Navigating Mold-Related Illness in Children With Dr. Pejman Katiraei

PK

Dr. Pejman Katiraei

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Part of why I love working with kids is they are insanely resilient. And, you know, so many parents come and say, “Oh my God! Have I permanently harmed my kid because of my lack of understanding?” Or my...you know, there's tremendous guilt, because if once you start realizing like, “Oh, holy cow, this could be mold, and I have missed it for all this time,” there's a natural sense of guilt that comes.

KS

Kendra Seymour

0:34

Hello, everyone, my name is Kendra Seymour and this is Your Indoor Air Podcast, brought to you by Change the Air Foundation. Today's episode is all about navigating mold-related illness in children. So, parents, caregivers, anyone with a child in your life that's been affected by mold exposure, or – this is a big “or” –has various health issues that leave you and your pediatrician, you know, scratching your head, not really sure what's going on, then this episode is for you. So, I'm talking children with PANS and PANDAS, Lyme and co-infections, autism, sensory processing disorder, eczema, food allergies, reflux, EDS, alopecia, there's many others. And we're going to talk about how indoor toxins like those that come from mold and water-damaged buildings can affect our children's health, and how you can navigate diagnosing and treating that with your healthcare provider. Because it's hard to navigate, especially when children are involved. Now, I know firsthand what it's like to be one of those parents I just described. So, I wanted an episode that answered some of those questions that I had when we went through this, and questions that might be going through your head as well. So, the perfect person I thought to tackle this with us today is Dr. Pejman Katiraei. Thank you so much for being here.

PK

Dr. Pejman Katiraei

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It's my pleasure to be here. Thank you for creating the space for us to share this information.

KS

Kendra Seymour

1:53

Yeah, and we are very lucky at Change the Air Foundation to have you as one of our medical advisory experts. But for those who don't know Dr. K yet – which I know your patients sometimes call you that – is a board-certified pediatrician who is also boarded and fellowship-trained in integrative medicine. He completed his undergraduate at UCLA and then obtained his osteopathic medical degree at the Western University of Health Sciences. He completed a pediatric residency at Loma Linda University where he stayed on as teaching faculty for over 4 years. Dr. Katiraei has also completed two fellowships in integrative medicine. He is now in private practice in Santa Monica where he focuses on helping children with severe behavioral challenges. He is also working with a talented team to build an AI online portal that empowers providers to help families understand the root cause of their child's behavioral issues and what steps they can take to help resolve it. So like I said, you are the perfect person to tackle this with us. But let's orient people watching and listening. And let's just start off with just a really kind of basic, like overview of symptomology. What are some symptoms that we might be seeing in children who are being exposed to either like mold and water damage in their home? Or maybe their daycare? How is it manifesting in kids? What are you seeing?

PK

Dr. Pejman Katiraei

3:14

There isn't one thing, and I think that this is what's so frustrating, you know, it's not like there's one rash that you look at and say, "Oh, this is mold." It can show up as allergies, which is, you know, what mold is well known for. Right? It's… It has been well documented in the literature that it can cause severe asthma, it can cause allergies, it can cause atopy eczema. And, you know, in this specific, specific area, what I find is the poor kids who have had severe asthma, you know, we're talking like hospitalization, ER visits, etc. A lot of those kids I find had been exposed to mold. I'm finding that children who have, you know, pretty persistent eczema – we're not talking tiny, little patch here and there. It's like significant eczema, the poor kids are scratching. And if the parents have done any elimination diets, usually those diets don't work. That could be mold. Lots of sinus congestion, mouth breathing, big adenoids, big tonsils, that kind of inflammatory response could be mold. And that's just in the allergy domain. What we also see is because these mold toxins affect the mitochondria and energy production, is a lot of times these kids just lack vitality. So a lot of these kids have like a paleness to them. You know, they don't have that kind of rosy cheek, rosy color. So they're really just tired and they just don't have a life force like a strong, lifeforce. They're, they're tired, they're irritable, they're just kind of dragging through the day. And then if you step… Extend that into cognition, you will oftentimes find, like, these kids just essentially have brain fog; even though you know, six-year-olds, eight-year-olds don't say, "God, I've got brain fog." Right? So they have poor focus, they have poor attention, they have poor processing. So if you specifically get into it, sometimes you'll see specific errors. Like, for instance, the children struggle to learn math, because it turns out working memory is one area that gets hit really hard with this. But it's just they struggle at a physical level with vitality. But at a cognitive level, that lack of vitality persists and it shows up with a host of different learning issues. Should we keep going?

KS

Kendra Seymour

5:47

Yeah, I mean, I think one of the struggles and this is, and I think part of the reason why this is so personal to me is… You know, as a parent, when my children were young, we had both kids, completely different symptoms, which is always fun, right? But we were racking up like diagnosis after diagnosis. And every time I would say, something to the doctor, you know, or my my firstborn. I mean, she was 11 months old, still screaming like eight hours a day, like that's not colic anymore. And the only explanation I ever got was, "Some children are just like that. Oh, she's just like a needier baby," like, "Sorry." So like, at what point… Or my son's severe eczema and I… Oh, my God, the elimination diet. When I was nursing, I felt like I was living on nothing. And, you know, at what point should we be asking different questions as parents? Or should the pediatrician instead of just saying, "Well, that's just how some kids are," or, "Here, try this third eczema cream and see where we land."

PK

Dr. Pejman Katiraei

6:47

So, you only know what you know. And me, as a pediatrician, like if you caught me eight years ago, – and I was doing a lot of functional and holistic medicine eight years ago, so it's not like I was new to the holistic medicine world – I was completely oblivious and clueless to mold. So if one of my patients in my holistic pediatric clinic came up to me and said, "Hey, do you think my kid's, you know, severe colic at the age of nine months", and as an extension to what you talked about, like, "sleep issues?" You know, "Do you think my kid's sleep issues are related to mold?" I'd be like, "No, I don't think so. You know, you… I don't think you guys have mold," right? And I'd move on. And I think that's just the nature of the human mind. Right? It accepts what it can accept, and if it's outside of our realm of comfort or understanding, the human consciousness kind of blocks stuff out. So for parents, I would say, trust your instincts. And if your instincts are telling you, "Hey, there's just something that's not right here. There's something that's not right, something is not adding up. This is not normal." And this is what a lot of parents, you know, come up and say, like, "In my heart of hearts, I knew that there was something that wasn't right. I knew that there was something that just didn't add up." And if your heart is telling you, your gut, your instincts are telling you, "Hey, there's something off," don't be afraid to ask questions. And if the provider you're working with kind of shrugs their shoulders and say, "Uh, I don't think it is," and they just kind of move on to whatever they're doing. And it's like, kind of to your point, "My kid has severe eczema." "Oh, let's just do an elimination diet." And two months later, you know, the eczema has only gotten worse. That's when I would say, "Feel empowered to say, 'Hey, this isn't adding up. I want more answers.'" And keep asking and pushing because there are providers out there that get this and understand this. It's just a matter of finding them.

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Kendra Seymour

9:02

Yeah, I think to your point, what is so hard… And you know, this is not a criticism of doctors. I… It is so hard what they do. They have limited time with their patients. Like I feel for the limitations that are imposed on doctors of our medical system. But you know, it's

hard because if the pediatrician isn't aware, and then you, as a parent… We know that mold and water damage is often hidden. So it's not even on the parents' radar, right? When we think about mold, a lot of people think, "Oh, it would be after a flood or it looked like a haunted house with like the big wall of mold." So it's missing every… It's missing a lot of people's radar and I know that's something that we're really trying to change. But you, know, I think some of the things that you know, I wondered is, we went through years and years of different treatments. You know, we'll talk about the reflux for a second. And you know, my oldest was prescribed two different reflux meds, one of them was later recalled. I look back now as a parent and I do, I carry some guilt. I was like, "Oh my God, like, what did we do to her gut now that we know?" You know, the medicine didn't really work, yet we kept her on it because we didn't know what else to do. I couldn't help her. She was screaming and arched back and what happens, you know, to these children when we continue to prescribe, like the wrong treatment, right? So another round of steroids or whatever, what happens to their body when we continue to do that? Does that make sense?

PK

Dr. Pejman Katiraei

10:39

It does, it does. I want to reframe this, in the sense that part of why I love working with kids is they are insanely resilient. And, you know, so many parents come and say, "Oh my God! Have I permanently harmed my kid because of my lack of understanding?" Or my... You know, there's tremendous guilt because if once you start realizing like, "Oh, holy cow, this could be mold, and I have missed it for all this time." There's a natural sense of guilt that comes. And I mean, just to put things in context even further, like, we moved into our current home eight years ago. And we… It was a very old home, it wasn't very well kept. We remodeled everything. It turns out, the only area we didn't touch was the bedroom that my son and daughter were sleeping in. And we thought we had the house checked, and nothing came up. It turns out that there was a boatload of mold under the insulation right in between their home… into their rooms. My daughter had eczema early on, my son had this chronic diarrhea. And now here's me – as the holistic pediatrician that supposedly knows mold – missing it, because it was, like, so ridiculously easy to miss. And it was only a year and a half ago that finally I clicked, "I'm like, God, this is really weird. This isn't making sense." So you… I'm saying this, because you can only know what you know. And you can only take action to what you're able to take action of. And what I tell all my families is, please don't put the guilt on yourself, because you did something that you now blame as the cause of your child's issues. Because if you had the information and you had the tools, you would have done something about it. I mean, no parent is going to let their child suffer knowingly. So please don't take on that guilt, because it doesn't help anyone. It doesn't empower you to help your child in this current moment. And what I say is channel every bit of energy you have to figure out how to make things better. So if your kid has gotten x number of steroids, or they've been on antacids, or they've gotten their 15th round of amoxicillin. Because now they've had, you know, their 20th ear infection, or pneumonia, or whatever else, the past is the past. And you can't change the past. What you can do is find someone that you can work with to start rebuilding your child's health. And, you know, touch wood. We've had kids that were on 20 rounds of antibiotics and two rounds of steroids. And we got their systems and their guts and their immune systems back in order. And a year and a half later, like you would never know that child had the issues they did.

And that's the beautiful part of kids. Like, unlike us adults that once we break, you know, it takes an act of God and like 15 years to fix us. Kids are awesome. You do a few things, and then like boom, they bounce back. And a year later, it's like, “Oh my God, that was the kid that was sick all the time.” So channel your energy into the positive element of healing, not, “Oh my God, I have harmed my child so much.”

KS

Kendra Seymour

14:16

I'm so glad because when I was preparing for this interview, I reached out to our community. And I asked parents, I'm like, “What is it that you want to ask?” And the question about, “Have I permanently harmed my kid?” came up and, “Is there hope?” and that's something… I'm so glad you went there because I wanted us to go there. That… Whatever happened – I know for me, it's easier said than done. But I hope parents out there hear this, you do the… To your point, you do the best you can with the information you have. Give yourself grace and focus on moving forward. Because you know, we're all human and we're all learning and it's already hard enough being a parent, don't add to that guilt. So I appreciate you saying that, because it may seem silly to talk about with a medical practitioner. But I think as parents, we need to hear that, especially when it comes to, you know, those decisions that we've made and, you know, can't do anything about. So let's move a little bit more into – because I know this is kind of an area you spend a lot of time.... I don't know if medically-complex kiddos is the way to call… to phrase it. But children on, you know, the Autism Spectrum Disorder or PANS and PANDAS; like how often are you seeing mold and mycotoxin exposure a factor in these kids? Tell us just… tell us what you're seeing with your patients who kind of fall into those more complex categories. Because it's a difficult thing to peel that onion and figure out what is one thing, what is the other? So any thoughts you have on that?

PK

Dr. Pejman Katiraei

15:49

I think there are many of us in the mold community that are familiar with these kids who are extremely worried that a substantial percentage – and we don't know what that percentage is right now. A substantial percentage of these children who are affected with PANS and PANDAS or Autism Spectrum have mold toxicity as the kind of root cause initiating factor. And you know, for instance, with PANS and PANDAS, like yes, strep, mycoplasma, viruses can cause the neuro-inflammatory response. What very few people ask is, “What in God's good Earth created that immune irregularity, abnormality, vulnerability, that allowed these very common infectious agents to cause the problems that they do?” Right. 30% of kids walk around with strep in the back of their throats, like, they're colonized. They don't end up with PANS and PANDAS. Like kids get strep infections. They don't deteriorate or fall apart like mycoplasma – which is walking pneumonia, like more kids have probably had it than not – and yet, their immune systems don't collapse. It's when there's vulnerability, and I can extend this also, in at least what I've seen in my practice. So it's not the end-all statement, but I can tell you in my practice, every single kid who has had some kind of adverse reaction to immunizations and inoculations, had mold exposure and toxicity as the root cause of that reactivity. Because a lot of kids – 99% of kids get vaccines – they get a fever for a day or two, and then they hum along and they're fine.

And then there are kids that get the same inoculations and then all of a sudden their systems collapse. And they get seizure… And I've seen seizure-like episodes, you know, weird autoimmune disease, kidneys fall apart, pancreas falls apart, gastrointestinal tract falls apart, there's autistic regression, etc, etc. And not to say I've seen 1000s of kids with this, but I've seen a fair amount. At least the kids that I saw in my practice –, and the kids that I've seen in consultation – so far, every single one of them had the mycotoxins floating in the background, deteriorating the vitality and the resiliency of this system. And then at that point, whether it was a vaccine or a virus or an antibiotic, whatever; it comes along and the system just falls apart.

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Kendra Seymour

18:35

So it sounds… And I've offered wondered that with our situation. Like, what was the straw that broke the camel's back? Because our PANDAS diagnosis came about the same time we were remediating; it was her first time with strep. And so I've always had the chicken or egg idea in my head. What came first? And ultimately, it doesn't matter because, you know, her body wasn't working the way it was supposed to. And we had to start unraveling that. So when you see these kids and they come to you, what... Talk to us briefly. Like, what treatment… Or I'm sorry, what testing are you running to kind of diagnose this? Because this… Depending on what camp you fall in, it's very overwhelming. The parents just want to know, "What's the blood test? What's the whatever? What…" How are you diagnosing your patients? I know it's a loaded question a little bit.

PK

Dr. Pejman Katiraei

19:25

It is and it's not. You know, the thing that very few people are talking about in our community is how fallible all these tests are. Right? There's the camp that's like, "Urine test everyone," and "It's the word of God on a piece of paper." And then there's the other camp that, "Only blood testing is it and all these guys are fools." And, you know, everyone's like, having these strong opinions. And no one is saying that, "You know, what? Every single tool that we have is actually flawed." And if I was to distill, you know, the challenge in mold toxicity down to one thing, it's the fact that we have very poor diagnostic tools. And the reason why, like, mold toxicity has not gone mainstream is it's so hard to accurately assess. So let's talk about urine mold toxin tests, which are, you know, one of the most common tools used. And I can only speak about kids, I can't speak for adults. And it does seem that these tools are more effective and accurate in adults, because they probably are better at detoxifying mold toxins than kids. But at least in the children that I serve, what I find is one, you can get all kinds of weird false positives, where there is no mold, but the test looks weird. Why? Because the child has had some peanut butter, and they had some dried fruits, and they had some nuts and all of these foods have mold. And that mold goes through the gut, goes through the bloodstream, comes out in the urine, and you get *violá* all these positive tests. We also see false negatives, where… And this is, you know, what kept me blind to this. Because early on, you know, I would order these tests on occasion. Every time I look, I'm like, "God, that doesn't look *awful*." Like if this can't be bad enough, these results don't look bad enough to explain why this kid is falling apart. And then I'd move along my merry way looking for other stuff, even though it was mold. And what really has become

clear to me after running, I don't know 1000 plus of these tests now, is when… Especially the kids who are really, really toxic their organs of detoxification – their liver, the kidneys – really, at some point, lose the ability to efficiently secrete or excrete these toxins into the urine to show up in the testing that we do. And hence, you get these results where you look at them, you're like, "Doesn't look bad, maybe not mold," even though it's absolutely mold. There's another test called a Urine Organic Acid Test, which a lot of functional medicine providers use, especially those in the autism community. And they oftentimes just rely on that organic acid test as their screening tool. And early on, I was 100% guilty of this. I had, I don't know 30 cases where I did the test, "Oh, doesn't look too bad, it can't be mold," move on. And sure enough, it was mold. 40%... So if the urine mycotoxins give a 20-30%, false negative – and this is just my anecdotal observations – it's by no means, you know, hard science. I would say these organic acids tests probably give closer to 40-50%, false negative. So one in two times, awful mold exposure, high mold toxicity, totally normal urine test. So that takes us to a "Gosh, if all of this is normal, what the hell do you do?" Right? And that's where the blood testing comes in. So I do have to say that while there's a lot of controversy and debate around this – so by no means is this settled and clear. The serum testing for antibodies, so you can check for antibodies directly against the molds. So Aspergillus, Penicillium, there's a company called Alletess (A L L E T E S S) that will also check for antibodies against like Stachybotrys. So you can check for antibodies directly against the mold. And I have found specifically this test or Alletess to be much more sensitive. Accuracy in terms of picking it up, is I'd say somewhere around 70-80%. So still not 100%, but better. And then there is MyMycoLab – by Doctor, you know, run by Dr. Campbell – that checks for antibodies against the actual mycotoxins; which I also find to be about the same sensitivity with a higher specificity. Because now it's like, "Oh, gosh, the immune system is being perturbed by these mold toxins," and it's probably exposure. At the end of the day, there is no perfect test. And if a family has enough resources, what I typically do is do a urine test, whether an organic acid test or the mycotoxin and do the blood testing on top of it. But not everyone has that luxury. And sometimes it really just boils down to looking at what's going on. And, you know, if it looks like a duck and quacks like a duck, it's probably a duck. You know, there are times where the kid is young, so we don't want to poke them. The family doesn't have a ton of money. And that's when we say like, "God, let's just do a treatment and see if it works." Or, "Let's bring someone into the home and check the home."

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Kendra Seymour

25:12

Yeah, so and for a point of clarity, because I know I was told this and I know parents are being told this, whether it's for themselves. They'll say, "Well, I'll run a mold allergy blood test." And what you're talking about is different, correct? Than a mold allergy test?

PK

Dr. Pejman Katiraei

25:26

Yeah, yeah. So thank you for bringing that up. So the antibody tests that we're checking are typically IgG. And IgG, is more of a delayed immune response against the mold or mold toxins. MyMycoLab with Dr. Campbell, they do check IgE against the mold toxins, the mycotoxins. What I see to your point is, so many doctors – especially allergists – check the

IgEs which are the immediate anaphylactic (you stop breathing kind of immune response) against the molds. And it comes up totally normal, or there's like a tiny blip where it's like a 0-1+ where you look at, you're like, “Oh, that's not a big deal,” and you move on. I'd say probably close to 90% of the time, I find that when these antibodies have been checked, they're completely normal, or barely positive, in heavy amounts of confirmed mold exposure. So those IgEs are pretty much useless. So thank you for touching on that.

KS

Kendra Seymour

26:36

Yeah, because I know sometimes… My other child, he had so many food allergies. And so, you know, it was like, “Well, he's allergic to XY and Z, and he's reacted to XY and Z, and we ran environmental tests. And nope, mold wasn't a problem.” And I don't even push it anymore when it comes up. But it's one of those things to be aware of. So thank you for offering that clarity. So it's funny because the same challenges with testing the body, right, there's no one test, there's no perfect test. We have the same challenges with the home, right? When an IEP, an Indoor Environmental Professional comes in, to inspect your home, you know (we have lots of resources on our website, ChangeTheAirFoundation.org to find the right people), it is really hard because we are so programmed. We want the *one* test, right? We want the “pregnancy test”, we want the one solution. And you know, it's overwhelming, which is why we try to break this down and step-by-step and you got to take it day by day. But I think that's… I think it's a super astute observation, because one of my follow-up questions was going to be, “Why is this so still under the radar? And how do we help it become mainstream?” But before we go there, I want to follow up with… You had said something about treatment. So for a child, I get it, you don't want to poke them when they're young. It's a nightmare, having been through it many, many times. What are some of the things that you're starting with for treatment that are kid friendly, that are generally tolerated by children?

PK

Dr. Pejman Katiraei

28:06

So most of the kids that I see, are presenting with a lot of nervous system issues. So a lot of anxiety, insomnia, sensory changes. And I would say that mold, the mold toxins, in my experience are *the* number one thing that causes this. Like Lyme and Lyme co-infections, heavy metals, they *can* present like this. I don't see them presenting as frequently with this. So when you see the nervous system acting in a very irrational fashion, and the first thing that people may see – and this is one of the things that like has my radar going off – is any kind of big sensory distortion. So lots of sound sensitivity; those poor kids that start becoming either highly anxious or start, you know, getting stressed out in loud and crowded environments. And kids on the spectrum, oftentimes present in this way. But also norma-type kids. You know, some of the kids that we label as, “Oh, she's just shy,” or “Oh, he's just got some social anxiety…” Those things when you really distill it down and you kind of take away the layers, what you find is underneath that label is a sensory processing disorder. And specifically, oftentimes an auditory processing disorder. In addition to the sound, you can have balance changes. So the kids that are uber clumsy, the kids that are hyperactive (they just cannot sit still for the life of them). Because mycotoxins trigger mast cells and mast cells dump a bunch of histamine. Histamine happens to be this master

regulator, or if you want to say dysregulator, of the sensory pathways. It disrupts the vestibular system. So all of a sudden, you get all kinds of weird poor motor planning (where the kids like seem to just stumble every three steps they take), or they are constantly hyperactive and moving. That's a vestibular finding. Some of these kids, in addition to that, will have weird tactile sensitivity. So like hair washing is a nightmare. Why? Because the experience of water in their hair and their face is overwhelming to them. And, you know, it makes me sad because oftentimes parents are like, “Come on, toughen up, let's just do this.” And they can't understand why that poor kid is screaming and crying. And they think, “Oh, my kid is just being a pain in my rear end.” Whereas it's actually an overwhelming, miserable experience for that child. Sometimes that tactile sensitivity shows up in the mouth. So we don't often consider like, you get kids who have weird eating issues, right? They have formal terms like eating disorders, where it's not anorexia. But in little kids, it's… They won't touch, like steaks, they won't touch chicken, they certainly won't eat fish, they'll avoid vegetables, and they'll eat pancakes, and plain pasta and chicken nuggets, and peanut butter and jelly. And when you look at these foods, from a texture standpoint, they're all very similar, right? The… You don't need to chew them. They don't really have a big texture profile. They're easy to chew and swallow. And part of that is they actually dislike the experience of eating these other foods. And I've had some older kids that I was talking to them like, “What does it feel like to eat these foods?” And they're like, “Oh, it's disgusting, I hate it.” And you and I would look and be like, “Oh, steak is delicious,” like, “Oh, wow, I would love a nice piece of steak or a nice piece of salmon.” But our sensory perception of that food is pleasant. Whereas for this poor kid, I mean, you might as well just pour, you know, oil and slime down their throat, because as far as they're concerned, the experience is no different. And, you know, as you look, you see these things in these kids that don't make sense until you start kind of piecing it together from this other angle. And all of a sudden you're like, “Oh, that's why they do this. Like that same tactile sensitivity in the hair, in the mouth shows up on the skin. So some of these kids are totally averse to wearing certain kinds of clothing, some of them will only wear like one t-shirt and one pair of pants. And it's all part of that same thing. The same piece that affects the vestibular system in these sensory pathways, the histamine… If you think of what histamine does to the nervous system, it maintains the nervous system tone, right? You take a thing, an anti-histamine, a lot of times… Benadryl, what happens? You knock out right? Your nervous system tone drops down; it's like taking the air out of the balloon. If you have too much air in that balloon and that balloon is about to burst; the nervous system can behave in the same way where these kids just cannot slow down, they have a hard time falling asleep. They keep waking up in the middle of the night. I'll give you a funny example of this. My brother-in-law was nice enough to buy me this big, delicious thing of turmeric in this liposomal form. And it turns out turmeric can mess with certain chemicals if you have mutations like I do. So here I am thinking like, “Oh, this is awesome.” So I was taking like, you should take a… maybe two teaspoons. And you know, I obviously never listen to these things. And I was taking like an ounce at a time. And after the third night, I'm like, “What the hell is going on? Like, I go to sleep. And then two o'clock, I would be like, wide awake, like as if I had had like four cups of coffee. And like, it would take me 2-3 hours to fall asleep. And after the third night, I'm like, “Oh my God, it's the turmeric.” Or a lot of these kids, they have the same effect because of the histamine issues where their nervous systems literally cannot slow down. So you get these weird things where they're anxious.

They can't slow down. They can't calm down. They can't fall asleep. They… If they do fall asleep and you give them melatonin, they're awake three hours later. And it can show up as early as a few months of age. This is the part that was really trippy for me to figure out. I… Now that I put it together. I've had two kids in the last nine months that were under a year of age, like 6-9 months where their sleep patterns were completely off. You know and babies should sleep, you know, 18-20 hours a day. These kids were sleeping like 10 hours, 12 hours to the point where the parents were like, "What the hell is going on?" And it's all that histamine imbalance.

KS

Kendra Seymour

35:10

Yeah. And for babies, you know, I think about our situation. You know, I was pregnant in the house, and so in utero, and then they're born, and then you're breastfeeding. And, I mean, they're just getting triple the exposure, and she was my non-sleeper. Yeah, we joke, we did have a second. But we thought about it for a moment before we did that. But once you do look back, you do start connecting the dots. You know, the sensory processing and all of it and you're like, "It all makes sense now that you have the benefit of hindsight." So just, you know, in terms of, you know, it sounds like with your patients, you do ask about the home, right? When you're seeing some of these things you do try to connect them with a good IEP. When you do treat your kids… these patients of yours. It sounds like it's very individualized based on how they'll react. But is there you know, some parents want to go for like the binders. Some want to go to the antifungals. Do they work together? Like if you've spent any time in any of the mold groups? Chances are you've heard those two things. Just briefly, I know it could be its own episode. What role do those play with treatment in children?

PK

Dr. Pejman Katiraei

36:19

Great question. I first want to start with, "What do we do to calm the kids down?"

KS

Kendra Seymour

36:23

Yeah.

PK

Dr. Pejman Katiraei

36:24

So one of the things that I hinted at earlier, and this is actually, you know, my poor man's test to see if this histamine, mast cell reactivity is there. And then by extrapolation to say, "Well, gosh, what the heck is causing it?" I've basically started using a combination of two or three supplements that fortunately are pretty safe. Now, all of you should go talk to a provider. Don't just listen to this and jump and do this for your kid. Bad idea.

KS

Kendra Seymour

36:54

Not medical advice. This is not medical…

PK

Dr. Pejman Katiraei

36:55

Not medical advice. This is just for education. Do this under the guidance of someone. But there's a product called Mirica (M I R I C A), widely available. You can find it on Amazon, you can buy directly from the company. It's a combination of bioflavonoid luteolin and then a compound called PEA. These two combination of compounds are actually fantastic at reducing mast cell activity. And also the microglial activity – which is the inflammatory process in the nervous system that kind of goes back and forth. So the mast cells and microglia; it's like having twin sisters that love each other, they're like each other's best friend. And if one twin sister gets irritated, the other one gets irritated. And they're kinda like joined at the hip. Mast cells in the microglia (which are the brain's immune cells) are kind of like those twin sisters. One gets irritated, the other gets irritated, and they can irritate each other. The cool thing about Mirica is, it has a dual mechanism of action. It helps calm down the mast cells – both the PEA and luteolin can do that. And the PEA specifically also chills out the microglia, which reduces part of the inflammatory response in the nervous system and kind of keeps that pinging going back and forth. It… What I typically add to this is this DAO enzyme. These are naturally occurring enzymes in our gut. But when you have mold, the enzymes that we naturally have… It's like your house is on fire, and you're busting out your garden hose trying to put out the house fire, it's just not enough. So P… Adding these DAO enzymes to the Mirica, it's like calling in the fire department and now you're adding additional enzymes to break down the histamine. Literally, it digests the histamine within the gut, to prevent it from getting up here [points to head] to cause that activation. And oftentimes, I find that that combination, 50%-60% of the time – presuming someone isn't living in heavy, heavy amounts of mold, because when there's that much exposure, it's hard to calm down the nervous system. But 50-60% of the time, what families find typically after about three weeks is like, “God, my kid’s sensory issues are not gone, but better. Oh, he isn’t freaking out every time we go to a restaurant or when he goes to school. She isn't having the tantrums. Oh my God, she started staying asleep for the first time in her life.” So, families will find, like, the nervous system starts calming down. And sometimes that becomes our first kind of foray into “Oh, okay, so something was affecting your child's nervous system through their immune system. Let's ask the question of, “What the heck is it?” to then open up the conversation and then dig further. As far as the detox, there is a lot of debate and questioning. And I've got to tell you that up until about six to nine months ago, I was pretty hardcore in the, “use the binders” camp. And, you know, I was taught that binding these mycotoxins is the way to go. And I had two populations of kids. There were the kids that just got better. So you get them out of mold, you take care of a few things. And then *voilá*, like six months later, kid is thriving, everything looks so great and I felt so smart. And then there was the other population of kids and these are typically the ones who have more severe issues. You know, the kids on the autism spectrum, the kids with severe PANS and PANDAS, the kids with severe learning disabilities. And you know, just, they're really struggling. And with these kids, you know, we would have them on bentonite charcoal, fill in the blank, you know, whatever. And nine months, a year later, I would test one, they would get kind of better, but not really, like, it wasn't a breakthrough, “Oh, my God, this kid is so much better.” The family’s like, “Yeah, they're like 20%, better, something has happened,” but it's not like everything is gone. And then I would retest your mycotoxins

and the mycotoxins were still there. And that's when I'm just like, “What is happening?” Literally, you know, I would just bang my head against the wall. I'm like, “This makes no sense.” So, one of the things that I started doing is kind of digging and asking the question of what the hell is up with these kids? And what… The picture that started really coming up for me is the gastrointestinal tract. And what is happening in the gastrointestinal tract that's affecting these kids? And really, what became more and more clear to me is that in those kids that do not respond to the binders – and chances are the kids that responded to the binders would have detoxed on their own. With or without binders, their guts, because their gastrointestinal tracts were already in a place where they still were whole (they were healthy), they would have been able to detoxify. And could the binders have moved things along faster? Probably. By themselves, did they fix everything? Probably not. So, in these other kids, what we… what I have learned is that once the gastrointestinal tract kind of gets past a certain point, like a breaking point, at that point, these kids cannot recover, even when they're out of mold. And because the binders don't actually address the gut inflammatory response to gut permeability – and we think there's actually colonization within the gut. So, Aspergillus, in particular, actually can set up shop inside the human body. It can tolerate the human body temperature. Whereas, Penicillium and Stachybotrys and these other molds really don't do well at the 98-degree temperature that our bodies like to be at. So, Aspergillus tends… actually can. And what seems to happen is in those kids – and I can't speak for adults. But in those kids that are really struggling, because their microbiomes and the bacteria and all the things that typically keep Aspergillus out, right? It's like having a lawn that's really well kept, right? A few weeds can land in the lawn, but because the grass is so healthy, those weeds just move along, right? They don't set up shop, they don't really take hold. You have a lawn that's kind of falling apart and, like, it's a big hot mess. A few seeds land in that lawn. Now suddenly, you got crabgrass everywhere. And next thing, you know, crabgrass has taken over the entire lawn. We think a very similar picture happens in the gastrointestinal tract of these kids. And this is a very long, long-winded way to say that in the last six months in particular – since this picture became more clear to me – I've started using a hell of a lot more of the antifungals. And I have to say, you know, this was with a lot of kicking and screaming on my part. I'm like, “No, this can't be what's going on.” And I started using them. And it's, “Holy cow!” These kids are responding and they're responding ridiculously well, like severe cases of eczema from mold, like pretty much gone within a few months. I now have several kids that are on the autism spectrum that have started like improving in ways that are shocking to me and the parents. Like expressive language coming back, eye contact, sensory issues improving. Some kids with PANS and PANDAS. You know, weirdly enough, I'm using antifungals in those kids and they're responding. So, so far not… not to say that, you know, I've treated 1000s of kids like this, but so far, the outcomes have been impressively good. Now, does this mean that we shouldn't use binders? No, it does mean that binders still have a role. And I still use them in these kids. Because there are bacterial toxins. There are the mycotoxins, there are glyphosates or other toxins that are floating around in these kids. So, I still use the binders. But now it's to keep things moving along with the primary focus of the treatment being in terms of, “How do I restore the gut of these kids to help them heal?”

KS

Kendra Seymour

45:41

Yeah, and I think that's one of the other challenges. Not only is there no single test, there's no single treatment plan. Because it really varies by child and situation, it sounds like. So that's really interesting way to explain it with the lawn analogy. Because I know for some parents, they think, “Well, the binders aren't working. Well, maybe it isn't our problem.” And something we didn't talk about and we don't have time to talk about today is that you *have to* address the issue in your home – or wherever the exposure is – to the best of your ability. So, if you… I mean, I can't imagine that, you know, you tell your patients, “We're just going to do treatment, don't worry about finding the root… the source in your home.” You have to address that. So, if you're listening, and you're like, “Oh my God, how do I do that?” Again, but ChangeTheAirFoundation.org. Actually, go to our “Start Here” tab, we now take you through step-by-step how to do that. Not to get a little plug, but I'm trying to get everything in and we only have a little bit of time left. But I do have a question that some of the parents that I've talked with have said. Because you are obviously very knowledgeable. You have spent time, you actually believe that this is a problem. How can parents communicate with their pediatrician in a way that they're believed? Because if you have… I know, we talk about this in the PANS and PANDAS community. That's another diagnosis that's not always believed. Parents worry that the doctor is going to think they're overreacting, that you know, they're exaggerating. You get to extreme cases, you worry about medical kidnapping. Like, how can you communicate with a doctor so that they believe you? Is there things to say or not say? How do you navigate that? Any tips?

PK

Dr. Pejman Katiraei

47:31

Really good question. And it's a very big problem. I think you need to sense and know your doctor. There are providers out there that just want to help the child. And they don't have their ego in it. And they're open. And if you say, “Hey, like I've done some research, I've done *a lot* of research.” And there are some families out there that are way more knowledgeable than most providers. And you say, “Look, I've done the research, here's what I've found. Here's what I'm worried about, would you be willing to support me in looking at this?” If the provider is open and, I mean, if they're being honest; like in a lot of these cases, the provider has no idea what the hell is going on, right? Like the child is having weird issues that don't make sense. And if a provider is being honest enough, they should say like, “God, I don't know what the hell is going on. Your theory could be as real as anything that I know. So, let's explore this together.” There are also providers that will look at you as if you have said, “You know, what, an alien from Mars just landed in my backyard, and now they have given me this tool that's going to zap the Earth and shrink it.” Right? And if you get that sense, this is where, you know, without putting down the providers, – because they're doing their best, and some of them are completely overwhelmed. And they're just trying to make it through their day. But if you run into that scenario, that is where you may say, like, “God, I need to find someone else, like my pediatrician could still be my kids' pediatrician.” And, you know, “For the next round of ear infections or, you know, whatever well checks, like we still do what we're going to do. But I need to find someone that understands this thing that my kid is going through.” And fortunately, you

know, between the various organizations out there, there's this wonderful organization called…

KS

Kendra Seymour

49:30

Can you name some of those for us that…people can look online?

PK

Dr. Pejman Katiraei

49:34

Yeah, so ISEAI, International Society for Environmentally Acquired Illness – if I got that correctly – is a wonderful organization. And they have lots of gifted and talented Indoor Environmental Professionals, IEPs. As well as physicians that are highly attuned and trained in mold exposure and mold toxicity. My mentor, Dr. Neil Nathan, he actually has a large group of providers that he has personally trained. And anyone that is listed on his website is someone that he has deemed as being, you know, competent to a certain level to help. So there is a growing body and community of mold-literate providers out there. And if you run into a wall where you're like, "God, that this doc is not willing to support me, if anything, they're putting me down," you still respect them. But you know, don't try to convince the ultra-orthodox Jew that Jesus is the savior and answer, right? It's just for some providers, sadly, their medical practice is their religion. And they're so enmeshed in that orthodoxy of thought, that there's no way that they can see anything outside of that. And you're better off in these scenarios, finding another qualified provider that can then give you the answers and help you walk through the process of testing and assessment and treatment to help you figure out ultimately how to help your child.

KS

Kendra Seymour

51:11

No, that's helpful. And we'll link to both the ones you mentioned, and if there's any others you think of you can send them to me, and I'll put them in the show notes so that people have that as a resource. Because that's always really helpful. One of the things though (and we'll kind of end on this), you know, that is a challenge, not only finding a provider, is many of these providers, though, are out of network. So accessibility becomes an issue, right? I'm already going to be struggling to figure out how to remediate my home. And now insurance isn't going to cover this. Are there things… steps that parents can take at home? Again, this is not medical advice. This was one of the ones they wanted me to ask you… That they can do that would help the body heal? Is it? Is it a low-mold diet? Is it foods high in antioxidants? Are there some things that parents can start doing at home, while they figure out how they're going to find, you know, medical care or, or things like that?

PK

Dr. Pejman Katiraei

52:04

Yeah, I think a low-inflammatory diet is helpful. I think, making sure that basic things like zinc, vitamin D, Omega fats, fish oils. Like, all of these are, you know, healing anti-inflammatory foods, or compounds that are widely and easily available, that can help the anti-inflammatories that I shared, the Mirica, the Histamine Digest, are generally helpful. So, there are absolutely things that families can do to just start taking those first steps.

KS

Kendra Seymour

52:40

And yeah, anything you can do to, to minimize the exposure in your environment, you know. Sometimes, you know, I understand, really I do and, and my heart breaks for how hard it is to you know, find the right people to remediate your home, the cost, if you're in a rental, you have even fewer situations. And it's taking those steps, we have lots of them on our website that could help, you know, begin to move the needle while you make your plan. Now, we only have a minute or two and I did say we would come back to this. What would it take, in your opinion? Because I would love to see this become accepted by more mainstream doctors. I would love to see that you could go to your pediatrician and/or a doctor and have insurance coverage for this. What do we need to put in front of healthcare providers for them to be like, "Oh, my God, this is a big problem." In your opinion what do we need to show them? What do they need to see? Solve it for us.

PK

Dr. Pejman Katiraei

53:34

I wish it was one thing, you know? This is like what the 1980s where physicians and pediatricians were going on commercials smoking, right?

KS

Kendra Seymour

53:47

Right? My mom was told she could smoke with us, you know, when she was pregnant and I'm not that old.

PK

Dr. Pejman Katiraei

53:53

Yeah. And they would. They would, right? We'd smoke on airplanes, we'd smoke in restaurants, and it was okay. So I think there needs to be a shift in consciousness. There needs to be more awareness around what's happening. I think we need to get our act together in terms of environmental assessments. And I know that you guys are working really hard to get legislation in place so that there's at least the minimal standard of environmental testing, which doesn't exist, right? A whole bunch of people come, "Oh, you don't have mold in your house. There's nothing there." Except there is. And, you know, on the medical side, hopefully, we'll get to a place where we have a very accurate and reliable diagnostic tool that has, you know, ultimately FDA approval, where it's very clear cut. "Yes, this is mold," you know, like a pregnancy test. There is no "Oh, *maybe* you're pregnant." It's like, "No, there's the plus plus sign or minus sign." So we have some work and you know, in some of the presentations that I give… You know, remember the Flintstones? They had the car where they were pedaling, and there were the boulders. That's pretty much where we are in our current practice and ability to understand mold and treat mold. And I think if we start with that, and we realize like, "God, we're really behind and we really need to get our act together," we can start moving forward.

KS

Kendra Seymour

55:27

Yeah. I will say, because I want to end up on a message of hope because I do think there's a lot of hope here. When we first started eight years ago, there's so much more information now available – and organizations and groups, doctors and practitioners – than there was when we started that, I have hope that it's going to continue to kind of like snowball. I love that you said that there's hope that our kids can recover. And, you know, we didn't permanently you know, screw them up, you know? And we can let go of some of that guilt and start making a plan to go forward. Because, man, being a parent is hard. I know you have kids. And you know, sometimes we got to cut ourselves a little slack and just take it one step at a time. But thank you so much for being here. If people had follow-up questions or wanted to get into contact with you remind us of your website so we can link to that.

PK

Dr. Pejman Katiraei

56:18

So, they can reach out through my clinic, which is Wholistic Kids with a 'W' (W H O L I S T I C Kids). We also have an AI portal that is meant to really empower a lot more families to get access to this kind of care more efficiently, more effectively, and to ultimately bring down the cost of this kind of care. And that's Wholistic Minds (so W H O L I S T I C Minds). And, you know, what I want to leave everyone with is, I would have never gone down this road, if I thought this was all doom and gloom. What I have seen – and the reason why I'm so absolutely passionate about this – is that the type of recoveries that I have seen in the children, the type of health benefits that have come out of all of this have been staggering. I mean, it's oftentimes unimaginable until you're actually there witnessing it. And the beauty of it is that kids *can* recover. And kids who can't learn, suddenly start learning and they're, in the top of their class. Kids that had off-the-charts anxiety, and, you know, totally disconnected from the world are now the social butterflies that are in the… on a… doing the school play. The kid that didn't want to go to school, because of anxiety is now the lead role in a school play in front of 300 other people doing the show, and everyone's like, "What the heck is going on?" The kids that were so tired that they barely wanted to move, are now the soccer athletes. Like there's story after story after story after story that I can share. And what keeps me going and what drives me is there's so much hope. And there's so much good we can bring into the world and there's so many kids and families we can help. And that just starts with these conversations. And that's why I'm so grateful that you're here, having these conversations and getting this type of positive, positive messaging out in the world because that's what we need. And there's so much healing that can be done through all of this.

KS

Kendra Seymour

58:29

Yeah, I absolutely love that. Yeah, and it starts with awareness. So, if anything we said today sounds like you or sounds like, you know, a child in your life or, you know, somebody who might benefit from this, do me a favor, like, follow, and share. We're on all major social media platforms. And you can also head on over to ChangeTheAirFoundation.org and sign

up for our newsletter, because it really is the best way to get great information like this directly to your inbox. We'll see you next time. Thanks so much.