Turning Autism Complexity into Clarity: How Science, Data, and AI Are Transforming Care Transcript

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Autism prevalence and diagnosis basics

Hey everybody, Dr. Rob here, Proven Health Alternatives. I've got a superstar in the topic of autism, Doctor Teresa Lyons. Thanks for joining us, Doc.

Oh, my pleasure. I'm going to lay the groundwork real quick. Let's get into it. According to the CDC, the prevalence of ASD in the US is estimated to be 1 in 31 children.

That's 3.2%. The rate is higher on boys. Maybe you can address that at some point, 1 and 42, whereas girls are 1 189. The median age of diagnosis, I know you said that you want to make an addendum to that, is four to five in the US today.

And there's been a dramatic, precipitous increase in recent years with a rise of 175% of the diagnosis of autism between 2011 and 2022. What is going on?

There's definitely a lot going. There certainly is. Diagnosis being four to five years old, that's the average age, certainly, but a reliable diagnosis can be made at 18 months.

So there's a huge gap and a large amount of time where symptoms are not improving, they're getting worse. That waiting is not a very good strategy. The average diagnosis by a quality practitioner is 18, which begs the question, what's quality diagnosis?

What are you utilizing to diagnose ASD? There's, so right now there is not any medical tests. So there's no blood tests, there no urine tests no MRI. There is no medical test that can be done to diagnose autism.

And that's where a lot of this complexity comes from. You usually have to put together observations from a speech therapist and occupational therapist.

physical therapist, educator, and then you go in front of a specialist, usually a developmental pediatrician. And they pretty much observe your child and give the diagnosis based upon observation.

So it is very gray. It can be very frustrating to parents having to put together all these different observations. technology is trying to be used more and more.

So using AI and looking at eye gazes and things like that. Um, but still the, the majority of diagnosis are made based upon this human in observation and, and a, an accumulation of them.

It's based on behavior of symptomology then is based. Correct. There's no blood tests. No, there's, nothing where you get a piece of paper with a number and you say, Oh, okay.

Like you would if, you know, prostate cancer, right? There's a number, with so many other medical problems, there's number. But with autism, they're not.

Scientists have come to a growing consensus that there is not one thing that causes autism but a combination of multiple genetic and environmental factors.

True or false? True, 100% true. 100%. And it varies. for each individual. So this is where autism can get so complex. There can be a genetic component.

Let's say someone has mutations in a particular gene that doesn't allow for detoxification as well. That means their toxic load is going to start to increase faster than let's even a sibling.

Genetic and environmental contributors

Sometimes the question is, Why does one sibling have autism and the other doesn't? So you can start with genetics and then the environment just adds to that.

So one child might be sleeping in a room that has a leak around the window. And so that child who has detox challenges from a genetic aspect could be the only person in the house that have mold issues in their room, right?

see a picture of what could possibly result for an autism diagnosis, right? So if someone is in detoxing and they're exposed to a toxic environment and then sleep starts getting disrupted, that's when we do a lot of our detox with the cerebral spinal fluid.

You can start to see how things could add up to what would look like autism, which would be diagnosed as autism if it got pervasive enough. So down the road, do you see a specific test?

Do you a see specific marker being utilized as the gold standard to determine autism? I don't think there's going to be just one. I really don' t. It's so complex.

There's there so many things. So you're looking at root causes. resolution as opposed to root cause. Fascinating. Now, you are the founder of Navigating Autism.

Yeah. And how has your journey as a scientist and parent shaped this mission? I would not be here if it wasn't for being a parent. So I was not involved in autism whatsoever.

My daughter was diagnosed when she was three and a half years old, which is a little bit on the late side but again with the diagnosis we were trying to rule out everything before that so you know we did different genetic testing and chromosomal testing.

and hearing tests, you know, we were really trying to eliminate everything and it takes time. So the, the I always feel like I was starting a bit late, three and a half.

I do know a proper diagnosis can be done at 18 months and that time really would make a difference. And when she was diagnosed, then it just became, okay, now what do we do?

And the answers that were coming back was, well, this is a lifelong diagnosis and there's not really anything to do. We can kind of manage it a little bit, but things are pretty much going to get worse.

They're not going get better. And it was just this overwhelming sense of that's, not a good answer that really got me down this path. So, I have a PhD in computational chemistry from Yale University.

I worked in the pharmaceutical industry, both in R&D and then also in business side. So I understood how pharmaceuticals industry operates as a whole, not just R and D.

And I also worked, uh, in nonprofits, um, delivering healthcare to developing countries. So when someone was telling me, wow, there's really nothing. I'm just like, that's not a good answer.

So I was able to put together all of this experience into going to PubMed.

Personal journey and finding reliable research

That's where you start quality scientific information. And I start there. Yes, the information is quality, but also it's so far advanced from what you would get from walking into a regular doctor's office.

So typically it takes 30 years to go from scientific discovery to mainstream practice. And I didn't have those 30 to wait. I just focused on working with the doctors who are doing the research understanding the research and getting my daughter the best care possible.

Well, you have a personal stake in outcomes when it comes to autism, and that's the driver. Again, so many people on this podcast have come on because of something that's happened to themselves, a friend or family, or some patient that just gave them a change in their vantage point and what they wanted to do, so they vector in to really hone in on some great answers.

There's so much conflicting information in autism. We live in a world now of who do I trust, what do i trust? Where do parents go to trust something or get information on autism?

So I went to PubMed, and that was a unique situation just because that's what I did for academia, that is what they did my career, it was very natural for me to go there.

I also looked at a lot of information online, reading different Yahoo articles and things like that. They're not really trustworthy. So you really have to look at who's writing it and their motivation.

In the beginning of my journey, I did go and read these two Yahoo articles, and they were saying about how autism is this lifelong um, diagnosis and nothing can change.

Whereas I had read in PubMed numerous researcher articles, but like clinical trials showing that an autism diagnosis can be lost, meaning health is regained.

Uh, back then it was called optimal outcomes. So I felt so conflicted. I have this quality research that is showing me that the diagnosis is not lifelong.

And then I this Yahoo article, which I this is something that's really popular. A lot of people are reading this. This is getting pushed out to many people, this should be true.

So I actually reached out and I asked him about his research and he said, listen, I got to be honest with you. I put those articles together in about an hour each.

And I was just stunned because I could have made decisions. What if I never decided to take action because of these articles that I read on Yahoo? My daughter's life would be entirely different.

All the information, especially in autism can make the difference between a life of your child growing into their potential or a lot of health issues and misinformation.

Wow, I mean, you would have thought that it would be better studied. So speaking of which, there's a plethora of articles talking about how the gut involvement can adversely affect people and lead them down the path of ASD.

I have an article here from 2019, only six years ago, co-occurring pathologies found in ASC. They talked about increased amount of activated microglial cells, micro glial cell on the macrophages of the brain, when they're increased in or they are M1s, they become very deleterious to overall brain matter, altered expression of the tight junction in the gut, i.e.

leaky gut gastrointestinal symptoms, increased permeability of epithelial barrier in a gut. Mitochondrial dysfunction. So we're looking at everything in that gut-to-brain axis.

What is going on or can I say that the got, as I said before, is the epicenter of your health, the gut may be the epicenter of where we want to start treating people with ASD.

It's definitely a focus and it should be a central focus for parents who start out. A lot of times parents have this intuition that something isn't right with their child's gut or digestion based upon their pooping the child's pooping.

So kids are either constipated or they're having diarrhea or having this combination. And a lot of times that's that initial experience that parents are noticing, like my child is not poop well.

Then if that kind of goes on, then you could start to see maybe some bloating, right? And then, you start seeing other behavioral symptoms increase, which makes sense when someone's not digesting well, and you're digusting three times a day, at least, right?

You're going to have an accumulation of issues. So when parents notice these things in the beginning, these are really important things to identify and then also resolve.

So the symptomology will indicate that there's something wrong with the gastrointestinal. They can do a poop test, like you said, and look for increased calprotectin.

they could do also some other tests looking essentially at how the gut alters the immune system metabolism. This is another article from 2017. Higher intestinal permeability with higher antigenic load from the gastrointestinal.

Here are some numbers. LPS, lipopolysaccharide, is increased in autism. The gut microbiota is less diverse in ASD. Candida is twice as abundant in the ASB.

And here's the takeaway. 90% of people with ASC have some sort of gut issue. Yes, yes.

Gut health, diet, and food sensitivities

And also, so this is where the complexity comes from. Not every child with autism has Candida issues, right? So this where you have to take this information, but then really understand, does this apply to my child?

Autism has that two-fold problem where there are so many issues that you really have make sure to focus only on what is really necessary for your child.

That's something where with doctors, it gets complex, right? Because doctors are seeing so many patients and each one can present quite differently. So doctors really have to spend time with the patient to understand, okay, what are the top issues and then do the appropriate testing to eliminate certain issues.

And then diet, we haven't even talked about diet yet. Diet plays such a huge, role in just in everything, right? So like, that's, how you're introducing the external environment.

And we, as children, incorporate what we eat into what grow into. So when you start to have issues, let's say less diverse gut, because that does happen quite early on.

That means you might not be digesting and producing different vitamins, sometimes don't remember that in our large intestine, we have bacteria that actually producing different vitamins, like vitamin K, essential, right?

There's so many aspects to optimal health that can break down. And it might seem so small, but it's hugely important. So diet or food is our conversation with the outside world.

We were talking about the idea of ultra-processed food, additives, emulsifiers, and things like that. There was a study done at the beginning of 2025 in reference to food sensitivities in gluten.

And people who are children that had a sensitivity to gluten had an 93% rate of autism. They didn't study dairy yet. I'm pretty sure dairy will probably be in the same realm and with that same number.

So with, that what foods would you say, you know what? I want to take away from my child or your child because there's such high sensitivity allergy and they're detrimental to one's overall health because they raise inflammation at consumption.

So diet is one of those first steps that parents need to look at. It might not be the easiest, right? Because it's like, oh my gosh, I remember when I changed my daughter's diet, and I didn't want to, like gluten.

I did the research. And I saw how valid gluten just impacts so much of the body, so it makes the mechanism of action is the same for everybody. You make something more permeable, which is not meant to be, right?

So I eat gluten, you know, the same thing will happen to me, but my immune system, let's say is functioning pretty well and it can kind of clean up the mess in 20 minutes on average.

That's usually what the research shows. It takes for the gut to become back to being nice and tight. So that's not too much of an issue, But for let say a child, Let's go back To that early example of a Child who has detox issues to begin with genetically.

and then is sleeping in a room with mold. And let's say they're eating some food that they might have a sensitivity to, and they are not getting like omega threes and not taking vitamin D, right?

So the immune system now is not able to function well. Then they eat gluten, which makes things more permeable, meaning the system has to step up and clean up.

It's a losing battle. how can the body really perform? It can't because it has all these things stacked against it. And so starting with something simple like gluten and saying, okay, let me remove that for now just because why put that extra burden on the immune system, right?

So like that would be your first step. Many times the children start to get a little calmer and then you start And then you might notice, oh, wow, whenever they eat tomatoes, let's say they're eating tomato sauce or pizza or something like that.

Wow. Whenever they that I'm noticing these kinds of behaviors. So then, you can start to really focus on what is meaningful for the child. But a lot of times, diet is where to start.

especially being gluten-free. Having worked with a food sensitivity company, there was an IRB study that spoke about the removal of food sensitivities and the number one set of symptoms that abated were the proverbial mental health.

Number two was gas and bloating and brain fog, which is no surprise. So what I'm hearing from you is that this is a multimodal effect. It's a cascade, it's compromise of the interconnection of systems.

However, I see this bright light behind you, not above your head, but behind, saying that there is this option, and it sounds like there are some strategies and protocols to help people get over and get past this ASD.

And I know that with your navigating autism matrix, you've helped families move from confusion to clarity. Why don't you share some of them with us now?

Sure. So there's seven categories. And the first one is diet. We've been talking about it. Oh, and let me say it is a circle, right? Because this allows parents to start where they feel they'll be most successful.

So it's about starting and having some focus, getting some wins, and then really creating that synergy. So diet is certainly important. We also have healthcare team.

Um, we need body doctors and that's plural. It's not just one. Supplements and prescriptions. Those are really important to have a logical reason as to why you're giving your child something.

This is not about, oh, just give anything and see if it works. Then we also have probiotics. As you mentioned, the gut is hugely important. We have educational approaches.

And then the last two are mindset, which is really because research shows that parents whose children have autism, they do have a higher rate of PTSD diagnosis just from having a child with autism.

So this is a very stressful situation. There are some kids who don't sleep for years, right? And that really wears down the parent's body. It wears just overall ability to function in life.

So really being mindful of the parent's mindset is important for this journey. And then the last category is celebrating success because that's what keeps everything going.

We celebrate all the steps. Large steps, small steps kids starting to speak, kids just pooping every day. It doesn't matter. These are really big milestones that make a difference and help keep the parents Going on this journey because there's not one thing that is just gonna like magically fix their child overnight, it is a journey and they have to have that consistency.

It's much like endurance training, you know, if you're going to run a marathon, You've got to get your mindset for a Marathon you got keep that pace. So that's what we certainly try to make sure parents understand and celebrate along the way.

Yeah, there is no lottery ticket to health, especially with ASD. Like you said, it's one step at a time on a trail. I'm going to do something very New York, but you know, you went to Yale, so New Haven's not that far from New york.

It's Not the same, But it is close. From NewYork! Oh yeah, what part? I was born in Brooklyn, in the SUNY downstate, and then I Was raised in Bayside, Queens.

Well, I'm a Bronx guy, so I feel your pain. But I get the brass knuckles approach. So I want to do a rapid New York rapid fire. I wanna get back to your seven steps.

Okay, yeah. Give me one thing in each that somebody should write down and jot down, and do so they can take that one step towards health. Diet. For diet, uh, I would say gluten-free.

We can talk about diaphragm relating to leukovorin a little bit later, but that would be… I'd like you to pick that up after the rapid fire. I think that'd be great because you have a lot of YouTubes out there on that, and I it's a very salient conversation.

Doctors, what kind of doctors are on your team? Conventional doctors and functional medicine integrative doctors. So you've got to have both. There's different tests that…

You have to work the healthcare system in the sense that every doctor has important information that could help your child. So you don't want to just negate an entire field of healthcare practitioners.

Functional medicine and integrative doctors will help you get at the root cause. If you build a great team, conventional doctors, we'll work with the functional medicine doctors.

Seven-part autism support framework

And then you can use insurance to cover a lot of the tests and a of things that sometimes parents just pay out of pocket when they don t have like a complete team.

Um, things like hearing tests, that's conventional medicine, but can make a huge difference in a child's life. If they're not hearing particular sounds, then that means speech might be an issue that still might, there still be in autism diagnosis.

But if you don't understand the complete picture, you're doing a disservice to your child. So. All doctors. I love it. All in a central cause to get the patient better because it's all about patient outcome.

Correct. Yeah. The parent has to have the strategy and then they use the doctor to weigh in on that particular expertise that that doctor has. And that's what makes a difference.

What supplements are you recommending? I'll stretch the answer to three. Give me three Okay, three? All right. So these are based on science. Usually important, right?

It's not a surprise. Usually with K2, I gotcha. Yes, yes, of course. But that's important for the immune system. It is important to sleep. So there are some really large health challenges that kids with autism have that I've seen change unbelievably just by having vitamin D levels.

If you do it as a blood test, make sure you have adequate vitamin levels, but when the kids are in like the 60 to 70 range, It's just the body has part of that fuel that it needs.

And then if you're not taking any vitamin D supplement, typically your blood test result for your child would be like in the 1920. So you can see how much is needed.

This is where you would work with a conventional medicine doctor to do the blood tests, right? Insurance would pay for that. And then you might work with a functional medicine doctor on other aspects of the immune system.

Vitamin D is a great example of a difference in the number outcomes that people are looking for between the conventional and the functional of medicine.

Theoretically conventional says you're okay if you are 30, and functional Medicine kind of wants it at 60. So there's somewhere in middle, kind like the spot that Mark Hyman talks about, he cuts it down the middle.

I feel like conventional medicine doctors are And maybe this is AI, but I feel like there's not so much of antagonism between like the 30 and the 60 for functional medicine and conventional medicine with vitamin D, certain other areas.

But I think there is a convergence happening over certain basic aspects of health. Absolutely, and I love my conventional doctors. They do a great job.

And I believe, believe me, in most of my cases, I co-treat and get a lot of referrals and refer regularly to them. Yeah, team. As long as the goal is the patient outcome, we're all good.

I think we're all good, you know, that N of one is all about that patient. You mentioned probiotics. Probiotics is a different category. Do you want me to do the two other supplements?

Do the other two, two of the supplements. I'm doing my Bronx moment. So the second supplement would be a digestive enzyme. So, because especially if the child is having gas or bloating or, you know, a lot of times with autism, kids are doing something called posturing.

So when communication is a problem, You can't just say, mom, my stomach hurts, right? And they might not even necessarily feel the stomach hurting. so a lotta times what kids do is they hang themselves over like a couch.

or chair, and they're putting pressure in weird positions, but they are doing that to relieve the pain of, let's say, bloating or constipation, things like that.

So if parents are starting to see behavior like, oh, that's some autism behavior, you want to start to look at health and say okay, Are they having gas?

Are there having constipation or diarrhea? And there's pain in that area and somehow putting pressure on it helps. So that's something to really think about in autism.

Interesting. And the third one? Third one, not necessarily a supplement, but I would say a hydration pack. Kids, a

lot of times they're either drinking sugary stuff, right?

Not the best. Or they're not drinking enough, especially kids who are active. And hydration can impact cognition. It can affect so much. So when a child isn't adequately hydrated, they are just starting behind.

Hydration would be number three. When you talk about hydration, you're talking water or you are talking about water with maybe some electrolytes? Water with electrolyte, but not with B vitamins.

For kids with autism, you want to just look for potassium, magnesium. You don't want anything else really in the hydration packets that are sold. So you just want pure hydration.

Now I can bring into the fold probiotics. Yes, yes, probiotic. Super important. So one, you touched upon how candida is twice as common in kids with autism than in children without autism.

And so that is a whole issue, right? To deal with functional medicine or integrative medicine, really getting at, okay, does my child have a candita infection?

What is the level? Is it a mild infection, is it pretty strong aggressive infection. Do we need a prescription? Can we do supplement? So that's that aspect of Candida, but then you need to rebuild the gut so that these opportunistic infections like Candido don't come back.

And a lot of times parents don't do that. So they might work with a functional medicine doctor and they give antifungals and then they reduce the candida for a little bit.

But then once they stop that antofungal, whether it was a prescription or supplement, the Candida comes back. And with Candid, there's behaviors that are strongly associated with the candidate infection.

You have like inappropriate laughing. Sometimes kids will wake up in the middle of the night and just start laughing And this is from a Candida infection.

You can also have real extreme moodiness. This is where craving for sugars and carbs can stem from. There's other reasons that kids might be craving those sugars, and those carbs, but this where that really strong desire, like kids will start climbing the walls to get sugar.

And it doesn't matter whether it's, you know, a banana or a cookie, Candita doesn' care where the sugar is coming from, So when you have Candida as an issue, yes, we have to address all of that.

Right. And then you to use probiotics to really start to repopulate the gut.

Supplements, probiotics, and hydration

So a first one that is very gentle and mild is acidophilus. And it makes such a difference when candida is an issue and you reduce the levels of candita in the gut, you need to replace it with something.

You start with acidrophilis, and this is not like a huge stretch, right? Because many conventional doctors, when they give you antibiotics, they say, eat some yogurt, it'll do you good.

Why is that? Because it's a fermented food and acidophilus is one of those major components in yogurt. So really starting with acidaphilis as a probiotic makes the most logical sense and it is not controversial either.

It's interesting what you said about Candida and I don't want to get off the main road on the highway which we are talking about which is autism. However, Candida implies that it's dysbiosis, that unleveling of good and bad bacteria, which you're really speaking about because you want to repopulate with the probiotic.

But the big question is, in adults, for me, it is always a pre and a probiotics. For the little ones, do you wanna give

them pre- and pro- or just probiotical?

Sometimes that depends. Sometimes it a little too much and parents notice Especially when constipation is an issue, there are certain prebiotics are a little bit more advanced.

That's definitely not step one. Okay. I'm happy you gave me some clarity on that. So let's hit education. There's so much about education, so many parents learn about ABA, Applied Behavioral Analysis.

that is what is considered to be the gold standard and insurance does pay for some of the therapies that your child could receive. The way ABA approaches things is basically repetition, high amount of repetition and the motivation is extrinsic.

So we might have, you know, the colors spread out and I'll say to the child, point to red and let's say they point blue and then I might take their hand and show them, no red, right?

And then, I would say, okay, let me point red. And let say in this case, they pointed red And I give them an M&M or a cookie or I say do five of these in a row and give you an iPad for 10 minutes or so.

that motivation, you know, like if the child isn't hungry, maybe they just had breakfast or lunch, and maybe They had dessert, they don't want a cookie.

So does that mean they're not going to be as tuned into learning? Yeah, it does. And that only works for as long as you can basically extrinsically bribe someone.

So when kids get to about 15, 16, you know, like those extrinsic motivation doesn't work. So ABA is great. Again, this is where it's using what your child needs.

A BA is when you need to learn how to tie a shoe. When you to like put on your pants, right? Anything that is systematic and doesn' really have, those are the things you got to do.

You got do them because you want to go outside, but oh, that's where It's intrinsic motivation. So when you can teach a child to tap into their intrinsic, right?

Maybe they learn to put on their jacket because they want to get outside faster and they wanna play. There are different educational approaches that tap in to teaching a with autism intrinsically motivated.

And that's what also allows the child develop more dynamically. So that they're not thinking about the world is either yes or no, I get a cookie or I don't get it cookie right that's not the way the World operates.

Their different educational approaches that really helped I teach dynamicness. So those are all important to understand and important apply to your child when it's most appropriate.

I love it. And I also love how you say you finish with a celebration. and I agree with you. Patients need to take a bow sometimes and you need clap for them when they overcome certain hurdles and they turn their life around as they walk towards the light at the end of the tunnel, if you will.

Um, I know you wanted to talk about antibodies because it's in the news. It's not just Tylenol. That's just vaccine. There's something that is pertinent in reference to autism.

So once again, the floor is now yours. All right. Leukovorin is a hugely hot topic right now. Um. The FDA now has approved Leukevorin to be prescribed to children with autism, um, and I would just like to talk about the science for a moment.

It's a great advance, but if there isn't guidance, then some really great science could seem like it's not meaningful. And it is. So we can start first with the antibodies.

In children who have autism in which speech is difficult, About 70% of kids with autism have autoantibodies in their brain that block folate. So folates, vitamin B9, can't get into the brain and be utilized where it's needed, right, for a growing and developing child.

They need it for speech. The brain needs to utilize that B nine. And when you have antibodies blocking the bring from using that be nine, speech then suffers.

So there has been developed a blood test that tests for antibodies to see if the child has these antibodies. And if they do have the antibodies, the leucovorin is used basically to just saturate the brain.

So leucovorin does not decrease the amount of antibodies in the. It does. Not impact that whatsoever. Basically you're giving more benign prescription benine.

just so that the concentration is so great that brain can actually utilize what it needs. And then kids start speaking. It's been amazing. So what the largest change I've seen is a child in six months went from not speaking any language whatsoever.

Leucovorin, folate antibodies, and testing

to speaking four languages. Now he grew up in a family that was, so this is the other aspect to autism, right? He didn't learn those four language in those six months.

He was learning all along. And so it just was that he couldn't express it. Once the health issue was addressed, the essence of he didn' have enough B9, Then he was able to express all that he knew and went from not speaking to speaking four languages.

That's fabulous. That's amazing. that's exciting. So when you have a good health care team and you can understand the problem and say, okay, let's do the testing and then let us get the appropriate treatment.

And then you a parent who is dedicated who's saying, Okay, yes, I will do this. I'll give Leukovorin twice a day. Leucovorin is something that has to be titrated up slowly.

You don't want to just bombard the brain with a lot of B9. That's not going to go well. So for parents who are considering Leukovorin, you definitely want work with the doctor who knows how to titrate slowly, because you could see things like aggression and irritability and sleep problems.

And some parents might say, oh, no, like, I just can't handle that. Rightfully so. But maybe it was given too fast. which is testing for the antibodies, then you wouldn't know, should I really stick this out?

Should I decrease the dose? Like how much should focus and spend time on resolving this? If the frat test came back positive, you would know. No, lukewarm is important.

He does not have the vitamin B9 in his brain that the brain needs to utilize. So you work it out and figure it. You wouldn' just go on to the next thing.

And that's what could happen if there's not enough guidance for doctors to make sure testing is done first, and then also to titrate it up slowly enough so that you don't see these negative side effects.

So you kind of opened up the door to what kind lab testing are you looking for that other than this one, are there any other lab tests that would use that may portend autism?

There's a lot just because so much can be involved. Like there's, there is a case study in the research showing how mold that colonized in a child's gut, once that was addressed, the autism diagnosis was lost.

It took a few years, right. Or it took, a, few to isolate what the problem was and then to get the right intervention.

And then for long enough, but it's hard for there to be just like one or two tests.

It really comes from the parents understanding what is my child's main issue, working with a doctor on that, and then matching the tests that way. So it's really gonna be a collaboration.

But the answers are there because the latest research in 2023 shows that 37% of kids with autism lose their autism diagnosis. And autism has been termed now in the literature as non-pervasive autism.

Outstanding. So you didn't buy it forever. Nope. It's not true. And that number is increasing. When I first started with my daughter, it was about 10%. And it called an optimal outcome.

Now, a decade later, that numbers 37% can lose their autism diagnosis, and there's a new term, non-pervasive autism. Now, with no intention of blame shared given, and 99% of the microbiome we get, we got from our mom, would it behoove practitioners to talk to women who are in, you know, childbearing years to take a leaky gut test, to a microbiom test and address their microbiomes before getting pregnant?

There definitely is a lot of health optimization, I would say, that a mom could do. But it's important to tread lightly on that because no mom wants their child to have to go through extra challenges and all of these health issues.

So it is definitely important. Right. Just relating back to the FRACT test, It would be important for moms or anyone who's going to consider getting pregnant to do a frat test so they understand if they're carrying the antibody.

And most doctors recommend women before getting pregnancy taking some leukovirin as well. So that's something to talk about with their healthcare provider.

As we get towards the finish line, how do you see AI transforming the way families access and apply autism research? It's difficult because AI still hallucinates and leads people down the wrong path.

So I think AI can certainly be used to understand certain health aspects, but I'd think it would have to have its own data set and be really, really meticulous about it.

Just because applying the large language models and trying to extract certain guidance and generalities about autism, I think it'll miss a lot of what is actually really important.

So patients come in, parents, and they're overwhelmed with an autism diagnosis. Give them a couple of quick, easy steps to ease their pain. The first one really is that mindset.

I think a lot of parents go through guilt and grieving. I know I did, I went through grieving, and I cried when my daughter was diagnosed, even though it wasn't a surprise, because she was profoundly autistic at that time.

And definitely depressed, not happy at all whatsoever with the situation and where I was told her future could only go. Um, so really working on that, that mindset, which is hard, right?

Mindset, AI, and future outlook

Because maybe your child's not sleeping and then how do you remain positive or at least neutral when you can't get good sleep? And then you have work and you're being constantly called out of work.

So it can really snowball. That's why really starting with the parent and saying, all right, we'll figure this out. Right. And they could start to reflect on all the other hard things they've done in their life.

done this, I've done that, done, that I'll be able to figure it out. Once you get in that mindset, the right answers will come to you. Whereas if you're panicked, and you just like, Oh, just going to try anything.

I'm just gonna try Anything. That's when there's no strategy, you end up getting exhausted. And you lose hope,

because it seems like nothing is working.

But you are just in panic mode. So really that first step is to get out of that panic mood so that you can see clearly and get the right people on your team and find the information and have the energy to actually enjoy your child.

I mean, that's the whole aspect too. So it's mindset. It's just flicking that switch, if you will, to be more positive. Step one. Well, just to get out of that panic and desperation mode.

Because the only solutions you'll find when you're in panic or desperation is more panic in desperation. So you've got to have that clear mind so you can really think about strategy and say, what is going to the most important thing to do?

Let me focus on that. Let take one step at a time. That's what will help parents really move and transition out. So to revert to something you said before, you've said there's been this 10-year span with your daughter.

I'm going to give you a crystal ball. And in that crystal bowl, I want you to look down and see today's date about five years forward. What do you see Alzheimer's becoming, the research, science, and the protocols?

In five I would like to see the autism diagnosis rate decreasing. Um, and it has yet to do that. It has only increased since, since it's been being tracked.

There's some calculations saying that one in two children will have autism if nothing is done. Right. And so I hope that people start to understand the science and start to understand that things can be done if you really look at autism from a health standpoint to get started, to really help the child want to learn.

Because I haven't yet to work with a child who didn't wanna learn, they just might've had headaches and stomach aches and all of these issues that made learning so difficult and really expressing the learning.

So I would say in five years, I will love to see the conversation of what it truly means to be healthy, to have been so common that it really impacts the autism diagnosis rate.

I feel better about it because it's in your hands. Founder of Navigating Autism, and I'm not using my New York accent. It's spelled A-W-E-R. And you got that because you are a native New Yorker.

I love it, I loved it. Dr. Teresa Lyons, thank you so much. This has been great. I appreciate it we need round two. Thank you very much, definitely.