Autism and Lab Testing: Where Do I Start? Transcript

(Transcripts are generated by AI and may contain errors)

Podcast Introduction and Autism Episode Overview

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

From personalized insights to practical tools, we bring you whole family wellness that starts at the root. Welcome to the Get to the Root podcast. My name is Dr.

Paula Krebsdott and I'm your host. This is our fourth episode regarding autism. There's so many labs, so many voices, so many people speaking in to get this test done, get that test done.

So today, I'm going to break down the hope for healing, get to the root approach. We use precision genetics as a guideline. And based on those results, that guides us into some labs that we draw.

So when you hear all the different voices talking about labs, you hear about organic acids, the gut, provoked urine heavy metal testing, frat testing, folate receptor antibody testing, imaging, those kind of things.

I'd love to thank Vagran, they're our sponsor, and they've allowed us to create this proprietary genetic panel called the Wellness Blueprint. Now, this is not genetics where you're looking for diseases, but it's a little cheek swap.

And you can do this on very small children.

Using the Wellness Blueprint to Guide Testing

You can do it on adults. So it looks like this. It's a little mascara wand. And you basically paint circles on the inside of the cheeks. Another great way to collect the DNA is to lift up the upper lip.

And on either side of the little piece of tissue called the phrenum, you can get some good DNA there. You basically just need to not eat or drink for about 30 minutes before you collect the test.

Now, this test guides us into other labs that you may want, but I did want to go through some of the basics for you that you can ask and be proactive as a parent for your medical provider.

So, when we look at autism, it's pretty much medical standard of care to do what's called fragile X testing. So, this can be done in LabCorp request and also something called the chromosomal microarray.

that will show deletions or additions in the chromosomes. And if something comes up abnormal, then whoever ordered this test for you, be it a pediatric neurologist, a developmental pediatrician, but these days there are clinical psychologists, non-prescribers, non-ordering providers that are making the diagnosis.

So You can take some action into your own hands as a parent and ask for that. Now, another very simple lab to ask for is a pediatric lipid panel, and it doesn't have to be fasting.

If you ask cardiologists, they will tell you that the cholesterol and the proteins and fat associated with cholesterol Taglycerides changes by about 15% during the course of a day with or without food.

It's very common for individuals that are not neurotypical, but especially being autistic, to have a low total cholesterol.

Core Medical Labs for Autism Evaluation

I can't tell you how many of our patients have a cholesterol that's less than 120. And see, that is the raw material that our adrenal gland uses to make hormones and various stress response type mediators.

So cortisol, aldosterone, these kind of things. So Fragile X, chromosomal microarray, pediatric lipid panel. And then the next one is homocysteine. If the homocysteine is less than eight, but many times in children with autism, it will be four or less.

There's not really much to raise it, but homocysteine goes on to be broken down into glutathione. And if you don't make enough of it, then you need to give yourself glutathione.

Now, if it's elevated, that can be lowered to around 8 with the addition of vitamin B12 and vitamin B9. That's a whole different discussion. Using methylcobalamin, hydroxocobalamin, those are B12s, and then methylfolate, which is vitamin B.

Now, typically, you also want to obtain a complete blood count with a differential. a comprehensive metabolic panel, and a urinalysis just to look for any abnormalities.

Now, for example, if the liver enzymes are very, very elevated or the total bilirubin is elevated, it might be a clue to other detoxification or liver issues.

You're going to want an iron and a ferritin. Ferritin is a storage protein for iron, and ferritin will go down, down, down. But you know, if you're anemic and you can't carry oxygen, well, you're going to be tired, and that's like low-hanging fruit that you can fix.

I would get a B12 and a folate. Now that can be ordered through LabCorp request also. All of these can, that I'm mentioning, other than the Wellness Blueprint.

We also offer a slightly different panel called the Newborn Panel, but the Wellness Blueprint gives us everything we need to move forward. When you measure the B12 and the folate, that's what's in the blood.

not necessarily what's in the cell. So the medical provider that you partner with will also look at the size of the red blood cells called the mean corpuscular volume and put the two together to figure out what's going on if you're not delivering enough B12 into the cells.

And the Wellness Blueprint also tells you, do you have enough receptors for B12 or B9, those kind of things. Vitamin D25 hydroxy. You really want that to be 80 to 100, not 30 or less.

We've had so many children that have had vitamin Ds that are in the single digits, and that can cause pathologic fractures, essentially rickets. a urinalysis with a reflex to culture.

You want to make sure that you're not spilling blood, you're not spilling ketones and proteins and making crystals. You want to look at general hydration.

Now, We want zinc and copper measured in the plasma for both, and seruloplasm. Seruloplasm is a storage protein for copper, but you definitely want enough of it.

And zinc and copper play such an important part in the balance of neurotransmitters for children with autism. Now, another fantastic thing to get is an essential fatty acid panel.

Now, when we talk about a thyroid panel, these are the components of the thyroid panel that we would want. A TSH, a 3T4, free T3, reverse T3, thyroid peroxidase antibodies, and thyroglobulin antibodies.

Thyroid, Celiac, and Biotoxin Testing

This would be available in the transcript of the note, but those things, not your typical thyroid panel that they order,

many times they don't get a reverse T3, nor do they get the thyroglobulin antibodies and the thyroid peroxidase antibodies.

Now, the interesting thing, the blueprint will tell us if you have some genes that are going to make you vulnerable to develop celiac disease. But there are also some markers on there that aren't present.

So based upon what the blueprint shows, a comprehensive celiac panel or the celiac HLA human leukocyte antigen test, one or the other. And it's, again, start with the blueprint because it really informs us of what we need to get.

Now, if you've had a celiac panel already, that means that you can go on to develop celiac if you have the genetic vulnerability. But at a minimum, we like looking at anti-gliadin IgA and anti-gliadin IgG antibodies.

Let's talk about biological toxin illness. There's four labs on little children that help us determine if there's chance of having biological toxin illness.

Some people say mold illness, but inside a water damage building, it's not just mold, it can be bacteria. And there's different types of bacteria too.

So, we're looking at a hormone called melanocyte stimulating hormone. Quest no longer offers this test, so it needs to be ordered through LabCorp. Another test through LabCorp is called Transforming Growth Factor Beta-1.

I'd like to thank Fagran Genomics for sponsoring our podcast. Without knowing what your precision genetics are, you don't have a roadmap. So please log on to our website, schedule a welcome call, and see what the Wellness Blueprint can do for you.

That's the premier and proprietary genetic panel that Fagran has allowed us to create. and another test is called metallomatrix protein 9. Then there's a genetic vulnerability, and it's called HLA, DRB1, 3, 4, 5, and DQB1.

And when the show comes out, this episode, I'd love to be able to put these into the chat or to have that spelled out HLA DRB1345 and DQB1. So, putting all these labs together really, really help us.

Now, if we're talking about the gut, there's some lab core labs that are very helpful. You can get a stool culture with white cells, and that will tell if you have salmonella, shigella, campylobacter, one strain of E.

coli that tends to be invasive, and any white cells in the stool. The other test is called the GI-Profile PCR, and that's available through LabCorp. And that looks at common bacterial pathogens or disease-causing organisms in addition to some common viruses and some common parasites, amoebas, that kind of a thing.

Then you can request a stool, ova, and parasites. And those are, like I said, all done through LabCorp. Now, there are different types of functional stool studies.

The one that we really like to do is either the GI map by Diagnostic Solutions or potentially the tiny gut health test, and that's for children three or less.

But the GI map for above three is one that we prefer. Then as far as organic acids go, we really don't care for the ones through or LabCorp, which a lot of pediatric neurologists will order, but we love to use the Genova metabolomics test.

That will give you a really good idea of what is going on with the organic acids and what comes before that, like what things you're missing, antioxidants, glutathione, B vitamins, certain other vitamins, and it will also tell you about neurotransmitters.

Then there's also another fantastic provoked urine heavy metal test done by Genova. And that requires the ingestion of an agent that pulls heavy metals from the rest of the body and you pee into this container for six hours.

Gut Health, Organic Acids, and Heavy Metals

But you would need a provider for that. So stepping back and talking about labs, this is just meant for you as a parent trying to uncover all kinds of things that could be affecting your child.

At some point on our website, we will be offering some of these for you to pay cash for or to use via a health sharing group, that kind of a thing. But you would need to partner with one of our practitioners to have them ordered.

But if you're there anywhere in the world, Taking notes, this is a great place to begin. You can do these on your own at home. So these are labs to look at to order.

So again, the proprietary hope for healing wellness blueprint or the newborn panel, the wellness blueprint is what we prefer. Then just as a recap, Fragile X or and a chromosomal microarray.

pediatric non-fasting lipid panel because you really want that cholesterol to be more than 120 to 130 because it's the raw material for the adrenal gland, homocysteine, a CBC with a differential, comprehensive metabolic panel, iron and ferritin, B12, folate, vitamin D, 25 hydroxy, a urinalysis with reflex to culture, zinc and copper obtained from the plasma or serum, and seruloplasmin, and then an essential fatty acid profile because you do want an excellent ratio of omega-3s.

And then as far as the thyroid panel goes, you want a TSH, free T4, free T3, reverse T3, thyroid peroxidase antibodies, thyroglobulin antibodies, and a celiac-comprehensive panel or just anti-gliadin antibodies, IgG and IgA.

Then you're going to want to consider for biotoxin illness the genetic test by LabCorp called HLA-DRB1-3-4-5-DQB1, melanocyte stimulating hormone, transforming growth factor beta 1, and MMP9.

If you would like a list of these labs, reach out to Hope at GetToTheRoot.com, the number two, and we'll be happy to send you this list. Now, the other specialty tests, and we start with the Blueprint first because if you lower inflammation, then all of your symptoms may decrease everywhere and not necessarily everyone needs heavy metal testing.

And so the diagnostic solutions, GI-NAP, the Genova Metabolomics Organic Acids, and the Genova urine-provoked heavy metal test, but you need to have a medical practitioner give you the provocation agent.

So this is a comprehensive summary of the various lab tests that we recommend as a baseline or that we look at specifically. Now, again, what I love is the guidance that I receive from the patient history, the physical examination, and maybe you as a parent have already layered in some of those things that support your child.

This is a great place to start, and many practitioners order everything all at once.

Recap and Closing Remarks

But how can you follow all of those protocols all the time, all at the same time? It's almost impossible. So if you can develop an intelligent sequence to layer these in, that's what we prefer.

Thank you so much for joining us today. I'd like to thank our sponsor, Lagrange Genomics, and Bird, the proprietary wellness blueprint that they've allowed us to create, and that gives us profound guidance when we partner with you.

If you like the podcast, be sure to leave us a five-star review and share. Share this with your friends and family. Thank you so much. And once again, my name is Dr.

Paula Krepstein, your host, and I thank you so much for joining us. Thanks for joining us at Get To The Root with Hope For Healing. If this episode helped you, follow and share it with someone who needs it and leave a review.

It helps others find us too. For a free consultation, visit our website at GetToTheRoot.com with a number two and schedule a welcome call. We'll see you soon.