Brain Development in the Womb: Critical windows that shape your child’s future Transcript

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Introduction to prevention and planning

Hi everybody, it's Dr. Laura with Connect My Brain. Okay, so glad we are together. You know, this is my time to really share information and that is definitely something I enjoy doing.

Sometimes I don't necessarily feel like I always have the best news to tell everybody but if we can at least know that there's something that can always be done about an issue if we're willing to roll up our sleeves and do the work.

And one of the things when you're listening to anybody that works on a more alternative health platform, you have to realize what we are trying to do is actually heal the body.

We're also trying to prevent. That's a fundamental piece, especially being a chiropractor is we were trained in this element of prevention. What can we do so that we don't have a problem?

And that's always been one of my big conversations is, we need to plan to have baby. Now, that might be great if you're out there listening and you are thinking about having a baby, but we also have an audience that has a lot of issues with children that are already here or, you know, they've been trying lots of things.

So we're going to address both. But always if, if can plan something, wouldn't the outcome always be better? And sometimes I think we plan our trips more than we planned to have a baby.

If you are listening and you're contemplating having a babies, you need about two years of preparation. Two years to find out first of all what's in your bucket, what your state of health, And what could you improve before that baby is conceived?

That's a very big part. And if you are of the audience that already has your baby here or your child and they're struggling, you'll be able to go back and think about some red flags that maybe you even thought were redflags while you were pregnant.

So tonight, and yes, it's dark here, so it might look kind of dark, but tonight what I'm gonna talk about is this idea of neuroimmune and why it is so important for us to pay attention to.

And there's a lot of information that is now available that's really helping us understand why we are facing such issues with our children when it's really like one in three to five kids cannot learn as expected or are not developing as expect it.

You know, the wave of autism started in the eighties and those young people now are in their thirties.

Neuroimmune development and pregnancy

And so there was a lot of information over decades that has been studied. But we have this new label now. Children that were born after March 2020 are actually called pandemic babies, meaning that this group of children were impacted mainly from the health of the mother.

So there was a study that looked at 250 kids, babies that were born, two mothers that are positive for COVID-19. The babies were not infected. However, the inflammation in the could have led to neonatal effects and a spectrum of adverse neurobehavioral outcomes.

Placenta inflammation and infection affect fetal, neuroimmune, and immune development. So this is one study that was done looking at the effect of mom having a virus.

And that's all it is. It's a And, but what happened was when mom is pregnant with that baby, that is the prime time when that babies brain is developing.

And anything that goes on, especially during pregnancy can affect the neuronal circuits of the brain. And if you were to, maybe what I'll do too is just even share a screen of some different neuronal circuits so that you can understand what we're talking about when we talk about neural circuits.

So I'm going to bring up a picture. Now, when a baby is growing inside of mom's womb, that is a wide open event for that brain coming together. And what is the first thing that we are asked when we get into our appointments and they ask us what?

if we feel the baby moving. And that part means that the movement pieces are really important in wiring up the brain. We want to pay attention to this because the moving piece is the big piece that allows us to understand what is going on for that baby.

And if that maybe is not meeting the milestones, it is so important for us know that that is a huge red flag. Now I wanna connect some dots first of all, on many of our podcasts we've talked about Primitive reflexes.

Those primitive reflex are firing during pregnancy. And so let's just talk about Morrow and we'll talk AT&R, asymmetrical tonic neck reflex. Moreau, here's this baby, all inflection during pregnancy and when there's any sudden change in the environment.

And that means any of the senses pulling in information babies can hear, babies start to track the eyes, baby's are having their own hands coming to their face.

Any sudden changes would cause the baby to startle. And that startle, when you look at it, has three movements. You go from flexion to extension back to flexión.

So that is going to create movement in the body and mom can perceive it. Asymmetrical tonic neck reflex. This is the one that's very prominent. Baby's all up in flexiión, baby turns its head, and that arm and leg on that side go out.

That is the kick that mom feels in the womb. So movement is first thing outside of the special senses starting, the vestibular, But the movement has started.

So in this little diagram, you see different types of blue and red, and you different of configurations.

Brain circuits, reflexes, and developmental windows

Now this is only one picture. And, but what it's representing is how different circuits come together in the brain to create some form of either behavior or communication.

So I'm gonna find another one too. For my podcast audience, what we're looking at It almost looks like trees. Yes, this is one kind of picture that I like so much more.

Let's just look at this one, okay? But this the idea of how we're going to have different hubs in different parts of the brain and then how they're going to reach to one another.

So this module is having this interconnection to this model and this connection is connected to the module and so forth. This is the idea of this circuit Now we all, and for the podcast audience, what I want you to think in your mind if you're just listening to this, And this one we'll put up on YouTube.

We're trying to post more to YouTube again. But what i'm trying and you would have like a wooden round circle

with a bunch of holes in it. And you put the sticks into the holes and then you connect it to something else and sticks would come out of that and connect to it something.

Before you know it, you had some kind of abstract configuration. That's what I want you to think about when we're talking about circuits. And there are circuits for so many things.

There are circuit for executive function, there're circuits when your brain is relaxing, There're circuit when we want to process different pieces of information.

Now the really cool part I think of understanding circuits is that while we all have the same stuff, it is going to come together based on our experience.

And we all live a little bit differently, so that environment, both what the baby is in and internally, external and internal influence how those modules are going to interconnect with the other modules.

Just like if you were looking at your tiddlywinks and you went, okay, I've got this yellow wheel and I want it to communicate to this blue wheel, but I wanted to have a twist or a zigzag.

Kind of think about it from that abstract component, taking your idea, your big picture, and configuring how it's going to come together. That big idea or how you're trying to configure it represents your experience.

And so when women are pregnant, rather it is a planned pregnancy or not, we are going into those pregnancies with a bucket and dad contributed to it as well.

And when these things come together, this is what is the beginning of how that brain is actually going to develop. And so we're gonna call that a developmental window.

We have lots of developmental windows. we have them while we are pregnant and we had them after the baby gets here and that baby goes through all these different developmental Windows over time.

So pregnancy is a developmental window. That is when the brain is actually growing. It's actually being formed. And so what we bring into that equation is really important to understand how it can influence the development of the baby.

And then in the past, we've talked about the gut is going to mature over the first couple of years. So that's a developmental window. The immune system is the 1st three years, that is another developmental windows.

We have lots of developmental Windows and whatever is Going on, during the time of that window being developed is going to influence the outcome. So that's how we get the name neuroimmune.

Whatever the immune system is doing, it is gonna influence neurology. Neurology is function of the whole person. everything that they're meant to do. And so when we look at some of these labels like autism, attention deficit, specific learning disorders, and even schizophrenia, I know that's a big scary word, but there's research now that really kind of looking at this timeline, the longer these immune insults go on, there could be some very long-term detrimental impact on the function of the brain.

And some of the characteristics that we see with any kind of neurodevelopmental delay, they're cognitive, like is the baby meeting the milestone? What about social interaction?

Well, that is directly related to what we call a mirror neuron. And a mirron neuron is ability of your baby to keep their eyes right on you and begin to mimic what they see.

And that certainly continues. So if I were demonstrating to my daughter how to do a twirl, I would show her and she would follow me, and that's a mirror neuron.

But so is facial expression. Think about our baby's breastfeeding, It is about a six inch difference between baby's face and mommy's phase. And the baby is picking up all different kinds of features on mom's space.

I kind of see in my mind's eye, just like this little computer going and bringing all this information in. Same thing with auditory. What is it that you hear?

And remember that is a developmental window. When you come into this world, You hear low frequency sound, but you acquire middle and high over the first three years of life.

Another developmental window that will highly influence communication.

Research links between maternal infection and child outcomes

And by seven weeks, that baby should be cooing, and that sound is a vowel sound. See, a lot of times I hear parents come, When a child is three, four, five, and their language is so delayed, that language really should be starting way back, seven weeks, making cooing sounds.

And then they're gonna go into all the other sounds that become the consonants of how we say ma and da. So we got a vowel and a consonant together. But the motor control, that one's got the big star in the research.

Can I pick up my head like I'm supposed to? Or do I have head lag? Am I unable to hold my hand up? Are they adapting? These pieces are so important in understanding is my child going in right direction.

So I want to share some of the research information with you. So back in the 1960s, there was an outbreak of rubella, and therefore they put together this connection between congenital ruella and autism spectrum disorder and schizophrenia.

In the 2000s, there were studies that showed a three to seven increase in schizophrenia babies of mothers who experience respiratory infections in the second trimester.

So that's what I mean by looking at the blueprint. We have to look at blueprint to understand why a baby is in place or a toddler is the place, or child is a place where they are that they're not developing as expected.

In 1984 to 2007, there was a Swedish study that looked at a connection between maternal hospitalization and a heightened risk of autism spectrum disorder.

Now, there are similar findings for other types of infection, rather it be viral or bacterial or even parasitic or yeast. It's about the immune response and when we see that there is a heightened state of immune, that is going to have a potential defect on the child that's going to demonstrate itself as a neurodevelopmental problem.

That's really what we see. We see all kinds of issues with children that are having different types of problems. When you get into the blueprint, which is the history the history of mom, the story of dad, what is in the bucket.

Now, let me even go a little deeper. When we're talking about all these different types of viral bacterial problems, yes, if it happens during pregnancy, red flag.

But here's the other problem. The other is also that you've experienced it somewhere in your lifetime. And the big culprits are things like pneumonia, hand, foot, mouth, Epstein-Barr, fifths disease, herpes.

And herpies has a gazillion categories to it. Then it's also what's going on in the gut. Most people don't really know what is happening in their bellies.

And I think one of the telltale signs that can help us a lot is what it is that you eat. Are you feeding an environment? Sometimes people come to me and they go, but I eat a really good diet.

Okay, what's in that diet? Is it foods, even though it might be organic and maybe it's cleaner, But what is it? is lots of carbohydrates, which are going to break down to sugar?

Or is it, you know, lean meats and fish and vegetables, salads, things that, are whole food, or are we eating processed food?

Gut health, diet, and biofilms

And process, some of these things even try to come across as being healthy. And, you know, one of the things that I think is really, really hard is that so many people, they're just so busy, and when they are busy they have a tendency to grab more foods.

and you may think that the foods that you're eating are clean, but are they really? You know, when we think about a restaurant, you know and actually it's been kind of cool because I've actually now been to two restaurants that gave filtered water.

I was amazed. So I think we have the potential to becoming more intelligent about this, but I don't know that we really realize the state of health that might be in and the impact that it's having on our children.

Let me share another screen with you. And hopefully what I'm trying to create is a understanding why there might be a problem. So if the diet is, and maybe we're talking about our child here.

So let's not think about ourselves right at this moment going into pregnancy. And yes, clean up the die by all means. But maybe this is the child. It's scary when a kid doesn't eat.

I totally understand. In the big picture, children are not going to starve themselves. And if you have a picky eater that is just like refusing food, we just got done doing this here this week at the office, make some really great bone broth and put in some vegetables.

All the minerals are gonna be pulling out of that. And even if had to syringe a few drops into that child's mouth, you're getting some nutrition. If these kids are not getting food, they're not going to have any kind of fuel or power to do anything.

And so that's at least one thing that you can do in a really sticky situation where your child isn't eating. But I'm always asking the question, why? So if your has a tendency to only eat certain foods and some of the big culprits are things like, you know, something that's got a lot of flavor on top of it, but it's really sugar.

I was talking to a family and the child was really into eating sushi and I have a feeling, even though sushi is great, I had a feel it's not the one that's just like brown rice, avocado, And that's it.

I have a feeling it's the one with all the sauces on top, which really that sugar. Okay. And, you know, I am, still amazed. I have to look at every package that I buy to make sure that there's no sugar in it, You know every now and then I want to have gluten-free hamburger buns.

and I was at the store a couple weeks ago And, you know, the way they label everything, oh, it's gluten-free, its clean, It's this. But if you go and you look at the ingredients, cane sugar, and that's so that you'll eat it.

And most restaurants put a lot of sugar in their foods, okay? It also pastas and bread and chicken nuggets and mac and cheese and pizza. and even french fries.

French fries have all kinds of excitotoxins on them and that's why kids go after them, especially if you're getting it at a fast food restaurant. It can also be the child that eats nothing but fruit.

Fruit is sugar. So when we're in that state, what you are looking at, if your watching the video obviously, and then I'll explain it for the podcast audience, This is called a biofilm.

And lots of times, kids have very sick bellies. That's one of the reasons why I like doing food sensitivity testing. Because when you see all the things that the child is reacting to, it's not that all those foods are unhealthy.

It's just that their gut is unhealthy, so they're reacting everything. but that helps you understand there is a state of ill health going on. And the first thing that has a tendency to happen is what we call dysbiosis and the bacteria just gets all wonky.

Maybe then the bacterias in the wrong place and it's up in small intestine instead of the large intestine. The longer that this goes on, We have a tendency to create an ecosystem inside of the gut.

And so this picture, picture one is called the attachment. This is where all those bad guys, yeast, parasites, prescription medications, viruses, bacteria, they all come together.

they begin to grow and they create their own ecosystem. Now what makes them grow, second stage, so now we've got the attachment which looks like this little blob on a board and then it grows and everything inside of it multiplies.

Well what make it grow is what you eat. And this is also starting to drive the person to only eat breads, pasta, chicken nuggets, mac and cheese, pizza.

They're literally feeding that environment. Then the third phase is the detachment phase. Now what happens then is this thing opens up and it dumps into the body and then it starts all over again.

So we got three phases of biofilms and this becomes a huge culprit now inside of the baby. If we started at a deficit with mom and dad coming to the table, with a bucket full of past viruses and bacteria and, you know, gut dishealth and maybe some parasites and yeast.

And now we're transferring our information into the baby. It's not only what's happening to the brain growth of the baby, but you're now setting that baby's immune system up for problems from the beginning.

And what you will see at this time of detachment is that child's behavior will Become very noticeable and you might say to yourself, you know, they were doing so well for a few weeks and then they go back into whatever the things they got back in to so it creates cyclic like behavior.

And in order to change this, this is gonna sound terrible, but you have to starve the biofilm. Now that does, it sounds terrible. It's not about starving your child, But it's about you to have change what is going into the mouth of the child.

And this where it gets really tough for parents.

Family protocols, remote support, and closing remarks

Because they may have all the enthusiasm to clean out the pantry and begin to do all the good food, but the child will really give you some pushback and the children will revolt and they'll make you feel like they're not going to eat and it becomes really hard.

And that's why here at Connect My Brain, what we do is we want to find out the state of health of the child as quick as possible so that we can begin a process while they're in the program that, we are cleaning out, the gut with a very safe, mild protocol that I have been doing now for decades and get really good results.

And it's not something that really tips anybody's bucket. It doesn't change any kind of elimination other than making a person healthier, and it doesn' cause any type of tummy disruption.

And that's always what parents are concerned about, rightfully so. But if we start to get the gut going in a more positive direction, what happens for the child is the children begins to go towards other foods with a little bit more ease.

They're willing to try more. And we want to guide you in that direction as well. Today I have to say, I think it is much easier than it was years ago because we can take recipes and just then put how to swap out this for something else.

And recipes come up all the time. So there is a lot more flexibility today than there used to be. Now, of course, the best option is that we start this out right before it ever becomes a problem.

And that's why I started this podcast with, it is so important to plan. Because during that time of planning, you would be learning about yourself. You would changing your diet.

you Would already be Learning how to feed your baby once your Baby gets here. and your state of health would improve so your breast milk would be healthier, your body would healthier.

You would even have more endurance that's going to help you go through pregnancy as well as birth in a much more positive and happy direction. Now, you're the family that your kids are already here, so what do you do?

You know, I feel like the best option Is for families that come to connect my brain and we get your child on a protocol that the whole family does the protocol you will feel better.

It's a very easy protocol. We actually recommend that you do it twice a year, fall and spring. Our bodies are starting to go through change right now in preparation for winter.

So when we go though change, remember what we started with? The Moro reflex, any sudden change? What is your autonomic nervous system doing? But if you were to do the protocol with your child, first of all, A family that does this together, everybody gets really excited.

Now maybe you don't think that it's possible for you to come to Connect My Brain, but it is. We have families that travel in all the time to connect my brain.

We also do lots of different remote options. In fact, I've been talking about this, you know about the Jumpstart program, but we've actually started our parent membership.

You can go over to connectmybrain.com and go to the CMB store, Connect My Brain store. CMD. And in there, you will see the list of remote services that we have available.

And what we do with the parent membership is we deeper dives, we private podcasts, and we're always giving you more information that you can use wherever you are.

We truly believe that our community is the world. And that is why I got so excited when I was able to really launch this podcast. I'm so grateful to my podcast manager, Marcy Page, because if I hadn't found her, we just wouldn't look as good as we look on our podcast.

So I'm very grateful to having her because we have a very polished platform and we can get this information out so people can learn and people then start making some changes that are going to change the outcome.

Now this particular topic has more layers to it. So this is only going to be the first and are probably maybe one more or maybe two more. But I'll start off the next one with, okay, we're going continue to connect the dots.

What is going on in the brain when these baby's brains are being wired up? And why are we seeing what we are seeing? And our best way of changing an outcome is changing what we do.

Okay, I'm going to wrap it up for this podcast. Thanks so much for tuning in. Be sure if you're listening to the podcast, give me a review. I am trying to get this information out there and there's just so many of those algorithms that you have to try and meet so that the information has a longer arm and can reach more people because that's really my passion is to help my community, the world.

Thanks for tuning in. Be blessed.