

Dr. Ron Ehrlich: Hello and welcome to Unstress. I'm Dr. Ron Ehrlich. Children's health, what a topic? One of the things we should be saying is that children are the canaries in the coal mine. Knowing how our kids are actually doing is I think a really important reflection on how we are doing as a society health wise. Things are not as you will hear in this episode looking all that great. In fact, many of you may have heard the predictions that this generation of young people may be the first generation to not live as long as their parents. Now, that is a really disturbing prediction, to say the least. Whatever the story, we all have lessons to learn about our children's health, the causes and what to do about it.

My guest today is Dr. Leila Masson. Now, Leila is the integrated medical practitioner. She's a specialist paediatrician. She also happens to be a lactation specialist, and we'll talk about that as well. Leila has written a great book. It's called Children's Health A-Z, and apart from that, she's an educator of both health professionals and the public. Today, she shares some great insights with me. Now in case, you're wondering what the term integrative encompasses, [an integrative approach](#) looks at underlying causes and the observations that Leila makes about children's health are just as applicable to us as adults, not just our children.

And as a paediatrician and also a public health specialist, she's interested as I think we all should be in disease prevention through healthy nutrition and lifestyle. Remember, so many of the diseases we hear about are preventable and according to the WHO, they involve nutritional and environmental and lifestyle issues. Leila is passionate about treating the whole child as well as supporting the whole family, and within her private practice, she also treats children on the autistic spectrum. She takes a holistic approach to behavioural and learning challenges as well as allergies and a whole lot of other paediatric health problems, and also, we'll touch on some issues around breastfeeding. I hope you enjoy this conversation I had with Dr. Leila Masson. Welcome to the show, Leila.

Dr. Leila Masson: Thank you so much, Ron for having me on your show.

Dr. Ron Ehrlich: Leila, we often as a society, we congratulate ourselves on living longer, but our kids do reflect how healthy we really are as a society. What are some of the observations you've made as a paediatrician about children's health? How are we doing?

Dr. Leila Masson: Well, it is true. Overall, they're living longer, but if you look at our children, actually more and more health problems, behaviour problems, developmental problems coming up. The percentage of children with ADHD, with autism, allergies, autoimmune diseases going up every single year and we have to ask ourselves, "Why is that?" Our genes haven't changed over the last 10, 20, 30 years, but our children really have in their health.

If you talk to a teacher who has been teaching for quite a while, they always tell me, You know, 20, 30 years ago, we have one child per age group in 100 kids that have problems and now we have five to 10 in a classroom who struggled to concentrate, struggle to learn, to get along with other children. All kinds ... All have allergies. We didn't use to have schools that

needed to be nut free, but now we do. We really need to be very, very careful to protect the children who have allergies, but it is a sign of the times that things are not going so well.

I always like to think like a detective, "What is the real cause for this? What's the reason and what can be changed?" I think there are a few things. First of all, we're not eating the kind of food anymore that we used to eat. Not that 30 years ago, everybody ate a perfect diet, but children nowadays eat much more processed food. If you look at, not everyone, of course, there are children who live in families that are very aware and that are already switching to [a more whole foods diet](#), but many children overall, if you look at them all day eat really is [a mixture of white flour, sugar, oil, and dairy in different variations](#). As a breakfast cereal, as a white sandwich with some cheese, a pizza, some pasta with cheese, maybe a bit of tomato sauce on it, a donut, a cookie, a muffin. It's not healthy. We need to eat real food and number one is vegetables.

Dr. Ron Ehrlich: Yeah. I want to get on to what we can be doing about it, but I just want to reflect on where we're at because some of those and then both you and I have been involved with the Mindd Foundation over many years, and some of the statistics are quite frightening. I wonder if you might share some of those statistics with our ... Well, like I've heard the one and three allergies, one and four asthma. ADHD is a pretty big problem.

Dr. Leila Masson: Yeah. Up to 10% of children in Australia diagnosed with ADHD, allergies. We are the asthma capital of the world here. There are no other countries has as much asthma amongst teenagers as we do, and children still die from asthma. It's really tragic. We also have now the statistics coming from the States that one in 38 children with autism.

Dr. Ron Ehrlich: Wow. Now, I did a program on this about five years ago or three years ago and it was one in 50 at that point, and it just seems to be getting worse and worse. A lot of people say it's about a diagnosis. What would you say to that?

Dr. Leila Masson: People looked into that because at first, of course, everybody said it has to be just better picking up of children. More services are available so more people want the diagnosis, but the studies had happened and to look into it say, clearly yes, there is better diagnosis, earlier diagnosis but there's also a real true increase. Most likely, so even the CDC in America now says the biggest part of an autism diagnosis, and the rise in the autism diagnosis is the environment. [It's toxins in the environment](#).

Dr. Ron Ehrlich: Yeah. Yeah. Wow. CDC is the Centre for Disease Control.

Dr. Leila Masson: That's right.

Dr. Ron Ehrlich: Yeah. That's right. Now, there's another term that's come to mind for me, and when people hear the term "PANDAS," they think it's some cuddly bear in China, but as a paediatrician, it has a very different meaning to you. Tell me about P-A-N-D-A-S, PANDAS.

Dr. Leila Masson: Yeah. I've just returned actually from the United States from a conference that had a whole day on PANDAS because it is increasing as well. It's one of those [autoimmune diseases that are on the rise](#), so it stands for Paediatric Autoimmune Neurological Disease Associated with Strep, Streptococci.

Dr. Ron Ehrlich: Wow. Okay.

Dr. Leila Masson: What happens with PANDAS is that a child gets a strep infection, so that's maybe a strep throat and within a few weeks, very suddenly their behaviour changes. They become very anxious, very OCD, obsessive-compulsive and repetitive, and sometimes they also have ticks. They may have facial tics where their eyes blink or maybe their whole arm moves. It's just unusual movements that they don't really have control over. They also very typically start wetting themselves again, which they didn't before and it's usually in kids before they hit teenage years. The normal age around 8, 9, 10, 11, something like that.

Dr. Ron Ehrlich: Is this night-time wetting or just daytime?

Dr. Leila Masson: No. Daytime.

Dr. Ron Ehrlich: Wow. Daytime.

Dr. Leila Masson: Yeah. Daytime, sometimes night-time is a little bit ... It's typically daytime really.

Dr. Ron Ehrlich: Losing control of their bladder.

Dr. Leila Masson: Absolutely. Their handwriting changes abruptly. Kids who were able to write quite nicely before all of a sudden can't write. You can barely read what they're writing anymore. Those are some typical symptoms for that disease and it is an autoimmune disease where your body tries to fight the strep infection by making antibodies. That's our immune system fighting the infection, and unfortunately, the antibodies also attack parts of the brain that for some reason, looks similar to the streptococci to the bacterium on their surface. There's inflammation in the brain and these children become in a way, mentally ill. I don't like that term, but they really are very unwell and some kids can't leave the home anymore. They have severe separation anxiety. They are repetitive. They have to check 10 times that the oven is turned off and that everything is okay. They see things sometimes.

The amazing thing is you can treat it. You give these children... I do not like giving antibiotics, and we clearly have a problem in the whole developed world of using too many antibiotics, but in this case, I do use them because usually within 10 days, two weeks, the child is back to their normal self their usual self. The antibiotics get rid of the strep, and then you really need to work on improving the immune system. Making sure that vitamin D level is fine, that they have enough zinc, that they're not eating foods that inflame their whole immune system any further.



Dr. Ron Ehrlich: Is it a relatively new condition? Has it been around for a long time? Is it on the rise? What's the trends?

Dr. Leila Masson: Well, it's probably been around for a long time, but not been diagnosed. I don't know whether you've heard of rheumatic [heart disease](#), which is exactly the same thing, but in that case, the antibodies that we produce against the strep don't attack the brain, but attack the heart. It can destroy actually part of the heart, and kids will have that called rheumatic fever. They need to be on antibiotics until they are 21 years old because they're such a high risk of a recurrence and further destruction of their heart valve that then if we don't want to take that vessel, we keep them on antibiotics and in rheumatic fever, some kids need actually a new valve. They need a heart valve replacement surgery, which is terrible.

Dr. Ron Ehrlich: Yeah.

Dr. Leila Masson: There are also people who get ... Their kidneys get affected, arthritis after strep infection. There are different ones. They've all been around for a long time. Then, there's one more called Sydenham's chorea.

Dr. Ron Ehrlich: Hang on. Hang on. It's called?

Dr. Leila Masson: Sydenham's chorea.

Dr. Ron Ehrlich: Chorea. Okay. Yeah.

Dr. Leila Masson: Where the kids make weird movements of the whole body, their arms. They can't walk. They're really ... It's very unusual. Also, sudden onset of the streptococci infection. The PANDAS is the newest in the club. That's a diagnosis that hasn't really hit the mainstream yet. There is research at the National Institutes of Health in America. The research has been done for 20, 25 years, and one of the big heroes of that is Sue Swedo, paediatrician at NIH and she's really brought this PANDAS to the other doctors. Many still haven't heard of it, but it is a real illness and there's a lot of research on that.

Dr. Ron Ehrlich: What is the incidence?

Dr. Leila Masson: I actually don't know what the incidence is. I don't know that we even have statistics on that.

Dr. Ron Ehrlich: Yeah. PANDAS is one condition, but far more commonly and then you mentioned that Australia was the allergy capital of the world. Why do you think that is? What is it about Australia that makes us so special?

Dr. Leila Masson: Well, it's a wonderful country. I love it.

Dr. Ron Ehrlich: We're susceptible. Yes. Yes.

Dr. Leila Masson: For allergies, I think one thing is that ... Well, I always love to think what is the best way of preparing a child for healthy life? You start before the birth with the mother having good nutrition during the pregnancy, but also taking enough vitamin D. We know there is a very high rate of vitamin D deficiency or insufficiency where it's just not good enough, the vitamin D. Even in Australia, our sunny country. Very important that the mother makes sure she gets enough vitamin D, enough folate, and sometimes ... Just a healthy diet. There, are supplements, I always recommend probiotics in the pregnancy as well to prepare her gut flora for the birth because we now know that the gut flora is really essential for your immune system. About 70 to 80% of our immune systems sit on the gut, and it is controlled by the bacteria, the millions of bacteria that live in our gut.

We have between one and two kilograms of bacteria that grow in our gut and we couldn't live without them. They digest our food for us, they produce enzymes, they produce some vitamins. They even produce neurotransmitters. It's really an explosion of research into how the gut flora affects not just our immune system but even our brain and behaviour, but back to the immune system and allergies, so we want that good gut flora. We want our baby to be born naturally and when the baby comes through the birth canal, it swallows the mums gut flora, so we want that to be a good gut flora. Unfortunately, a lot of children are born by C-section. Some hospitals have a 25 to 30% C-section rate. Just yesterday, I saw a mom who had a baby in C-section. I said, "Tell me why was the baby born by C-section? I'm always interested."

Of course, there are true emergencies and I'm very glad that we have C-sections available because it does save lives but in this case was, "The doctor just thought the baby might be a bit too big for me and I was a bit older, and so we just got the baby out two weeks early." The problem with that is that this baby is not going to have a good gut flora. Babies who are born by C-section, their gut flora resembles the skin flora. The bacteria that grow on the skin of the hospital workers.

Dr. Ron Ehrlich: Oh, wow.

Dr. Leila Masson: It's completely different. Yeah?

Dr. Ron Ehrlich: Okay. Yeah.

Dr. Leila Masson: That, of course, causes inflammation in the gut because that's not the kind of bacteria you're supposed to have in your gut. Then, the next thing is that because a baby was born two weeks earlier and the mom's body wasn't ready to go into labour, she didn't produce breast milk. This baby didn't get breast milk. Now, that's another big insult to the immune system. We know that when babies are breastfed, and first of all, it promotes a really good gut flora. Their special growth factor is called Bifidobacterium, which is the predominant bacteria in a baby's gut in breast milk. When you drink breast milk, you could have a beautiful gut flora.

Dr. Ron Ehrlich: There are some probiotics in breast milk?

Dr. Leila Masson: In breast milk.



Dr. Ron Ehrlich: Breast milk. Yeah. Yeah.

Dr. Leila Masson: There are. Yeah. There are also probiotics in breast milk. We used to think that breast milk was sterile, but it's not. There are bacteria that goes with the breast milk, but the babies has some bacteria in the gut, and then the breast milk promotes a growth of those nice bacteria, the ones we want. Also, the breast milk itself also has lots and lots of different growth factors for the immune system. We know that children, the longer they're breastfed, the less likely they are to have allergies. The recommendations is to breastfeed exclusively for six months, and that's really important. A lot of babies will start eating around four months, four and a half months and the babies are not ready. Their immune systems are not ready at that time to take food. They really should be getting only breast milk.

Dr. Ron Ehrlich: Going back to the C-section, because it is so common. With the vaginal swab, and then introducing it into the oral cavity. Does that sound too simple?

Dr. Leila Masson: That's actually being done.

Dr. Ron Ehrlich: Oh, wow. Okay. Wow.

Dr. Leila Masson: Yeah.

Dr. Ron Ehrlich: Does that make sense, what should these 25% or 30% of women who are having C-sections, what should they be doing to compensate?

Dr. Leila Masson: Yeah. First of all, a lot of hospitals do that now. They put a swab on a mother's vagina, and right after birth, they take that and swab around the mouth of the baby or even swab them on the mom's nipples and then, when the baby starts breastfeeding, it gets some of that good flora. The other thing I always recommend is to give the baby probiotics. We can buy probiotics that are made specifically for babies, and you get them as a powder and the mother can either just dip her finger in that and put the finger in the baby's mouth or express a little bit of breast milk and mix a quarter teaspoon of those good probiotics into there and give it to the baby in a syringe or something like that. I always recommend that.

Dr. Ron Ehrlich: That should go on for how long?

Dr. Leila Masson: Well, I would say the longer, the better. You're only seeding. It's like giving little seeds of good bacteria to your baby, so you're not really completely changing the gut flora in a week or two. That's why I think it's a good idea to keep doing it for at least two months, three months and that the baby is perfectly fine, breastfed, poos nicely, and it has those nice breastfed poos that don't smell and have little curdles on them, then you can probably stop. It doesn't hurt as far as we know to give a little bit from time to time, and again especially if the mom or the baby need antibiotics. That's the other hit that we have against our gut flora is that we have a lot of antibiotics. Some moms gets antibiotics during the birth especially if they get a C-section. Some get it after birth for whatever reason.



Dr. Ron Ehrlich: Is that given with the C-section as just a preventative measure in case of infection?

Dr. Leila Masson: Yes. Yes. Yeah, because infection rate would be probably quite high if they didn't get the antibiotics. It's a huge operation.

Dr. Ron Ehrlich: Yes. No, I know. It's not ...

Dr. Leila Masson: It's not a little cut.

Dr. Ron Ehrlich: No. No. No. It's a major abdominal incision. Gosh, I know. My wife went through it and my daughter went through it as well. I'm very familiar with that, and it's interesting to hear some of the challenges that come from it, a lot less known. We didn't talk about it 30 years.

Dr. Leila Masson: No, definitely not. Nobody was giving probiotics 30 years ago except in Germany where I'm from, so probiotics has been used there for a long, long time.

Dr. Ron Ehrlich: Because back to that PANDAS, which has the strep infection, which requires antibiotics and in fact whenever anybody has antibiotics, what would be the regime for probiotics? Like if you were taking three antibiotics a day for seven to 10 days, should you be taking probiotics while you're taking the antibiotics?

Dr. Leila Masson: Yeah.

Dr. Ron Ehrlich: Whats the ratio?

Dr. Leila Masson: It's a good question because when you're taking antibiotics, you're obviously going to kill some of those probiotics, but when you're taking antibiotics, you're changing your gut flora completely and I think if you give some good bacteria during that time, it is still a good idea and you should continue that probably for three weeks afterwards.

Dr. Ron Ehrlich: Once you stop the course of antibiotics.

Dr. Leila Masson: Antibiotics. I would continue for three weeks because it takes a while to replenish the gut with good bacterium. What I always recommend is once the kids are old enough to eat, you should give them fermented foods. That's really a natural way of getting probiotics apart from eating dirt.

Dr. Ron Ehrlich: Yeah, which a lot of kids do.

Dr. Leila Masson: A lot of kids do, and if it's clean dirt ...

Dr. Ron Ehrlich: That's good.

Dr. Leila Masson: There's such a thing. If there's no lead in it, there's no arsenic and no pesticides, it's actually good for the gut flora, and the wonderful Maya Shetreat-Klein, a paediatrician from New York is coming to the Mindd Forum.

Dr. Ron Ehrlich: To the Mindd Forum.

Dr. Leila Masson: She is going to present her book, "The Dirt Cure," which is all about that, about eating dirt basically.

Dr. Ron Ehrlich: Because we become so preoccupied with ... We have this adversarial approach to bacteria. We have for 100 years. Now, it's gone to the crazy part where everything is anti-bacterial killing 99% of the ... That to some degree could be part of what's going on with our allergies, couldn't it?

Dr. Leila Masson: Absolutely. That is a big problem that people disinfect too much. One thing is that even if you disinfect your kitchen, those really bad bacteria come back within half an hour, so you're not really disinfecting your kitchen anyway. [We are living in an environment that is too clean for our immune system.](#) Children who grow up on farms, who grow up with dogs who are quite dirty, but cuddly have a better immune system. They have a lower risk of getting allergies. It's really important to expose kids to good germs. Of course, you don't want to expose your child to any terrible, to salmonella or things like that, but the other actually interesting thing. As you know, we used to talk just about the microbiome and the gut as the microbiome is all bacteria growing in our gut. We now realize it's not just bacteria. We probably have about 500 different species of bacteria in our gut that fighting all for survival, and all have their roles to play in our immune system, but we also have lots of different viruses and even parasites that have evolved with us and that have an effect in our immune system.

There are some weird treatments out there now that I just heard about at a conference in the States where children who have really severe allergies, for example, are given some worm eggs from a beetle that can't grow. They can't reproduce in humans, but they just dampen down the immune system enough that these kids overcome their allergies. It sounds very weird and I'm not sure many people would be willing to take one egg, but the other thing was also a lot of research on probiotics and allergies, food allergies. At Stanford University, they're giving children lactobacillus rhamnosus and tiny, tiny amount of the food they're allergic to. For example, peanut and then they slowly increase the amount of peanuts and the children can eat it. After a year or two, they're no longer allergic. I think that's a fantastic area of research. I'm really looking forward to working with them.

Dr. Ron Ehrlich: Well, they're even talking about ... They do even talk about faecal implants, isn't it? Taking faeces from healthy individuals and implanting it into the colon of not so healthy, and getting some positive results there. I think we're heading into a whole new area of ...

Dr. Leila Masson: Yeah. Faecal transplants are now the standard of care for older people with clostridial infections in the hospital.



Dr. Ron Ehrlich: Wow.

Dr. Leila Masson: Because people would die. If an older person has a clostridial infection, which you usually get after having had too many antibiotics because all your good gut flora is destroyed, and the clostridia are so sturdy. They survive anything. There's nothing, no antibiotics that work anymore sometimes, and then the only thing that works is actually giving them a faecal transplant. There is a doctor in Sydney who even does it for people with Crohn's disease, inflammatory bowel disease and he has done research to show that these patients are doing very, very well.

Dr. Ron Ehrlich: Yeah. He's been doing it for a long time. I think I know who you're talking about, Tom Borody, isn't it?

Dr. Leila Masson: Borody. That's right.

Dr. Ron Ehrlich: Borody? That's right. Yeah.

Dr. Leila Masson: Yeah. Yeah.

Dr. Ron Ehrlich: Well, that would be an interesting discussion to have too. Onto some of the mental health issues because you mentioned ADHD and that's an incredible statistic, one in 10 kids with ADHD and the autism as well. There are some common themes though that run through them. You've mentioned vitamin D, and actually when I go down to the beach and I look at people wrapping their child up in ... With the best vitamin D still ... What is it? Sun.

Dr. Leila Masson: Yeah. We are supposed to get our vitamin D from the sunshine and whenever I post something on my Facebook page about how vitamin D deficiency is ramping and we should give vitamin D to children especially in the winter, people say, "But it should be natural." I totally agree. It should be, but if you look at it, we have evolved at the Equator where all year round, you have the same intensity of sunshine. Quite intense. We evolve there a long time ago and used to live without wearing clothes, so there was a lot of sun exposure and we were outdoors all day. When you look at how we live today, we live far away from the Equator where the sun is just not so strong enough in the winter to produce vitamin D in our skin, and we spend most of the time indoors, and we wear clothes when we go outside. Now, I do agree that we have to protect our children from sunburn.

The sun here is too strong and we have a very, very high rate of skin cancer from children being sunburned as children. Yeah. That's really a big risk factor. We have to make sure that doesn't happen, but we also need to get some sunshine and I will say usually before 10:00 a.m., after 4:00 or 5:00 p.m., the sun isn't strong enough anymore to burn your skin. You can get a UV meter at any ... Buy it online or at a shop, but also you can get an app on your phone that tells you how strong the UV is.

Dr. Ron Ehrlich: Of course. Right.



Dr. Leila Masson: How long you need to stay in the sun at whatever time to get enough sunshine to make vitamin D. I think that's fantastic.

Dr. Ron Ehrlich: Yes. Yeah. Yeah.

Dr. Leila Masson: That's a very useful app.

Dr. Ron Ehrlich: Yeah.

Dr. Leila Masson: Vitamin D is incredibly important. If you have low vitamin D, you get more infections. You get more allergies, more asthma, more eczema, and ...

Dr. Ron Ehrlich: More cancer. More other cancers.

Dr. Leila Masson: More cancer. Yes, absolutely. Autoimmune diseases.

Dr. Ron Ehrlich: How ironic, isn't it? Let's stay out of the sun to protect us from skin cancer. Yes, the skin cancer rates have gone down, but in the process, all these other things around vitamin D have gone through the roof.

Dr. Leila Masson: Yeah. If you look at the European countries that are as far away from the Equator as we are, just to the north rather than the south, they have public health policy to give all children at least from the first two years, vitamin D as a drop or as a tablet and it's a daily dose. I think that's really important to remember that you shouldn't ... Once in a while, there's a study that comes to us that says, "Vitamin D doesn't help. It doesn't work." When you look at the study, usually it's either a much too small dose that just wouldn't make any difference and if you give someone who's vitamin D deficient 400 units a day, that's just not going to touch it or they're giving it once a month or once a year even. They do studies where they give older people huge injections of vitamin D once a year and that's just not natural. It's like eating once a year, a huge amount and then hoping that the rest of the year will be healthy. It's just not going to happen.

Dr. Ron Ehrlich: Yeah. What's the normal figure for ... Because people don't get their vitamin D levels checked in their blood test, and I remember doing another program on this very subject and had never had my vitamin D levels checked. Well, I went and got them checked and I was clearly vitamin D deficient.

Dr. Leila Masson: Wow.

Dr. Ron Ehrlich: Very, 30 [inaudible 00:27:17].

Dr. Leila Masson: Oh, my God.

Dr. Ron Ehrlich: The normal rating to put a figure on it is what? Somewhere between 40 and ... What's the figures?

Dr. Leila Masson: No. No. Below 50 is deficient.



Dr. Ron Ehrlich: Okay.

Dr. Leila Masson: Below 80 is insufficient and the optimal is about 120. If you look at the Maasai who live in Africa near the Equator without wearing too many clothes and spending most of the time outside the way we evolved, their level is about 120 to 150. That's a really good level. Now, I check almost everyone of my patients. I check their vitamin D level because I think it is so incredibly important to know because you don't want to overdose. At the end of summer, which is right now, we're now at the end of March, your vitamin D level should be about 150 naturally.

Dr. Ron Ehrlich: 150?

Dr. Leila Masson: If you've spent enough time outdoors and the children I check now who do spend lots of time outdoors and have a nice tan, they naturally, without taking any supplements, have a really good level.

Dr. Ron Ehrlich: Yeah.

Dr. Leila Masson: That's a minority. Most kids are already low now, and we know that whatever the level is now from now on is going to go down, down, down every week.

Dr. Ron Ehrlich: Yeah. Wow. I'm feeling weak. I'm just thinking ...

Dr. Leila Masson: Well, it's important for your bones too, you know?

Dr. Ron Ehrlich: Absolutely.

Dr. Leila Masson: That's your mood.

Dr. Ron Ehrlich: [If you've had a diagnosis of cancer](#), it's even more important, isn't it?

Dr. Leila Masson: Absolutely. Yeah.

Dr. Ron Ehrlich: Golly, 120. My 30 is a shocker. That's a wonder that I even can stand up and survive, but it was probably like that. What I reflected on it was, I had this test done. I never had it done before, and I'm sure it's been like that for 20 or 30 years because nothing else had changed.

Dr. Leila Masson: Wow.

Dr. Ron Ehrlich: That's really scary and even more so to hear you say 120, but anyway, that's okay. We can get the sun. We can get supplements. The supplements should be taken regularly, and they should be a sufficient dose to make a difference.

Dr. Leila Masson: Yes. I think especially in the winter, especially in pregnancy, especially while breastfeeding, that those are the most important times to really make sure

you've taken vitamin D. In the summer, if you're healthy and you do spend time outside, you don't have to take a supplement. Yeah.

Dr. Ron Ehrlich: Because I've heard that vitamin D and thyroid hormone are the two ones that impact on almost every cell in the body.

Dr. Leila Masson: Yeah.

Dr. Ron Ehrlich: Absolutely critical. Wow. There are some other common themes in problems of these mental health issues. You've mentioned vitamin D is one. You've mentioned the gut microbiome. What are some other issues that people should be looking at?

Dr. Leila Masson: Well, I think another really important one is [environmental toxins](#). What I do when I see a child with new diagnosis, let's say ADHD, I want to check that there isn't something that mimics ADHD. For example, if you have lead in your blood, your behaviour will be just like a child with ADHD, but in fact, what you have is lead poisoning. Same thing with mercury. I check a lot of children, and I do get quite a few high levels back especially if children eat a lot of fish, large fish like catfish and kingfish and ...

Dr. Ron Ehrlich: Tuna.

Dr. Leila Masson: Tuna. They can have very high mercury levels, and I have had patients who've had a diagnosis of autism and had a sky-high level of mercury and then I tested the rest of the family, they were all very high. They were all unwell. We got rid of the fish and over a few months, the mercury levels went down and the autism was gone and with ADHD, the same with lead. Then, iron deficiency. It's very common nowadays, but children to be iron deficient and one of the reasons is that a lot of babies are being put on reflux medication.

Dr. Ron Ehrlich: Reflux medication.

Dr. Leila Masson: Reflux medication, which if the baby is very irritable, not fine.

Dr. Ron Ehrlich: We're talking about things like Nexium?

Dr. Leila Masson: Losec. Yeah. Yeah. Zantac.

Dr. Ron Ehrlich: Losec, Nexium. These protein pump inhibitors at a young age?

Dr. Leila Masson: Yeah. From a few weeks of age because the baby does cry and is upset, but most paediatricians realize that the number one reason for that is that they are sensitive to something the breastfeeding mother is eating and usually it's dairy. If the mom takes dairy out of her diet, in 80% of cases, the baby's fine. There's no more crying, no more reflux, baby is much more settled, but it hasn't trickled down to everybody. A lot of babies has to put on those medications, which reduces the acidity in their stomach, but that acidity in the stomach is actually needed to absorb iron and B12. If you don't absorb iron and B12, you become iron deficient, B12 deficient, which has an effect on your brain development.



Dr. Ron Ehrlich: Wow.

Dr. Leila Masson: In the longer term, kids with ADHD. If a child is iron deficient and can't concentrate and is hyperactive, has trouble sleeping, you can just beautifully treat that by giving that child some iron rather than medication that suppresses that hyperactivity, and they do fine. There are certain nutrients that kids can be low in that then show up as something that looks like ADHD. Now, ADHD, this diagnosis is any way a diagnosis. It's totally subjective. It's just based ...

Dr. Ron Ehrlich: There's no blood test to say, "Oh, you've got ADHD."?

Dr. Leila Masson: There is no blood test. It's not like diabetes where you say, "Oh look, your blood sugar is high." Not like that. It's really how does a child behave in two different settings. Let's say home and school. If they're hyperactive, they don't pay attention, they don't finish their work, they don't get along with the other kids and interrupt them. You get the diagnosis if you match enough of the points, and often, they put on a medication, but the real treatment should be looking at, "Do they not have enough iron, enough zinc?" Zinc is very, very important for brain processing, so your frustration tolerance, and for concentration.

Dr. Ron Ehrlich: Zinc deficiency is very common?

Dr. Leila Masson: Very common in Australia because our soils are so low.

Dr. Ron Ehrlich: Yeah. Our soils. Yeah. Soil's low in selenium, zinc, magnesium.

Dr. Leila Masson: And iodine.

Dr. Ron Ehrlich: And iodine, which, I learn so much from the people I talked to Leila. Another one was that iodine is the biggest deficiency in the world.

Dr. Leila Masson: Yeah. That affects children's development. That's the most preventable cause of developmental delays and intellectual disability, iodine deficiency.

Dr. Ron Ehrlich: How should we be getting in this day and age our iodine?

Dr. Leila Masson: Well, the recommendation actually is now that pregnant mothers take iodine as a supplement during the whole pregnancy because the risk was so high that they're not getting it from their diet. There are foods that are high in iodine. For example, seaweed. A lot of kids I know love to eat seaweed snacks, and I don't understand why they're so expensive. You pay \$5 for a tiny little box of seaweed. Seaweed is a great source. You can get iodized salt, but you'd have to have a lot of salt to meet your iodine requirement. I think eating that, and then for selenium, Brazil nuts are a really good source. Having a Brazil nut a day. For adults, three Brazil nuts will meet your requirements.

Dr. Ron Ehrlich: Wow.

Dr. Leila Masson: The other thing I was mentioning was zinc. If you want to check for yourself, look at your fingernails and see if you have white spots in your fingernails. If you have white spots, you're quite likely to be either zinc deficient or selenium deficient. Zinc, you usually get smaller little spots and selenium, larger spots. A lot of the kids I see who come with the diagnosis of ADHD have those spots, and then I checked the blood levels and it's low and we give them zinc. Within a few weeks, they start being less frustrated, more even, can concentrate better, all of those things. One more nutrient that I think is very, very important is Omega 3. That is one actually that most paediatricians nowadays will give kids with a diagnosis of ADHD, a high dose Omega 3 supplement that has EPA and DHA. Those are the two essential fatty acids that we can't really produce ourselves.

Usually, we get them from fish. I am vegetarian, so I don't use fish. I use algae oil, which is where the fish get their Omega 3 from. They eat algae to get that, and that's a very much cleaner way of getting Omega 3 because the fish as you said are contaminated with mercury and PCB and dioxins, so to get a clean fish oil, it has to be molecularly distilled that makes it very expensive. Now, we have more and more brands that are producing algae oil and there's also something you can check on your body. If your child has on their upper outer arms very dry skin that feels a bit like sandpaper, that's often a sign that they don't have enough Omega 3 in their body. Actually, hardly anybody has enough Omega 3. They have done studies because we eat too many other fats that are not healthy, all those hydrogenated oils in baking.

Dr. Ron Ehrlich: Well, [we've been told too by so many authorities to go stay away from animal fats](#) and focus more on the vegetable oils. The vegetable oils are higher in Omega 6, I think. Is that ...

Dr. Leila Masson: Yeah. I personally only use olive oil. That's definitely a healthy oil.

Dr. Ron Ehrlich: Yes. That's a good one. Yeah.

Dr. Leila Masson: Sometimes I use a bit of coconut oil, but I used to have more of it, but now with the new studies, I'm not eating it by the teaspoon anymore.

Dr. Ron Ehrlich: Okay. Okay.

Dr. Leila Masson: Not that I ever did, but I think all of us, we did the best and I eat fresh nuts and seeds and they are healthy. They not only give you good oils but they also give you magnesium, which has been important to be calm and relaxed and happy. Then, you really need the Omega 3. Some people say, "Oh, I just want to have flax seed." That's okay, but you would have to actually do a test on yourself, either genetic test or a biochemical test to see how much of that flax seed you convert into the DHA and EPA, the essential fatty acids because some people are just not very good at that. They would have to drink like a litre of flax seed oil to make enough.

Dr. Ron Ehrlich: Yeah. Yeah. Is a vegetarian ... Is there a likelihood of a higher copper issue in vegetarians than zinc? Is that an issue or no? Not really?

Dr. Leila Masson: Not really. The issue with zinc and copper is that they're a bit like a seesaw. When the zinc is low, the copper goes high. That's not good because low zinc makes you easily frustrated, and the high copper makes it explosive. That's the typical child that comes to my clinic, really on edge and then explodes. If you give zinc, the copper comes down nicely just by giving enough zinc, and I haven't seen that vegetarian kids are higher in copper.

Dr. Ron Ehrlich: It must be so interesting in your clinic compared to ... Because I imagine there are some doctors who will look at this child and try to work out what medication will balance their behaviour out, and you're looking at it and going, "Just wonder what nutrient's that?" People don't realize that there is a such a strong connection between what we're eating and the behaviour.

Dr. Leila Masson: Absolutely. It's a huge area of research now. For example, also, just if you look at food, additives in food are clearly causing hyperactive behaviour in some children, not in all of them. Like for example, the colour 102, the orange in some lollies and drinks, and 202, the preservative can make children or not even children with a diagnosis of ADHD. Without the diagnosis makes them hyperactive if they have that. They have done studies where they have taken two groups of children and they did a party scenario, birthday party, and one group got the 102 and 202 in their drink, and the other one got a drink that looked the same, tasted the same, but didn't have those additives in it. Within an hour, the kids in the additive group were, wild uncoordinated, fighting. The others were playing happily and cooperatively. We know that that's happening, and a lot of parents are aware of that now and cut out the additives of their diet.

That's always my very, very first recommendation. Just get rid of the additives. You don't need those. They are not good for you. They don't do anything for you. They just make the food look more enticing so that you would buy it, but it's not good for you.

Dr. Ron Ehrlich: Yeah. Now, you are also a lactation specialist, and you've already mentioned that something is there. I think the other thing that a lot of mothers, families, parents aren't aware of is when the child's response is one of reflux that it's so often related to what the mother's eating and then that can change. You mentioned dairy as being the problem. Are there other foods that mothers should be looking out for that's commonly causing problems in lactation?

Dr. Leila Masson: Well, I really don't like mothers to restrict themselves too much. I have some moms who come and they're already eating only like three foods because they were told so many different kinds of foods by different people that may be a problem that they just don't eat anything anymore, but in general, I would say look at your family and see if you yourself, the father of the baby or anyone in the family has sensitivities to food. The more common ones would be the common allergens, egg, soy, wheat, corn, nuts, but they may not be a problem. We used to be big on not eating cabbage and foods that could make the baby bloated, but I don't really see that much.

I think if the baby has a good gut flora, then really it's usually foods ... Dairy in particular. We are not evolved to drink the milk from a different species. Babies immune systems are

not equipped to deal with cow's milk protein, some okay. Some children have ... Especially if you come from, I don't know, Denmark or Norway. People from there have adjusted genetically to living with cattle, and drinking milk, but a lot of us are not. I would say, dairy is really the number one. If you take that out and then do a few things for your baby like holding them upright a lot. We don't hold our babies enough anymore, I think. I love it when I go for walk in Bondi and see the babies in the front packs.

Dr. Ron Ehrlich: In the papoose. Yeah.

Dr. Leila Masson: The moms and dads carrying them. It's so wonderful because we're just holding them, and not having them lying flat in the stroller. Even at home, I always had a sling and I had my babies in the sling and I walk around and do all the other things I needed to do. They were sleeping in there and then they were breastfeeding in there, and then they walked out.

Dr. Ron Ehrlich: Yeah. Yeah. Well, it just been their whole life up to that point pretty close in that position.

Dr. Leila Masson: Exactly. Yeah. I love the practice in Bali. They don't let their babies touch the floor for the first six months. They're always held by someone. That's so wonderful.

Dr. Ron Ehrlich: Yes. Yeah, yeah, yeah. I once read a book called The Continuum Concept.

Dr. Leila Masson: Oh, I love that book.

Dr. Ron Ehrlich: Me too. We're going to have a word with my wife about that, but she wasn't so crazy about it, but I got ... Anyway, that's a whole other program. Listen, if we were going to reflect now and give our listener some hints. They've got a young child or they've got children and they're wanting to ensure that they are the best of the health. What would be two or three or four, five hints that are things you would give them?

Dr. Leila Masson: Okay. My short list of getting a child on the path of optimal health is number one, to give them real food. Okay? You eat lots of vegetables. If you look at the plate, it should be half filled with vegetables, a quarter should be your starchy foods, and a quarter should be a protein and the less meat, the better in the long run and in a short run. That's number one, real food. Whole foods.

Dr. Ron Ehrlich: Yes.

Dr. Leila Masson: Number two would be to get enough sleep. I think we forget about how important sleep is. There is no way that a child can concentrate or be happy or have a healthy immune system if they are sleep deprived. We really, really need to look at that. One of the things that we do far too much is have the children play the screens and the colour of the screen, the blue colour actually interferes with the production of melatonin. When you look at that blue screen, it hit the blue colour, the blue light hits your retina, the



back of your eyes and stops you from producing the hormone melatonin, which you need to produce to fall asleep. We need to make sure kids sleep enough and don't spend too much time on screens.

Dr. Ron Ehrlich: Yeah.

Dr. Leila Masson: Then, avoiding environmental toxins. I'm actually just sending out a newsletter, I think this weekend to everyone and anyone can sign up it on my website all over my blog.

Dr. Ron Ehrlich: Yeah. We'll have links to all of that.

Dr. Leila Masson: That has a checklist on what you can do to reduce toxins in your child's environment, and that's really a step-by-step simple thing like taking your shoes off when you come into the house.

Dr. Ron Ehrlich: Yeah. I've heard that said so often.

Dr. Leila Masson: Because whenever you come in, your shoes will have pesticides on the soles. They have all kinds of bad things on there. That's really a simple one and getting rid of all the chemical cleaners. Just get rid of them. Whatever you use to clean your house, traces of that will be found in your food. Do you really want to eat a little bit of some horrible chemical that you use to clean your windows? No, you don't. A study that just came out a week or two ago showed that if you use a spray cleaner, it is as bad for you as if you smoked a pack of cigarettes.

Dr. Ron Ehrlich: Wow.

Dr. Leila Masson: You really should get rid of these. The WHO, the World Health Organization recommended after that study to get rid of spray cleaners. Number one, food. Number two, sleep. Number three, environmental toxins and number four, I would say is a really healthy lifestyle. Lots of time spent outdoors. Lots of time spent active, and then green environments. Even for ADHD, there's now a treatment that is called green time where the children just spend time in green spaces, and it calms them down. They concentrate better. They're more creative after a walk in the woods or a play in the playground that's surrounded by green. Really, that's very, very important. I think those four things would be my basis for good health, and they're not that difficult to do. It does take a bit of time if you are not on that path already, but it's not that difficult. Just really looking back at how did we grow up? How did our parents grow up? Why were they so much healthier in a way? Not all of them, of course, but I think that's just back to the basics.

Dr. Ron Ehrlich: Yeah. Yeah. That's good. Listen, just finally, would you want to take a step back from your specialty as a paediatrician and lactation specialist and say ... I'll ask you this question. What do you think people ... You've covered some of them really, but what do you think people's biggest challenge is today on their healthy journey in our modern world? As they work through life. What do you think the biggest challenge is?

Dr. Leila Masson: The biggest challenge, I think is the eating real food really because it makes such a huge difference. You are bombarded with advertisements for foods that are processed. If you go to the supermarket, 90% of the food you can buy there is processed, full of additives, is just as I mentioned at the beginning, a mixture of processed white flour and some unhealthy oil and dairy and sugar. If you just buy the foods the advertisement tells you to buy, you're going to be eating unhealthy food and that will cause all kinds of health problems. We do know that blood pressure, heart disease, cancer, autoimmune diseases, all of those have to do with diet to some degree. I think stress is the other big one. Not just adults are stressed, children are stressed already and it is probably because the parents are stressed. I see it so often that if parents are very, very stressed. They have good reasons to be stressed. Life is expensive. You work hard. There are maybe ... You managed to take care of your parents with Alzheimer's at the same time as you have little children, the sandwich generation.

There are so many reasons to be stressed, and I think we really need to find a better life-work balance, get more community around us so that we can somehow reduce the stress and not get our children to already start on that path of being stressed from very young. Allowing them to play, allowing them some free time and maybe even to be bored from time to time. We know that when children are bored, they actually come up with really creative ways of entertaining themselves. We schedule them nowadays so much. They have so much homework. Then, they go to all their after-school activities and of course, we want them to be well rounded human beings and have had some music and some exercise, and all these different things that we provide for them after school, but the most important thing for a young child is to play. That's how they learn, and that's how de-stress. We need to give them that time. Maybe for adults, it's the same thing. Maybe they need to play more.

Dr. Ron Ehrlich: Yeah. Fantastic. Leila, thank you so much for joining us today. We're going to have links of course to your webpage, and we look forward to talking again.

Dr. Leila Masson: Thank you, Ron. It was a pleasure.

Dr. Ron Ehrlich: Thank you. We will of course have those links to Dr. Dr. Leila Masson's website and her wonderful book, Children's Health A-Z, which incidentally is also available as an eBook. Leila and I have ... We're very proud to support and present at this Annual Mindd Forum. It's the 10th Annual Mindd Forum in May 2018 at the University of New South Wells here in Sydney. Now, Mindd, M-I-N-D-D stands for Metabolic, Immunological, Neurological, Digestive, and Developmental Conditions. The forum always has two strings. One for health practitioners, and the other for the public and they are always sold out events, but now in case you ... They're always full of great information. This year, it is the first time. If you missed that on the public stream, it's also available online and then we'll have links to that online streaming, which recordings of the forum are great to watch.

Now, if you've enjoyed this or for that matter any of our other podcast, spread the word. Share it with friends and family. It's an important message about personal empowerment, taking control of your health and your environment. The two are inseparable and above all, building resilience, physical, mental and emotional resilience. With that in mind, until next week, this is Dr. Ron Ehrlich. Be well.



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