Mycotoxin Treatment in Pregnancy and Breastfeeding Transcript

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Introduction and Speaker Background

Welcome everyone to the Michael Jackson and Chronic Illness Summit. I'm thrilled to introduce Doctor Amanda Williams, who's going to be talking about Michael Jackson treatment in pregnancy and breastfeeding.

Doctor Amanda Williams works closely with me at Eminence Health and she specializes in Pans pandas complex chronic illness. I don't mean conditions, bioidentical hormones and Lyme disease.

She's a natural, empathic physician who graduated from Bestiary University with a special interest in complex chronic illness. She completed advanced training in I. V.

therapy, injection techniques, ozone therapy. Michael Jackson Wellness, autonomic response testing, environmental medicine, toxicology, alarming conditions, bioidentical hormones, pandas, pans and Lyme disease.

With empathy and passion, she's committed to identifying the root causes of health issues internally and in tailoring individualized treatment protocols.

She enjoys helping people of all ages find their path toward wellness and happiness. But has a special focus on pediatrics and women's health. Doctor Williams.

Doctor Williams, please cut that. Doctor Williams has the drive to stay up to date with new treatment modalities. Okay, let me do this again. Okay. Take four.

Welcome to the Michael Jackson and Chronic Illness Summit. I'm doctor Christine Schaffner, and I'm thrilled to introduce doctor Amanda Williams. She's going to be talking about Michael Jackson treatment in pregnancy and breastfeeding.

Doctor Williams works closely with me at Eminence Health, and she's a natural Catholic physician who graduated from Bastia University with a special interest in complex chronic illness.

She completed advanced training in IV therapy, injection techniques, ozone therapy, Michael mycotoxins, autonomic response testing, environmental medicine, toxicology, autoimmune conditions, bioidentical hormones, pandas, pans, and Lyme disease.

With empathy and passion, she's committed to identifying the root causes of health issues and tailoring individualized treatment protocols. She enjoys helping people of all ages find their path toward wellness and happiness.

But has a special focus on pediatrics and women's health. Doctor Williams has the drive to stay up to date with new treatment modalities, and is continually furthering her education in the rapidly evolving field of integrative medicine.

In her downtime, she loves spending time at home with her family and pets. So please enjoy this wonderful lecture from Doctor Amanda Williams. Hi, my name is Doctor Amanda Williams.

I'm a natural, empathic doctor working at Eminence Health Clinic in Seattle, Washington. So I see, you know, a whole lot of variety, but typically it's the chronic illness world is really the patient population that I focus on.

So in that mycotoxins and mold illness is a huge part of, what I see on a daily basis. So the topic that I chose to speak about is mycotoxins treatment in pregnancy and breastfeeding.

So the reason I chose this is really twofold. For one, this topic in itself isn't spoken about very much. You know,

pregnancy and breastfeeding is a very, very sensitive time and that patient population is extremely vulnerable.

So I thought it would be good to talk about, you know, the things that can be done, you know, ways to help prevent, damage and to stabilize both mom and baby.

And my second reason for choosing this topic is I actually had this happen. This picture here is, myself when I was pregnant with my little girl. She's about nine months old now.

And then this is my son. He's about four here. But when I was pregnant with my son, my husband and I were living in, a little camping trailer while we were building our home and had a mold exposure.

So just the experience of going through that with on my own. And, you know, of course, being in this field and helping others go through mold and micro toxic illness has given me a lot of insight. And, a lot of tools to navigate with.

So with pregnancy and breastfeeding, this is the most vulnerable susceptible sensitive patient population. You're talking about both a developing baby, you know, and a mom whose system is completely changed to the endocrine system is changed.

There's huge hormonal fluctuations. There's, basically an immune suppressed state while this fetus is developing and, and many other changes, you know, of course, emotionally and, you know, physically.

So with this population, you know, you really want to weigh any, any intervention at all, and make sure the benefit outweighs any type of risk associated.

So this talk is not meant to be any kind of self-help guide.

Why Pregnancy and Breastfeeding Require Special Care

Everything I'm going to be talking about. You know, there's definitely little nuances with it. You want to make sure things are dose dependent and done in the right trimester.

So none of this is meant to try and do it yourself. You need to have a really great team on board, someone who is, well, well versed in mycotoxins and mold illness and of course, have, you know, a trained midwife, OB do you know that whole team involved?

And then I think it kind of is a common sense thing, but of course, the biggest piece is avoidance. So in a perfect world, you know, we would have, you know, the couple come in, make sure that there's a bunch of preconception care done prior to becoming pregnant, just to make sure that the, the, you know, the environment clean, that we're not having micro toxin exposures during pregnancy.

But you know, it happens. So we'll just get into some of the, some of the ways that, that we can help. So with the negative mycotoxins effects, you know, they're detrimental on many fronts.

A lot of the research we have with, with mycotoxins really can't be done in pregnancy just because we know there's so negative. No one's going to sign up to have, you know, mycotoxins, exposure to see what happens with that fetus.

We know that mycotoxins are very detrimental. So a lot of the information I'm pulling from and the research that's done is pretty much done on animal models and mouse models.

But in general, we know that mycotoxins are immune suppressive liver toxic kidney toxic. They're toxic to genes and DNA. They're cancer causing and they're implicated in a lot of neurosis psychiatric issues as well.

So I also work with a lot of kids with pandas and pans. This is an acronym standing for Pediatric Autoimmune

Neuropsychiatric Disorder. Pandas is associated with strep, where Pans can be really anything that triggers that autoimmune neurosis psychiatric issue.

So mycotoxins can trigger that. And typically what that looks like is more of, anger, rage, OCD, so more like citing psychiatric issues. But but mycotoxins.

Mycotoxins can absolutely, trigger that reaction. Mycotoxins also can cause mitochondrial damage. They're transgenic, meaning that they cause birth defects and they're highly inflammatory.

So a mast cell response is a very common thing that happens where the the body just has this overproduction of inflammatory cytokines and specifically histamine, that can cause a whole downstream negative, effect.

And for this talk specifically, I'm not going to go into the individual types of mycotoxins. I'm just going to lump them together. Other, you know, other lectures and experts might, might go through the different ones.

But just like I said, to really focus on treatments, I'm just going to lump them as mycotoxins. Now in pregnancy specifically. Mycotoxins do pass through the breast milk.

So if there is an active micro toxin exposure or, you know, dumping from the tissues, it can pass through the breast milk into baby. It can also enter the placenta so it can pass from mom into a developing baby in utero.

So the negative, impacts that can happen are lower birth weight. Jaundice in a newborn baby, which just means the liver isn't clearing appropriately. Again, it can be toxic to the kidneys.

Mycotoxins can absolutely cause fetal loss to. They can cause miscarriage or even late term. Fetal demise. They can cause birth defects. As mentioned, preterm birth, maternal anemia and pre-eclampsia, which is basically a toxicity of pregnancy that can, can actually end in some very serious outcomes.

You know, so things, all of these things we want to avoid. During pregnancy, we want to just focus on preventing any kind of injury and, and stabilizing mom and baby in pregnancy and breastfeeding in general.

You really want to avoid any treatments that will facilitate detox. So that means sort of therapies, ionic foot baths, colonics certain types of enemas, any kind of heavy metal key lesions, like any of those types of things that are going to be pulling toxins, you know, from the bone, from stored tissue, from fat cells and circulating them because we want to avoid any type of, you know, distribution to the baby or, distribution, like through the breast milk into baby.

So in pregnancy and breastfeeding, you really want to stabilize and reduce damage. You don't want to actually come in with these big guns and kill mold.

You don't want it to feel threatened and increase the production of mycotoxins. So you want to just go, like I said, for for just a stabilizing effect.

And then after that baby's born, after the baby's done with breastfeeding, then you can do the stronger treatments to try and really get to the root, and get the, you know, the both the mold and mycotoxins treated in the mom and be.

So the first thing I like to do is start with diet. There's a lot of things you can do through diet that can have a very beneficial, treatment effect.

So bio flavonoids are probably my absolute favorite. So this bio flavonoids are are basically the super antioxidants found in many different foods. They're the highest in the colorful foods.

So, you know, eating a whole variety of red, yellow, orange, purple, bright green, those you know that rainbow foods. So they're going to introduce the, the biggest variety, and the highest amounts of bio flavonoids in the diet.

So bio flavonoids have been shown to help in so many different ways.

Mycotoxin Risks for Mom and Baby

They're, they're great for heart health. They're great for brain health, for helping to heal like a blood, leaky blood brain barrier. They're anti cancerous.

They're still protective. They protect against any kind of mitochondrial damage. They preserve glutathione in the body. They reduce inflammation. And the list goes on and on.

One of my absolute favorites is going to be quercetin. So quercetin is a bio flavonoid that's highest in, like, the yellow foods. And it is a mast cell stabilizer.

So it actually stabilizes those cells so they don't, degree annihilate and release histamine and other inflammatory, molecules into the body. So getting as much of these things into the diet is huge.

And these, of course, are very safe to do in breast breastfeeding and pregnancy. And whatever you're consuming while you're breastfeeding, you know, it's going to, transfer to baby through the breast milk.

So bare minimum is 5 to 7 servings of vegetables per day. And I do focus on vegetables. Just because, if you're really trying to get this huge amount of bio flab, Benoit's into fruits.

You're going to be getting a lot of sugar. And in general, when you have a mild illness, it kind of goes hand in hand with Candida and you don't want to have a ton of sugar in the diet feeding that Candida and mold growth in itself.

And then in pregnancy, you also want to try and limit sugar just so there's not any issue of developing gestational diabetes. So definitely can incorporate some fruits in.

But for the most part you really want to focus on vegetables. And then as far as some of the research on these things goes, they actually can prevent and reverse some of the damage to DNA and some of the, you know, mycotoxins damage that can happen to, you know, exposed fetuses.

And again, this is more through like mouse models that they've drawn these conclusions but mean that's that's huge. That just adding these, you know, very safe biofilm monoids in can reverse some of the damage.

And depending on the situation these can be added in in lower doses. Supplemental leave as well. But start with diet first. Of course. And then the next piece is healthy fats.

So incorporating you know flax olive oil, coconut oil, avocado, ghee good quality butters. Omega oil, omega three oils from from fish as well. I didn't actually put that on here just because there are, you know, other, other issues with consuming a lot of fish in pregnancy and breastfeeding.

Unfortunately, they do have a lot of toxicity or, you know, toxicity is as far as mercury and PCBs, other chemicals go. So I would focus on these others, you know, on a daily basis.

And, you know, you can add fish in a couple times per week if needed. And, the healthy fats, the whole purpose of that is that mycotoxins are fat soluble, meaning that they love fat.

So, they can be stored in fat cells. They actually can can cross into cells a bit easier because our each cell in our body has a fat membrane. So, anything that is fat soluble has an easier time transferring in and out of the cell.

So by incorporating a lot of healthy fats into the diet, we're basically, diluting those mycotoxins and helping to restore and repair, you know, healthy fats cover all of our nerves.

They're part of the myelin sheath. So, you know, our brains need a lot of healthy fats also. So diluting all those

mycotoxins, helping to get them out, but then also repair regeneration.

And then, of course, the healthy benefits for the baby too. Babies need all these good fats for neurologic development. So lots of reasons for, for healthy fats in the diet.

And then the next phase is just adding spices to food. So this is not meaning to add huge amounts because these are not safe in pregnancy. And big amounts, but just the normal amounts added to, you know, to seasoned foods.

Oregano. Stage. Thyme. Turmeric. This can be fabulous. They have a lot of really good antioxidants. These specifically with oregano thyme sage have antimicrobial antifungal properties.

So they can kind of just as a gentle addition help to keep mold and mycotoxins and mold growth and Candida growth at bay. Turmeric I mean I could talk about for days.

I feel like it has so many other really beneficial effects for the brain. It's really supportive to the liver. It's one of the most potent antioxidants.

So all of these are fabulous to just add in, in low dose on a daily basis just to support, the system. And again, just that the antioxidant effect. So as far as adding things in supplemental binders are the very first thing I think of.

So binders, are basically anything you're taking by mouth that pass through the intestines. And just absorb and trap toxins. So these ones are my favorite that I have listed here.

And they work for a whole lot of other things than just mycotoxins. But these are absolutely effective for mycotoxins as well. They bind and trap different, you know, chemicals from plastics, pesticides, herbicides like glyphosate, heavy metals.

And and the big thing like we're talking about is mycotoxins. So by trapping these things, getting them out through the stool, out through the colon, you're avoiding recirculation and reabsorption.

And really protecting these other organs, too. It's less work for the kidneys, less work for the liver, for the skin, for the lungs. All these other organ systems that have to work and try and get these out.

So, these are all used very commonly and honestly cycled through. Most of my patients will have been on all of these at some point. Chlorella is a blue green algae.

I look at it as is almost a multivitamin as well.

Dietary Support: Antioxidants, Fats, and Spices

It's very high in amino acid, iron, omega three B vitamins, different vitamins, other minerals like magnesium, zinc. So it's a really fabulous addition.

As far as research goes on Chlorella, some of my favorites actually show dioxin levels decreasing with usage during breastfeeding. So dioxin is a chemical that unfortunately is in everyone.

And, there's a few research articles out of Japan where breastfeeding moms were taking chlorella, the little tablets that were, like 15 tablets three times per day and dioxin levels, drastically reduced in breast milk.

After after doing that. So it's very effective but gentle at removing these different chemicals and mycotoxins from the body so that, you know, our babies are protected.

Zero or the humic phobic acids are it's they're basically like healthy soil. It's, the components of, decayed, plant matter. So it's they can have a lot of really wonderful benefits as far as healing the gut, replenishing good minerals and, trace you know, trace elements from the Earth.

But also fabulous binders, so it can help with micro toxin removal. Fiber, is one I use all the time. And just by including all of those different vegetables, increasing vegetable consumption, you're increasing your fiber content.

So that alone is also going to be huge for helping, bind up, you know, different mycotoxins, getting them out through the stool and then different types of, clays can be fabulous.

Zeolite clays are one of my favorites. Definitely some good research showing that they can bind a whole variety of different mycotoxins, get them out through the stool, and then charcoals can work well.

Also, charcoal is probably the strongest on here, and I don't have people do on a regular basis just because it can bind so strongly that sometimes it can be a little depleting, can be a little bit nutrient depleting to the body. So, like I said, binders are usually like a first line addition supplement wise, to help with mitigating any micro toxin exposure just to help get the mycotoxins out of the body.

And then for supplements, there's lots of different options. So the nutrient additions, I typically start with are, selenium. And of course, not every person is going to get all of these.

It's a case by case basis. And, you know, depending on symptoms and labs and whatever else may be going on. But selenium is is fabulous. It's a really good antioxidant for the brain, good for babies, babies brain.

And it's also really good for the thyroid. It helps convert, thyroid hormones. So that's a great addition. Vitamin D3 is super important. It really shouldn't be called a vitamin.

It does so many other things. It's immune modulating. In mycotoxins exposure. It's been shown that it actually, mycotoxins suppress and reduce the amount of vitamin D that can actually be utilized absorbed in the body.

It blocks vitamin D and or sorry down regulates vitamin D receptors. So with micro toxin exposure, vitamin D supplementation is is huge. It's also anti-inflammatory.

It's needed for brain development. Huge whole host of things. CoQ10 has a wonderful antioxidant. It's great for mitochondrial support, brain health. It's good for wound healing, good for, you know, the brain development in the baby as well.

So a lot of good things. And there's other nutrients as well. These are just some of the my top favorites. Glutathione is always high on my list with mycotoxins, mold exposures, glutathione.

They call like the master antioxidant. It is, just one of the best things overall for the whole body. It's wonderful for brain health. I use it a lot for liver support.

It's protective for mom and baby for any type of exposure. Whether it's, you know, heavy metals, mycotoxins, tons of research on glutathione, that it's helpful for repairing blood brain barrier, for helping to, repair whatever damage may have occurred with mycotoxins.

And I'm not meaning that all damage can be reversed, but that definitely these types of things can be be helpful. And then the next thing on the list is just the healthy fats like we talked about before.

In addition to incorporating lots of healthy fats in the diet, I do supplement. So phospholipids, specifically phosphate title choline Vos. But I don't say serine.

Very important for helping to repair that cell membrane. And repair damage that may have been done to the nervous system. Vitamin E is fabulous. I'll specifically think of this one, too, when people have any kind of, skin lesions from, you know, mycotoxins, mold exposure.

Typically I'll do a mix of, took off rolls, took a tray, you know, evening primrose oil can be another really great addition. I've had a lot of, midwives recommend it, especially in, like, the third trimester, because that it can help

with ripening the cervix and get the body ready for, for labor.

And again, many other fats that can be wonderful, but these are just a few of my favorite. And then and acetylcysteine. So this one, it's also called NAC.

Very safe in pregnancy breastfeeding. It really facilitates a safe amount of detoxification through the liver. There's some research indicating that it can actually help with, miscarriage reduction, that by taking an acetylcysteine even in the pre-conception and early phases of pregnancy, can reduce the risk of miscarriage.

I use this one often with, with my, you know, every, every population, every age group. Just because it's very safe and can be very effective. It helps with detoxification, helps with just giving the liver extra support.

It's great for the lungs as well. It can help with, thinning mucus, especially because, you know, with mold exposures there's a lot of issues with sinuses, typically just because that's kind of the gateway when you're, you know, breathing in these different mold spores, that's where they like to colonize.

So it can help with, with, thinning out that nasal discharge and helping with just detoxifying lungs as well. Melatonin is another fabulous one. It is a huge antioxidant that I think it's, underrated.

You know, it's so strong as far as the antioxidant capacity, it's much stronger than green tea.

Binders and Core Supplements

And a lot of the other ones that I've, you know, talked about. But melatonin has a great ability to detoxify the extracellular space and of course can help with sleep as well.

I don't use huge doses in pregnancy and breastfeeding, even in kids long term. If you're doing really, really big doses, it can have the effect of altering other hormones.

So like prolactin, cortisol, but in low doses, you know, like five milligrams and under, it's very safe in pregnancy and can actually be very supportive.

And then just on a case by case basis, a lot of other organs need support in mycotoxins, illness, specifically the liver, the kidneys. Sinuses, lungs.

But some of my favorites are milk thistle, dandelion, different minerals. I love the things like the Quinton Water and Bio Ocean. So lots of options that are safe.

And then, I love also low dose naltrexone. So this is a prescription medication that's used for a whole variety of conditions. Probably the most research I have looked into it for is, autoimmune conditions.

Low dose naltrexone has the ability to just gently, modulate the immune system in the effect of ATH1 to two pathways. So there's this balance that plays, the TH2 pathway is typically more of what you think of with like autoimmune conditions, mast cell inflammation, allergies, histamine like, you know, basically what's what gets triggered in micro toxin illness where t one is more of the effect of, the ability to stabilize, create antibodies, treat infections.

So it micro toxin illness, you typically have this, you know, shunting of the H2 pathway. So low dose naltrexone helps to shift that. So we're getting a better balance.

The TH1 to two pathway. So in that sense it helps with reducing mast cell response helping with reducing inflammation. And overall helping reduce autoimmunity.

There's tons of information, research out there with helping to stabilize autoimmune conditions. Also helping us with chronic pain, you know, migraines, headaches.

And then I also use it in kids. It can be fabulous for ADHD and helping with focus. So a very safe, well tolerated, prescription treatment. That can be a good addition as well.

That's safe in pregnancy and breastfeeding. Again, just to stabilize. And then the last thing I wanted to bring up is, lda and ld I. So I'm a huge fan of these two.

This stands for low dose allergen therapy and low dose immunotherapy. So these are basically, almost like a homeopathic preparation of different substances to help create tolerance in the body.

So LDA refers more to food allergy or foods and environmental, toxicities issues like pollens and cat dander, just, dust particles, mold mycotoxins where ldi typically you do more of like infections, like parasites and Lyme and yeast and different bacteria.

So I typically will do a combination of these things. In in pregnancy, breastfeeding in kids. Again, you want to be very gentle. And do you know, as much as you can, like, start with more dilute and work down.

Just to make sure we're not creating any type of timer response. But this can be a great way of just helping to slow and modulate that immune system reaction to mold and mycotoxins.

So I'll definitely do like the mycotoxins, and molds. But yeast is a big one for this too. So I'll do the yeast LDI very commonly in this population. So the next thing I wanted to talk about, are more of the systemic and intranasal treatments.

So with mycotoxins and mold exposures, there's really a twofold problem. So for one, you have the mycotoxins, the actual toxins that need to be, you know, both avoided and cleared from the body.

But you have the other piece of it is where these mold spores can actually take hold and grow on the mucous membranes. So your sinuses are the gateway.

It's the most common place for things for the, mold spores to take hold and grow. But they can happen anywhere. Any mucous membranes. It can happen in the sinuses.

The lungs, the entire GI tract. So, it creates this issue of both detox, a gentle detox, the stabilizing, preventing, you know, the micro toxin exposure, but then also treating and preventing this colonization of mold and yeast growth.

So, there's biofilm considerations, which I'm sure you'll hear a lot more about biofilms, but biofilms are this, protective mechanism that a lot of different organisms use to prevent any type of, immune system disruption.

So biofilms are this casing that protects different bacteria, parasites, molds, yeasts, and they actually come together and, you know, band together to create these biofilms.

So it's been shown that biofilms consist of of yeasts and micro mold, mold spores, parasites, bacteria, a whole host of things that come together and try and create this protective barrier.

So again, I don't try and break open biofilm during this time, but it's really trying to prevent biofilm, stabilize the biofilm. And then like I mentioned, just antifungal.

So depending on how, symptomatic and how sick mom is, sometimes we do need to treat with an antifungal. If she's having really bad, you know, vaginal yeast infections, skin, yeast infections, you know, GI tract infections.

So it's a case by case basis. But my favorite systemic things overall, are definitely garlic. Garlic I use often in pregnancy and breastfeeding. It's a very safe, intervention.

Garlic can be added in through the diet you can aim for, you know, there's no set amount. But I tell moms usually about for cloves of garlic per day. So it's a lot.

Or you can just do like a capsule version of that. Garlic is a wonderful antioxidant. It's anti-parasitic. It's antiviral. It's antibacterial. And anti yeast as well.

So it's a great systemic treatment. Very safe in pregnancy. It has been shown to actually have improved outcomes for babies as far as like bigger birth weight.

And the only thing you want to watch out for is, you know, if baby is sensitive to it. You know, sometimes if you're doing too much garlic, it can create gas and bloating and colic.

Immune Modulation and Gentle Therapies

So you do need to be careful with that piece of it with the baby, with the breastfeeding baby. And then also, you know, if you take too much can make the milk taste like garlic.

And then you can have, this refusal from baby. So, there's definitely a dosing consideration and case by case basis again. Olive leaf is another one I use commonly.

It's especially helpful with, viral infections and keeping viruses at bay. But all of leaf in general is another wonderful kind of shotgun approach that has some antimicrobial anti yeast effects.

And there's again other systemic anti antifungal things that can be used. But those are some of my just a couple of my favorites. And then as far as nasal sprays I really love our gentian 23 silver.

So this is actually a silver hydra. So it's not a colloidal silver. It can be used as a nasal spray mouth rinse. It can be taken internally. I look at this one as more of, like, a, biofilm stabilizer.

It's a really great antibacterial as well. Another problem with, you know, mold, illness in the sinuses is you get these opportunistic, kind of hard to treat bacterial infections, like, you know, antibiotic resistant staph infections.

So our gentle 23 can help, prevent those types of infections and to stabilize. And same with xylitol. Xylitol is another fabulous one just to use as a nasal spray.

I mean, you know, nasal congestion and, sinus strain is just really common symptom in pregnancy anyways. So sometimes those xylitol can be really helpful as well.

Propolis I'd say, is one of my absolute favorites. I will use this one just systemically, but not during pregnancy and breastfeeding. Propolis is that sticky bee product that's a really fabulous, antifungal.

It's also a good anti-bacterial as well. So it can help with treating that, you know, the antibiotic resistant staff and any other type of infections that can come up in the sinuses.

Probiotics can be fabulous. You know, they do make some different sprays, or you can even certain probiotics you can open up into, like a sterile saline spray up into the sinuses just to repopulate the good bacteria in the sinuses.

And breast milk, I mean, breast milk is like the, you know, the golden ticket for everything treats everything. If the mom is breastfeeding, you can absolutely put a little breast milk up into baby's sinuses and mom sinuses.

It's a wonderful addition to help increase the immune system, in the sinuses. And then, of course, it's a gentle treatment for yeast. And, bacteria as well.

And if needed, there are medications that can be used. I do use fluconazole from time to time. This one is more of a systemic treatment. It gets systemically absorbed.

So it's going to be the best if there's like a natural yeast infection, or just a whole body. Issue. Nice. Statin can be fabulous, but it really doesn't get absorbed systemically as well.

So this one is going to be good as like a topical cream. Used as a mouth rinse. It's it's great. You know, if there's just a GI tract issue. And, there's other antifungal medications like hydrocortisone and other things that can be compounded and used as a nasal spray as well.

But those ones I wouldn't use, in pregnancy or breastfeeding. But lots of options again, depending on where mom is and how symptomatic. These can all be used and cycled through and be used, with great success.

One of my other favorite ways of getting things in is diffusers. So this is great for cleaning the air. And, you know, a more gentle treatment even for kids that can't really do, nasal sprays.

So one thing, I feel like that's talked about so much right now is the vocal. So this is, hypochlorite acid. It's a biotech is typically the brand that we use, but this is another really fabulous kind of shotgun approach.

CL is kind of anti everything antibacterial that it anti-viral antimicrobial microbial antiparasitic. It it deactivates mold spores in the air. It's really great topically for wound healing as well.

So this one is very safe to diffuse in the air. It can help with cleaning the air getting mycotoxins out. It also can technically be used as a nasal spray as well.

But it's just so easy to have in a diffuser in the background, just, you know, on a constant level, we have this going in the office. It's so wonderful.

And then other options as far as essential oils, thyme, eucalyptus, cinnamon, lemon balm, these all have you know, different, you know, a little bit different effects.

But in general, you know, the time and eucalyptus I think are the strongest as far as, deactivating mold spores and, you know, a gentle treatment effect.

Lots of other essential oils that can be used, but these are some of my favorites. And then, of course, propolis. Propolis I wouldn't necessarily use in, in just a regular diffuser.

They do have specific propolis diffusers that you can purchase. And they come with these little like propolis cartridges that emit propolis into the air.

And they actually and I think it smells kind of nice. Puts a little scent of honey out there. And you can nebulizer, they come with an attachment where you can nebulizer to get a sinus treatment and a long treatment as well.

Nasal, Airway, and Environmental Treatments

So lots of options that, you know, you can just have going in the background, treating the air, treating you, and, you know, potentially your the rest of the family.

So I wanted to just end with a case. This was one of my favorite cases just because it was such a fast turnaround. I had a, a little boy come in and eight year old little boy, and, he came in with main symptoms of rage, OCD, insomnia, to the point that he was just uncontrollable.

Mom had pulled him out of school. He, you know, obviously was not progressing in school, wasn't learning anything. And at home, he was just extremely defiant.

He was, you know, punching holes in walls. He was even having some self-interest behavior. Really just out of control. And this hadn't been his typical patterning.

So I won't get into all the details of Pandas and Pans, but he was a pretty typical pandas and pans kid. I mean, he had had some issues from birth as far as problems gaining weight and just minor like GI stuff.

But this was really, you know, a peak for that, for this family. And mom came in with a little five week old breastfeeding baby. And so kind of diving into the whole history for the family.

It became very apparent that they were living in a mold, toxic home. So we did some testing on the home that confirmed it. And mom really jumped on board quickly.

They moved so fast. They, like I said, they just were at this peak. They they were all at a point where they needed some change. Even the little boy, like, he wanted help.

He was willing to do anything. He was willing to take growth supplements. He was willing to get blood draws like they just needed to have some change.

So they immediately moved from the home, got rid of everything, and started over. And during that time when they did really dive in, then, you know, I started hearing all the other things that were happening.

I mean, thankfully, the dad sounds like he was the only one that was, you know, handling that environment somewhat. Okay. But, you know, it's just a matter of time.

But mom had actually had four miscarriages in this home. And of course, we can't say it's because of the mycotoxins, but, you know, it's a very real possibility that that's why.

And thankfully, this baby, you know, didn't have any birth defects, actually did pretty well, considering, you know, that whole nine month, gestational period was in this home.

But mom, thankfully had done a lot of research on her own as far as just ways to help her son. So she had already done a lot of dietary changes, and, was already doing lots of good support for herself.

So that probably had a big piece of, a big, big piece of why that baby actually did so well. So with the little boy, we had run a lot of labs on him because, you know, I just wanted to make sure we had all the information we could get.

He had a ton of immune suppression, so I actually did, refer them to an immunologist just because his immune system was so suppressed. I just wanted to make sure that there wasn't something else going on.

But thankfully, you know, you know, looking back, I still think it was a good just to cover our bases, but thankfully, nothing, nothing big was going on.

As far as, like, cancers or bone marrow suppression, it was really just everything that he was his poor body was dealing with. On top of that mold exposure, he actually was dealing with a chronic strep infection and Bartonella infection.

And like I said, mom actually had him on some really good herbs, but they just weren't able to take effect when they were living in this home. So overall, like he did have low, low IGA, low KD 57.

Just like I said, a lot of immune suppression.

Case Study and Clinical Outcomes

So we really put the whole family on a treatment protocol, even though mom really was putting her son first, not really wanting any treatment for her or, you know, anyone else initially.

They ended up being the whole family became patients so that we could get everybody, optimized as fast as possible. So, specifically for this little boy, we did a lot of, propolis.

I actually did have them do some probiotics alternating in there with, the propolis intranasal systemically. He did a lot of, herbs, but specifically for mold was doing like oil of oregano, berberine.

I would not do these in pregnancy and breastfeeding, but just kind of giving an idea of what I did for the boy. And then for mom and baby. All right. Mom and, the breastfeeding baby, she was the little boy was getting there.

The breastfeeding little boy was getting these through. Through mom. We did a lot of the glutathione NK milk vessel. And, of course, you know, prenatal oils and, you know, good methylated form of B12 and folate, lots of good nutrients.

Gut healing for both mom and for the eight year old. And it was such a fast turnaround. Within two, two months, they were seeing huge changes in this little boy.

The eight year old was able to start back up with schooling. He was starting to incorporate in different co-ops where he was, you know, learning how to, he was learning how to knit.

It was really interesting. He wanted to learn how to knit and had all this, like, crafty, artsy mind. And he was, within two months, he was starting to able, you know, get into that again and, with, with the breastfeeding baby, with that five week old, he, started thriving.

I mean, thankfully, like I said, we didn't have any, actual, like, neurologic disorders, any major issues. He was a little bit colicky. But just getting these different treatments in through the breast milk for mom. He didn't have any ill effects from the micro toxin exposures.

So, like I said, this was a really fast turnaround. Two months is almost unheard of for a lot of people, but, I continued to see this family for, you know, probably at least it was probably a year and a half.

And, I mean, the little boy just continued to thrive more and more and more. And, basically all of the rage, OCD, insomnia, you know, completely resolved.

He still had this little, you know, little attitude. But I think, you know, it was kind of a fun little defiant, quirk. And so it was just fun to see his little personality come out.

And so I think, you know, that age group can still be a little bit of a struggle, but it was it was more of like this fun little quirk versus an actual, you know, horribly defiant rage, OCD.

You know, holes in walls. So I wanted to just give that, case study as, you know, positive light to what can happen and how fast. Again, that was a quick one, but but definitely can be turned around.

So I really appreciate everyone listening. And, again, I'm honored to be a part of this mycotoxins summit. I hope you learned something. And, I'm happy to help and answer questions if anything comes up in the future.

So thanks again.