Why Stress, Phones, and Skipping Milestones Are Changing Our Children's Brains Transcript

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Introduction to neuroimmune development

Hey everybody, it's Dr. Laura with Connect My Brain. All right, so glad that you are tuning in again today. And we are going to continue our discussion as it relates to this idea of neuroimmune and how this is impacting the development of our children.

Today it is like one in three kids that is just not going the way that they should. And we all need to look at this. Unfortunately, I think there's a camp that goes, oh, you know, it's just kids and all kids are like this, and I that's unfortunate because all kid don't need be like.

All kids don' be stressed. all should be thriving in school. should like school, And that' So we have to kind of walk backwards and see where are we figuring things out and what do we do about things long-term so that we can make a difference.

And this idea of neuroimmune, neuro is the word neurology, immune is immune system. So what they're putting together, that they can play upon each other.

And everything has an open window of development. Every part of your body turns over cells. There's always influencers on how things are gonna turn out.

We talked about that since the wave of autism from the 80s, the research, of course over time, has been leading to greater and greater information. And I do think that since the pandemic, maybe because we've got this other information that's been collected for so long, Maybe we're able to start looking at things a little faster.

I remember talking to one of my medical doctor friends who said, unfortunately what happens in medicine is things are typically about 15 years behind.

And I think that has absolutely played a part on why we see so many things go on, especially with kids and the typical approaches that are used in order to just try to regulate them.

Then I also wanna just kind of put in as a sidebar, there's many adults that also go through lots of things. And most of the time when I talk to them, They are, they're going to trace it back.

I've been feeling this way ever since I was in middle school or as far back as I can remember. And I mentioned one time, I met this lovely elderly woman who told me she had been on about 250 antibiotics in the course of like a 10 year period.

All of these things, are going to influence an outcome. They may address something right now, but is there an impact, especially on a baby or a young child who has all these open windows of development that's completely changing how their brain is going form?

This is a big deal when you really think about it. Where we left off on the previous podcast was we started to talk about the maternal immune activating process as it results from systemic inflammation.

I spoke to an adult woman the other day who was telling me what life had been like over the last decade. and that there were chronic episodes of stomach issues.

But when they did all this lab work, they couldn't find anything. And the only thing that they told her was you have inflammation.

Inflammation, infections, and maternal health

That to me is a very important word and I want to expand on it because inflammation is the beginning of any disease process that somebody may have diagnosed upon them a decade or a become diabetic overnight.

We don't just have endocrine issues overnight, these are systems that do everything they can, all of your systems, not just those, but all your system try very hard to keep you going.

and try to adapt, and even though adaptation can sometimes then come at a great cost. And that's the same thing for children. Children, they're in these open windows of development.

They're having their world, both outside and in, influencing how they are going to come online. The difference between the child and the adult Now, if it's an adult onset, and you did develop and mature as expected, you have your foundation.

But with kids, that this is happening while the brain is forming, through the birth process, while they gut's maturing, the immune system is matering, their circuits are coming online, that's becoming the role model in which they're going to function.

So we want to look at there's things we kind of highlighted in the beginning of this little podcast part. I think that one was two ago, was talking about what's in our bucket and realizing that we've all been through different types of viral infections, bacterial infections.

Some more serious than others. We talked about Epstein-Barr, we talked pneumonia, the family of the herpes virus, strep, food sensitivities, and I also want to get into this idea of stress again today as it relates to what's going to happen to our children.

But what's in your bucket, not necessarily that it has to be in full bloom while you're pregnant. But if you've been walking around with any kind of high viral loads, high bacterial loads you can be that state and not have an acute infection.

your immune function, which is not only in the gut, but it's also regulated in brain and each side of the brain has a different role. So these types of low inflammatory markers can absolutely play a part in your life, your health, and your function.

And then we go and we conceive a baby. You can only give your baby what you got. So maternal viral bacterial infections, asthma and allergies, walking around, you know, that's one of the things that I find very interesting is allergies.

And one other things, especially if you go through allergies let's talk first about more airborne or seasonal type of allergies one. One of things is that should automatically help you understand about your body If you've been living in that environment, why are you not adapting?

Why do some people get impacted, like let's say by pollen? and other people don't. So some people can adapt and others cannot. And this is what I think is really important that we focus on the whys of things and not just, okay, I'm going to go get some allergy shots so that I can begin to make my system a little bit more insensitive to what is out there.

What about your immune system? How is it functioning? And then we mentioned in the first podcast of this little part that we are doing on neuroimmune that women that had had any type of asthma or allergic reaction or even some type infection, especially in that second trimester of pregnancy, they found a greater correlation to potential developmental delays in their children.

So we've already seen the research on that one. Any type of autoimmune condition. There's definitely some very serious ones like lupus. That's an autoimmune condition.

But anything, rheumatoid arthritis is a common one that we understand. But there can be a lot of other ones, like especially you need to connect dots going back, especially to the viral and the bacterial load, because eventually if the body just keeps reproducing the virus, that's headed towards an autoimmune storm.

and these kids that are running around having strep all the time or impacted by strepin their environment, that is also playing a part and potentially causing autoimmune storms in them.

And remember when we started this conversation, a couple of podcasts ago, the research is saying if this is the way this child has begun, And it continues, and it continuous, up until those teenage years.

They have now connected a dot back to schizophrenia because that brain has been chronically inflamed. Remember what I said, inflammation is the first step in our body's reaction to anything.

And therefore, we need to live these lifestyles that we're going to bring the inflammatory storm down. And it's completely controllable. But I think sometimes what ends up happening is that it feels like such an enormous amount of work.

And I get it. It is a lot of.

Stress, brain patterns, and parental modeling

There's no question about it, but when we understand the long-term outcome of this, what's the for an adult under chronic inflammation is early degenerative changes in your brain.

So it's not just a mood disorder hitting children that have had chronic infections throughout their life, but if you, even if developed correctly, if live in a state of inflammation, and inflammation always brought around mechanically, chemically and thought.

All three of those matter in the way that we approach our health. So that's that kind of like psychological or I like to think of it more as mind health, what is your mind, health?

Do you see yourself always doing something wrong? Do you see yourself from, I can't do anything right, can get rid of this weight, am a failure no matter what I try?

Are you even not even consciously but subconsciously not realizing how you're dripping words over yourself? Like even if you do it in gesture and laughter and make it sound like you are really just kind of playing a funny, okay?

But if we're sitting there saying about, oh yeah, you know me, I always get it wrong. You might put a little twist of laughter on it, but that does not mean that your brain does understand what you're doing.

And I've done many, many podcasts on neurofeedback. And so if you're interested in neuro feedback, I encourage you to go listen to those. But because it's one of the therapies that we utilize that connect my brain, we want people to understand what you are doing in there.

And when you do neurofeedback, you get to watch something, so your conscious mind is entertained. But your subconscious mind, is picking up filters. And there's filters of vision, and there are filters, of sound.

And what your subconscious mind is looking for is the pattern that when I get my brain in this state, the picture goes bright and you hear something. So obviously the way we see things, how we and what we speak over our life are just as powerful, if not more powerful than neurofeedback.

Do an inventory. How are you looking at the world? How do you look at yourself? how do You see yourself in the World? What is it that you speak over your own life?

I had an incredible conversation with a mother yesterday. I was just incredibly impressed. Her son got a brain map.

We were looking at the outcome of that brainmap.

And the only thing they wanted to really focus on was how can we help our son? And it led to an incredible discussion that really revealed she's been thinking about this for a while.

You don't just come up with this kind of thought process in the moment. But he had a pattern of Too many slow waves, theta, and too many fast waves high beta for a kid.

And that's one of those classic patterns that we see in the brain that really, really makes it difficult for child to pay attention. This child is just nine years old, but he is very involved in sports.

He can ride a bicycle. He does great in school and he has a lot of friends and they've got a very happy home. Ooh, okay. So the pattern of the brain map doesn't really match all the things that he's accomplishing because the typical pattern, of having something on a map suggests that maybe you're struggling with attention.

Maybe you don't turn in your homework. Maybe you lay around and play video games all the time. You don't participate in sports, you're very lethargic.

So in getting into a deeper conversation, the mom literally revealed, it's us, Dr. Hansen. We have created this in our son because we're always on our phone We are always on a schedule.

We're always the fly. There are no down days and there is no family downtime. And first of all, to be that open and realize how much a parent plays a part in shaping their child We do this work.

We are the role model to our children. And I think I'm spending a little bit of time on this because depending upon when you listen to it, but for me, it's November 23rd and we're headed towards a new year.

In my mind, I am already planning What do I wanna see, underline that, what do want to see different in 2025? And I'm already starting the process. She was already the starting process, so number one, put the phone down.

Look around our world, nobody can ever look up anymore. And that would mechanically change how your eyeballs work. We are doing many things to ourself.

If you are a young woman or young man hearing this and you're planning on having a family, take a couple of years and figure out your state of health before you go into the pregnancy.

Plan this. even more so than you would plan a trip to go abroad or making a plan to study a particular degree and anything. Put as much emphasis into the planning of the creation of a life as you do for all other things that matter to you because we know now that what's going on in us is having an impact on the development of children.

It is so prevalent today that lots of young people in their 30s are scared to have children, this to me is remarkable. The other really big issue, and I think I'm really coming out of my little rant here of trying to give you the idea of what goes on when we live in stress.

Your baby's subconscious mind is beginning the third trimester and it is going to form all the way up until about eight, eight and a half. you are the role model.

Now in a healthy pregnancy, we actually are in this non-inflammatory state, and we literally, our immune system acts very, very differently because the baby would typically send a signal for an object, let it go.

So that whole system has to change. But when mom is in an inflammatory state the immune system gets ramped up and this can absolutely have adverse reaction on the developing system.

It is so important that we begin to understand that they have already found this.

Pregnancy, fetal brain development, and anxiety

So triggers maternal stress, maternal nutrition or physiological health, what's going on with any kind of drug exposure, any kinds of inflammation or infection.

They have already found, this is documented, that there is a different size and shape to the gray matter of the baby's brain. in particular the hippocampus and the amygdala.

The hippo campus is in the temporal lobes, which is right where your ears are. We have one on each side. And this area is for long-term memory, novel learning, cognitive flexibility, the willingness.

Remember what I said at the beginning, kids don't even enjoy going to school anymore. It's about the novelty of it and you having the flexibility. Okay, now we're going to do this in math.

Oh, okay. Now we are going do do some reading and we building on ourselves all the time and it's dampening. So it is not all about, you know, a size of something.

You can look at research. and realize here are the big pearls, but you don't have to have every single one of them to some kind of dysfunction going on, and that's what we're trying to educate on.

So I see issues with the hippocampus all the time. Not only is it long-term memory and cognitive flexibility or willing to learn something new, but it's also your personality.

The amygdala is that area of the brain that is trying to make you safe. And so it will say, okay, there's a threat, I'm going to code it. Just for simplicity, it's not this simple, but let's just say it is ABC.

the longer this stays around, the amygdala no longer has to find A, B and C. It might just whack at you over A over B, C and this is happening before the information is ever reaching the frontal lobe and you're getting an opportunity to reason through it.

And this where, you know, I got to tell you, I think that Disney movie Inside Out, the first one I thought was, well, it's really good helping people understand how their brain works.

The second one, The Character of Anxiety. That was such an incredible demonstration of this idea of a brain spiraling out of control. And I'm referring to the scene when she is just going in like a vortex spin, spin spin and joy comes up, plucks her out the whirlwind, but the world wind keeps going.

So the pattern is there. You might be able to stand back and get a different perspective, but the chronicity kept the pattern there. And think about all the kids that have been labeled anxious.

I can't believe how many children are on anxiety medication. If you are going through chronic anxiety, chronic stress, you can even rob cortisol from your baby through the umbilical cord while you're pregnant.

You can also cross through viruses into your baby. And that would be true for any other type of infection. The point is we have a lot of information today.

A lot. and the time is now for us to take a little bit more time in preparation and understanding why it is important to plan our pregnancies. And not only that, maybe you're done having babies, but what is your state of health right now as you continue to be a parent to your child?

What type of role model are you to you child, I have this one young man in mind. When he came here, he needed to trim down. He needed too really work on endurance and tone.

We had definitely some chemistry issues that we had to work. And sometimes this stuff is not easy. Sometimes we have to start it more than once. Because we might get started and then stress builds up and people end up taking a

break and we have to start all over again.

And they were one such family. But I'm so proud of them because the mom and dad really demonstrated determination. and they were looking at themselves and what can we do to reposition ourselves so that we can get the most out of this program because they had already seen tremendous changes in their son.

So they knew the work that we were doing was making a big difference. And if we could just get that over the finish line, then what this would mean for them is that they would not be going back and forth with this for years down the road.

This young man has done so well that he's even taken a personal interest in cooking and he really has a desire to be a chef. And he has been practicing clean cooking.

What is so fun is he invented a fabulous cookie. And I did, I bought some for Thanksgiving and I absolutely paid him because it's work, it is ingredients, and he needs to have the reward of the efforts.

And that's a big thing that we try to teach here at Connect My Brain. We, we, our brain goes towards things. It wants that reward. And so especially through neurofeedback, that's where the brain actually gets that training of what is a reward, but then it is reinforced with everything that the children do.

When I see a kid that stepping out of himself, and now going towards a goal, an idea, and a plan. That's a well-balanced brain. And then I've had times that I have spoken to parents that they're calling me when their kid is 15 and 16 years old and don't ever think that you're ever too old because you are not.

The part that's hard is that the older you get, you have to be able to roll up your sleeves. And I can't help that. The brain, the body, and the systems need a certain number of repetitions in order to change.

We've all heard 21 days to a new habit. Well, guess what? That's great for a toddler. The older you get, you need more.

Motor milestones, stress, and frontal lobe function

Six to eight year olds, it's about nine months. But man, when you to 14, its thousands of repetitions. So that's us. Don't ever give up on something that you're going after.

You've got to realize that need a certain number of repititions in order to make it stick. And lots of times you do come up with a really good idea and you go, okay, I've got this, about a week into it, there's a little bud that starts off in your brain.

But if it is not nurtured and allow the space and time to grow to become part of your circuits, it will shrivel up and go away. So the idea, let's learn from the information that we have.

Remember when we started this, they were already picking up that children that were born to women who had COVID, They didn't even have to have the infection as babies, but they we're already demonstrating verbal, motor, and overall cognitive delay.

That motor piece is huge in understanding why your child needs to do what they're designed to at those certain times, and why anybody would tell a parent that it isn't necessary for your children to crawl.

I would say that's malpractice. Crawling is one of the most important motor milestones, but I don't want to put one over the other. And the timing of when you crawl.

You need to be crawling somewhere around eight months and you need maybe six to seven, somewhere in there, But you to do it for six months. You need the number of repetitions that's necessary to make the brain talk to both sides.

Remember what I said, you come into this world You are dominant right brain. If you don't motor like you're supposed to, it dampens the right, pushes the left on early, and can potentially further dampen the rights.

This is why we see with so many children, especially the autistic population, They appear to be very intelligent. It's because the left side of the brain is more dominant, and the disruption is in the right side more of a brain.

And continuing to feed only the Left Side of The Brain is just going to cause a further asymmetrical function between both sides of brain The motor is imperative for children to develop properly.

If you are looking at your child and you're wondering if they did things on time, remember we've got the app, Connect My Brain app. It's free. And you can go through that and say, yeah, okay, my kid did this, no, he didn't do that.

You can start to understand it if you aren't 100% sure. Because most of the time what I hear from parents, oh yeah my kids did everything on Don't just make it a blanket statement.

Unfortunately, there hasn't been enough emphasis on looking at those developmental milestones and what they are to a developing brain. Your child moves before they do reading, writing, and arithmetic.

Movement is paramount. If you've been dealing in stress, for a very long time. And you've got little ones, you're pregnant, whatever the case may be. Or maybe what happened was your kids are now grown and you realize how much stress you really were under.

I need you to understand. When we live in a state of stress, we turn the blood flow off of this frontal lobe. Now for my podcast audience, I'm putting up a graphic and I will have Marcy put it in the show notes so that you can see it, but I am going to read the list.

When we go into a fight or flight, it is normal for blood to be shunted from the front of the brain to the back of brain, to our arms and legs so we can either run or fight.

But if this stays chronic, It changes the function of frontal lobe, which is also what happens to children. And if these slow waves dominate the frontal Lobe it's very difficult for them to pay attention.

Your prefrontal cortex is responsible for empathy, insight, response flexibility, emotional regulation, body regulation morality, intuition, attuned communication and fear modulation.

What's in the back of that is what's the limbic lobe where the amygdala is also communicating. and the limbic brain is going to modulate the fight-flight-freeze stress response and it thinks, am I safe?

Do people want me? Emotions live here. What is your brain state? We have to put all pieces together because you are a mechanical body, you're a chemical body and you have a mind and all three of those are needed to be regulated and balanced and the same thing is true for your child and if your went through any type of stress, especially while the windows of development are on, then that is also part of the blueprint that has brought them to where their state of health is today.

Feel free to reach out on connectmybrain.com. If you got a question, send me your question. I love it. Maybe she'll even hear me say it, I won't say your name, but I had the most delightful meeting with a woman from the Netherlands.

You know, always say, we're here to help our community, the world. Well, that really shows that we are reaching the word. And that's what Connect My Brain is about.

We want to provide you with the information you need so that you can make great decisions for yourself, for your children, and for family. And it does.

Everything starts with education. Thank you for letting me be part of all the things you listen to. Be sure to share the podcast and leave a review.