of my children developed what we call vector-borne illness, either Lyme, Barpebesia. There's biotoxin illness associated with that, brain inflammation, and also SIRS.

So, you know there's so many things. This is complex, but there is hope and people can get better. One of my personal myths that you bested for me was that I wasn't crazy.

Like you go to so many providers that, you do kind of start to feel like maybe they're right. Maybe this is in my head, maybe this pain I'm feeling is fully like.

not actually something or maybe I'm just being dramatic or these migraines oh well they're not that bad I guess but like I can't function right and so I just remember coming in and dealing with several of our providers and I've had the benefit of doing that and just I've come and I'm like, hey, this kind of messes with my stomach.

And the first thing they don't say is, well, you're just going to have to get used to it. It was like well let's see what else we can do. Let's, see, what, else, we, can, do nope that's not in your head.

let,'s work on something that you can. Do and to find actual steps and so that, is one of my favorite myths of us is when people come in and they're like I just feel crazy.

I, am like you are not. They'll touch you, you're not crazy. I'm really grateful you brought that up. That's something that really is, it just makes me angry.

It's that you are not validated. And part of my story, which moved me into functional medicine, I told a local practitioner that I was suicidal and they doubted me.

You're vulnerable. You share that. And it's like, I didn't know that I was in the throes of SERS. I did not know. That and, you know, to be gaslit like that, and you.

So many of our patients have been to so many different practitioners. we want to hear you and validate you, and you are not stuck. And, you know, that kind of crap, it's like, You don't need to here that.

Exactly. It's not helpful. No, no, It is not. it is like oh you're lying or, we're creating doubt. You do not care about me. you did not validate me, ta-ta, I'm bye.

I am never coming back. Exactly. You have that authority. That is the country we live in. And you have the authority to step away from your medical brighter and choose a different one.

Validation, Hope, and Next Steps

I love that. Dr. K, as always, we are asking for what is that one simple action listeners can take today to support their brain and their child's brain to help fight this epidemic of lack of focus and this brain fog that people are experiencing?

test to know how to modulate your immune system. So I would do the immune autoimmune inflammatory panel. That's the smaller panel, or do The Wellness Blueprint.

And that right there is going to move the needle. You don't have to guess. If you think about the lifelong value of going the doctors for all these problems, my gosh, functional medicine can help people You can move the needle with the genetics as the foundation.

It can change your life like it did mine. I love that. Thank you so much, Dr. K, for your words of wisdom and your word of encouragement and hope as always.

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