



# TEFOS 2019

The Executive Function Online Summit

Hosted by SethPerler.com

## How Lifestyle Choices, Sensory Function and Vision Development Affect Executive Function

Seth Perler: Hey, what's up everybody? Welcome back. My name is Seth Perler and we are here with the executive function online summit and I'm here today with Patty Lemur out of the northeast and she has been working with kids and families for over 40 years now and she's had a lot of her specialty has had to do with autism. Um, and today she's going to talk about lifestyle choices. She's going to talk a lot about vision and how vision plays into this whole idea. So how are you doing today, patty?

Patty Lemur: I'm great Seth. How are you?

Seth Perler: I'm so good. I'm so excited to have you here. Um,

Patty Lemur: I'm honored to be on your summit. Thank you for inviting me.

Seth Perler: You're so welcome. Um, so tell us a little bit about what we're going to learn today.

Patty Lemur: So I've worked with people with all types of disabilities, as you said, for a long time. And executive function is a term that's come up a lot because of the problems that kids with attention. Jessie said some learning disabilities and autism have. And so my approach has always been kind of heretical and thinking, well what else could it be? What are some of the things that masquerade as autism and attention deficit? And of course executive function. So that's what I'm going to talk about today. Some of these masqueraders so that parents can say, well, my kid does have a diagnosis of executive function, but let's look up some of the other possibilities. Is he getting enough sleep? What does he do with his spare time? What is he eating, drinking, breathing. So those are more lifestyle issues. And then there's some medical issues, but we're going to talk about maybe he's on some medication, maybe he has some kind of physical problem that could be affecting his executive function.

Patty Lemur: And then we might talk about some sensory issues. The senses are of course, how we receive information through our touch and our hearing and our, our vestibular system, which is our balanced system. But the thing that I'd love to spend a lot of time on, because I think it's so misunderstood, is visual function. And what is vision and how does it differ from eyesight? And how does vision develop and how do kids learn how to use their vision and what aspects of vision are involved in executive function and how, if a child has difficulty with vision, how that would translate to difficulty with executive function?

Seth Perler: Awesome. I look forward to about this myself. I always talk about what I call iceberg theory, where a lot of times we see what's on the tip of the iceberg and we will see the grade suffering or, uh, outbursts emotionally or whatever is very easy to see. And then we do our best to address what we think is going on. But a lot of times we're missing what's underneath the iceberg, which is the bulk of it. And yet

Patty Lemur: I love that analogy. And I started out as a psychologist and I was trading behaviors. And this question kept coming up. What's causing these behaviors? Why is this kid not paying attention? Why is he reversing his speech days? Why can't he organize his homework? Why is he having meltdowns when we, he knows exactly what's required. And he's done this a million times. So I love the iceberg theory. And so I'm going to talk about what's underneath that.

Seth Perler: Perfect. Perfect. So tell parents who you are, not professionally, but personally, what, what, what are you interested in and who is Patty?

Patty Lemur: Okay. So Patty is, um, known for kind of challenging the status quo. And I once wrote an article called when AGD first came out, it was add, didn't stand for any fish function or disability. And is it really the emperor's new clothes? Because as you know, there's really no good test or ABPA, there's no blood tests or your end test. And although our brain scans are showing some aspect of brain dysfunction, it's different for everybody. And so that's what I got really interested in some of these things. And I am a diagnostician at heart. I love looking for clues. And so patty, somebody who is a diagnostician 24, seven, and I'm always trying to figure out the puzzle. I love Nancy drew mysteries as a child. And I now have a radio show called the autism detectives where I work with, um, I have parents on my show who come on and say, well, my child had constipation and I never had any clue that constipation at anything to do with us, or my child was disorganized there. My child had ear infections and my doctor trainer, those here infections. But little did I know that down the road those might have something to do with his learning and behavioral issues. So that's who patty is. She's a questioner and she's likes to look for clothes, try to find solutions that can help families and kids do better.

Seth Perler: So have you always been like that even since a child, you said reading Nancy drew, but even were you always someone who is just skeptical and thinking that there is more to the story?

Patty Lemur: Yeah, it was always why, why, why, why, why? I wanted to know why things were happening and I just, I didn't like a lot of the answers. The answers were, didn't make any sense to me. You know, he, he can't do, he can't organize his homework because he has executive dysfunction, executive function dysfunction or he has attention deficit disorder and those, those didn't.

Seth Perler: Right. And to me it's like saying yes, my brain says he has a headache. No it didn't tell me anything. So I wanted to look deeper and let's just say for Niecy iceberg and you're saying my history kept coming up, the same risk factors. [inaudible] has many, many, many of the same um, problems early on in life. And I developed something called total load theory, which is as if you have, sorry

about that everybody. We just had a technical difficulty. You were talking about total load theory. What is total load theory?

Patty Lemur: So I developed this idea of total load where everyone has like a personal threshold and if you do have stressors, these stressors add up. And so if a child has had ear infections and maybe Eczema and maybe allergies and then he has another ear infection and he takes antibiotics,

Patty Lemur: he might go over his personal limit and have significant difficulty. And so any one of these things isn't going to cause serious problems. But as they all add up, the body is overstressed and the body is like a bridge. And it, it's number one priority is staying well. And so if it can't stay well, it can't listen and it can pay attention because it's putting all of its energy into digestion and to clearing toxins and other things. So if you have a child who has a lot of medical issues or health issues and you want him to remember to pack up his backpack in the same way every day, you may not be able to do this because he's going to have some of the same technical glitches that this recording just had. And it's as his, he's digesting his food. And if he had something for one that was problematic for him, his body's going to say, honey, I'm not gonna pay attention. I can't do my homework right now because that thing that you send me for lunch, that grilled cheese sandwich, it's just too hard for me to digest. And that's when I'm putting all my energy into.

Seth Perler: And he may not even have an awareness. Correct. They're all of these little things going on. And then as you said before, so we might have a label of add, but just having the label doesn't tell us about all these other things that can sort of be going on in the background hidden. Correct.

Patty Lemur: Correct. And so this theory helped me short out for many kids, what were some of these load factors that were going into his issues. And if we could peel the onion, we could get from above threshold down to below threshold and even way down below threshold where a child good then muster up enough energy to do the things that are required for him to focus on his homework and pay attention.

Seth Perler: So how did you get into all of this and what, what's your professional background? Did you study to be a teacher first or

Patty Lemur: no, I, I have a bachelor's and a combination of psychology and mathematics because I would very interested in quantifying behavior. And so I, this was my undergraduate degree, was in something called psychometry psychological testing. So I was the one who you send kids to when they had neuro-psychological what was going on. And I was using these tests, which were rather silly with 2020 hindsight because they told me what I already knew that the kid couldn't pay attention, that he had trouble with sequencing, they had trouble with spatial relations, that he had trouble organizing his thoughts and all things like that. But it didn't tell me why.

Seth Perler: So as the diagnostician, you would use all of these tests that you were taught to use in university and then you would put them through a series of a bunch of

different tests and still come up with information, but it wasn't getting to the root of, of useful information that told us, what can we do about it?

Patty Lemur: You got it, you got it. And so I am so glad you're here. So that was my goal was to then take a really in depth history with the family and find out why the child had these issues that were showing up on my psychological tests. And I started out with let kids with language issues and it was clear that many of them had had ear infections, some of them had had allergies, many of them had had rounds and rounds of antibiotics. And we saw that over and over and over again. And then I got involved with nutrition and people's, uh, nutrition who I worked with, a nutritionist I worked with said, oh patty, look at the Diet of all these kids. You think it's a coincidence that they're all living on wheat and berry products? Every one of them has cereal and milk for breakfast and macaroni and cheese for dinner and a grilled cheese sandwich or a Bagel and cream cheese for lunch.

Patty Lemur: And it's the same food over and over again. So I started reaching, searching, what is wheat and dairy? Do we all the gluten from the wheat and the casing from the dairy chemically combined to form an OPA. So, you know, we're in the middle of an opiate epidemic, but these kids are naturally, naturally drugging themselves with wheat and dairy products. And that science is very clear. And Karen Ceruzzi, who was a mother of a child with autism in the 90s, um, discovered that with her own kid and started putting her child on a wheat free dairy free diet and Aye took advantage of her findings and started talking to parents about, well, what, what, what happened do you think? And the parents would say he'd star and many of them were willing to try it. And sure enough attention improved health improved. Um, sleep, improved, appetite improved. Once we got over the Hump and these kids would actually eat salad and they would eat Brussels sprouts and they would eat strawberries and fruit in the summer. And all of a sudden we had a healthier kid. But more importantly he was paying attention. And the teacher said, what medication did you put them on? And we said, oh, it's called Diet.

Seth Perler: So the idea here is you have this threshold. One of the factors is diet. Two major things are dairy and we you removed dairy and wheat and you see in a lot of students that it seems like their threshold is changing so that cognitively they're suddenly able to,

Patty Lemur: I attended better, more clearly and more effectively. Right. And then a second thing was sleep. I may sleep was huge.

Patty Lemur: These kids were terrible sleepers. They, they, we're night owls, they'd get a second win, they couldn't fall asleep and then in the morning they couldn't wake up. And you know how early school starts now for kids, it's really terrible. Their parents were yanking them out of bed and dragging them to the bus and they were not really, um, there when they were in school and then they'd wake up around three o'clock and it was time to go. So sleep was an issue. How many video games they were playing was a huge issue. And um, we've talked to parents about, um, limiting the number of video games and actually balancing out screen time with large motor activity, like some bike riding or swimming or ball playing if sometimes. And that was very effective with a lot of kits. And so

man, so much so, and some of these kids were able to stop taking some of their medication.

Seth Perler: So before we get more into this, uh, let's define executive function a little bit. So we have these parents that are coming to this conference because suddenly in our culture people are starting to talk about executive function where a lot of families used to um, do what we were talking about, see the tip of the iceberg. And for my practice, what I see a lot, um, and why I think a lot of families are so interested in this topic is because, um, they see their child not being able to do what needs to be done for school. And I talk about executive function in terms of getting stuff done. Now the executive function is really a problem with getting stuff done that we don't want to get done. Like getting the video games done is they don't have trouble executing with that. But executing in order to execute on chores or schoolwork or responsibilities or goals, like getting a driver's license or things that ended up being important. Um, they can't do all, all the pieces to the puzzle or a college application is a massive thing to execute on. So what do you think is important about defining executive function within the context of your work?

Patty Lemur: Well, I think a couple of things. First is the actual sorting out the important thing from the background noise.

Seth Perler: How did we do that? [inaudible]

Patty Lemur: so you help a child prioritize you. You can reduce the noise by reducing clutter and have a, a specific place and time or for everything. But Aye, I don't like organizing the environment as, as I like retraining, but the child from the inside out. Got It. And that is helping the child be able to say, Oh, here's my backpack and there's my video game. But right now my job is to organize my back. And the way that that happens is through a very complex, um, sequencing of sensory, a bombardment of all the different senses. And this is hierarchical where a child first envelops touch and movement and smell and taste. And that's the way a baby develops. Eventually a child is going to pay more attention. Two, what he hears and eventually to what he see. And so from a maturation point of view, we have to help our kids organize there touch and movement senses.

Patty Lemur: And many of our kids are in occupational therapy because they are so kinesthetic in their approach to there homework and too even relationships and and their belongings. So if they didn't touch it, it doesn't exist because if they just look at it, they're not giving meaning to it. So a good occupational therapist recognizes this and a good preschool teacher would recognize that a child needs to move to be able and touch, to be able to know that for instance at the stove is hot, mommy can say don't touch, the stove is hot, you'll get burned. And how many little kids actually can do that? They have to get burned. What? So for you, executive function has a lot to do with, we're trying to get this stuff done. We have to figure out how to prioritize what to get done, but we have to really take into account kinesthetic, visual, auditory, these sensory things that are going on in a lot of times parents and teachers don't have the background knowledge to

know how to use this information right, and if the child is still very kinesthetic, is he is not using his vision.

Patty Lemur: If he is still using touch frequently to give meaning to his world, that has to be calmed down. It has to be calmed down and his nervous system is touch and movement. He needs those, those experiences and we don't want him to do it in class. We don't want him to be, the kid is wiggling all the time and who is is throwing things and hitting his neighbor and and w going around in his desk looking for his pencils and his papers and his notebooks. We want him to eventually get those normalized so that he can open up his desk and find the notebook that he's needs to put in his backpack. And in order for vision and auditory to emerge as primary senses, the child has the normalize the movement. And so one of the things that I recommend to parents a lot is to give kids a lot of exercise. Pretend the child is a St Bernard puppy and get him moving, moving, moving before you ask him to settle down and do his work. And so it may be on a treadmill, it may be playing ball, it may be something else, big motor, but it's not a video game. It's not.

Seth Perler: That's one of the problems, right? Like kids come home, they'll sit down and start gaming and then we expect that. Then they transition into homework. And right there is no, and w they're very sedentary. Well let's Patty, let's back up. Let's go step by step through talking about sleep deprivation and executive function. Screen time, then the food and sensory processing and then vision. And then is that sound good to go in that order?

Patty Lemur: Sure. Okay. Touched on a bunch of those though already.

Seth Perler: We did. We touched on a bunch of them. And then as you've been talking, what's what's been going on in my head is starting to say, well how do we do this? How do we do that? Like thinking, what would parents say for the how? So let's talk a little bit about sleep deprivation. I'm maybe touch on it with anything else we needed to know and then tell us, how does a parent who's got a kid who's obsessed with electronics and wants to stay up and game or be on snapchat or whatever, how do they, or you have a high schooler who wants to stay up til 2:00 AM but it has to be up at 5:00 AM for school. How do, how do we, how do we start changing this? So let's, let's dive into sleep deprivation.

Patty Lemur: All right, so lets, the parent has to start with what we call a sleep hygiene program and he has to be stalwart about it that you have to take away. The electronic devices have an absolute bedtime, the lights go out, you have a bedtime routine. Okay, homework is done by a certain time, 10 o'clock the lights go out. You have a time too, Reid. There should be no electronics within an hour of bedtime. The room has to be absolutely dark and the all chores are done. The child gets his drink of water, he gets a, maybe a mother or father's caregiver reached to him while he's quiet and he gets in his own bed and the lights go out and it's over. And if he's not tired, he can just lie there. You can play some music, you can use some, um, some essences, some, uh, oils to help calm him down. But he's in bed and he must try to go to sleep. And some kids at the beginning, we'll take a couple of hours for this to happen, but the time will get shorter and shorter and shorter if the parent is willing to be stalwart. That's my word about

enforcing these parameters, which are what we call sleep hygiene. And the younger you do it, the better.

Seth Perler: Yeah, yeah. Cause by the time they're in high school, it's going to be a real battle.

Patty Lemur: Really, really hard. You don't have a lot of control.

Seth Perler: So for parents who are starting with younger kids really understand sleep hygiene and be just super consistent and

Patty Lemur: Yep. And the,

Seth Perler: it's easier said than done. I'm sure

Patty Lemur: what

Seth Perler: it's easier said than done.

Patty Lemur: It's easier said than done. And for the older kids usually sometimes I think have to find something that's a really meaningful reward for them. And many of them really want to do this. I met too. They really want to be good. Hey, don't want to have these executive function problems and they would love to go to sleep. And what you're trying to do is retrain the whole nervous system and by having [inaudible] absolutely black and dark and in the room and having, Oh, uh, I'm cluttered room with no television, no computer, no electronic devices and natural bedding and all the different aspects of what helped people go to sleep, whether it's white noise or, or any kind of soft music. Um, you'll see, just keep searching for what works and, and kids need eight to 10 hours of sleep. And your teenagers who are trying to function on five to six or even seven hours of sleep are way behind the eight ball.

Patty Lemur: They are at such a disadvantage that when you are sleeping, you've got to go into deep rem sleep. It's the only time that your brain eels, it's your body, gets rid of toxins that you are able to detoxify and clean out the garbage. That's when the garbage men come when you're asleep. So sleep is a major, major thing that gets you to the place with the threshold where you need to be. So that I, and I, I wonder sometimes, you know, for kids who look like they have attention deficit disorder or that really struggle with executive function, like I talk about the basic sleep nutrition exercise. Like if I had a magic wand, I would start with that. But to get the buy in from the family, to get the parents to take the t v out of their room because the kid's going to say, well why do you have one?

Patty Lemur: And I can't why but this whole, but it's a very complicated issue. It's complicated. And our parents, those things already. Yeah, yeah, yeah. It's, it's a very cultural, it is. Okay. That's huge. And food is huge. And let's get to screen time next to that one. So that was the second one on your list. So we go from the sleep deprivation. Obviously we, we, it's hard but we learned what sleep hygiene is. We really work, what was the word you used? Stalwart. Spell that. S t a l. W. A R. T. Stallworth you go at it stall, you're going to make it work. Nothing can convince you to give in. Okay. And that's number one. And then we get to

this screen time thing. So what are some of the key thoughts about screen time? Screen time should have a limit. 30 minutes Max and at least an hour in between those 30 minute time periods.

Patty Lemur: And I had a chance to figure out what enough is enough. An hour or two a day is a lot, but I an hour or two a day and for three or four 30 minutes sessions is not as dangerous and difficult to the brain as a long period of time. And let the child choose. It can, he can have 15, 20 minutes when he comes home from school, he can have, um, sometime first thing in the morning. Right? None within an hour of going to bed. No. I see you probably do two, two sides to the spectrum. I see families who, they just, uh, they're stalwart about this issue and it's just is no screen time

Seth Perler: during the week or there's this much and it's very structured and well thought out and they are determined to hold that boundary and there isn't much resistance around it because that's what's going on in family. But then I have families where I've had heard many, many, many families who will say that their kid will actually get violently angry if they can't get their screen time. Do you have any advice for some of those families who are starting and there so much resistance?

Patty Lemur: Yeah, I think you've got to get buy in somehow. And what's Buy-in by that? The child is willing to work with you and I'm, I'm not beyond bribery. What is meaningful for him to comply? What, what is worth it for him to comply? Um, something you buy him, something you do together with him, a trip. Uh, um,

Seth Perler: but they have to, they have to have some teeth in the game.

Patty Lemur: They right. And I completely agree with you with hey, has to have a reason to make a change. And if they don't want to buy in and it's not important to them, you will never win. You'll, you'll never be able to change it. Okay. And it has to have consequences. What, what are the consequences of um, not complying with this and for kids, for kids over six, seven, eight, you can be pretty rational. You can show them research on this. What screen time does to your brain, um, what um, lack of sleep does to your brain. Yeah. Three days with not enough sleep. You become psychotic three days without food. You're, you're, you come live. But you cannot live three days without sleep. And kids don't want to be bad. They don't want to be psychotic, they want to do well and they want to make parents happy and make them love them. And the anger is, is that themselves? It's that the world, you know, it's not, it's not you. Life isn't fair as as they feel better as they're eating better, as they're sleeping better, as they're doing better in school, it will build, it does build and they gain more confidence and they see the results of their hard work.

Seth Perler: And then how about food and environmental sensitivities? What is an environmental for a parent who's never heard of that, and how does food fit into that?

Patty Lemur: So



Patty Lemur: food, the whole question is what is food? Are Our goldfish crackers and cheese doodles and mountain dew food? They're not. Yeah, they're poison. They're chemicals. They affect the way the brain functions. And if you have parents who are buying this junk and eating it themselves, they're going to have, you're going to have a hard time convincing them that it does anything wrong, bad to their kids. But if you ever look at a bottle of mountain dew, it has 70 something grams of sugar in it. That's like wick would pay. And B, if you eat something with MSG in it, the child, it affects the, the visual cortex. The child can't pay attention. In some cases it affects digestion. And then the body again is putting its energy into digestion. So we want people to eat real food.

Seth Perler: So what about a parent who is in a community where there really isn't a lot of great food around and everywhere they go, all the restaurants are fast food restaurants and all of the media that they're seeing are soda pop commercials and this and that. Um, if they're pretty new to like hearing this kind of concept. Do you have any tips for them?

Patty Lemur: Well, no, a lot of really good programs now in the schools and in the community that talk about what is real food communities are building gardens, community gardens. We're in the summer now. When you're, um, this summit is in the middle of the highest harvest time. Go to a farmer's market. I have four farmer's markets within five minutes of my house, four days a week. Encourage parents to go to these farmer's markets. And by that the copious amount of fruits and vegetables that are there now, they can freeze them, they can be hydrate them, they can cook them, serve them, eat them. And nobody's gonna love Kale the first time they try it. But there's so many ways of using Kale now and places like trader Joe's and all these, which are not expensive. Grocery stores are now carrying amazing products. I just bought a Broccoli and Kale pizza crust, the trader Joe's mates. That's out wages, cauliflower pizza crust.

Seth Perler: And when you have a kid that says like, I hate vegetables, I won't eat them. Haven't any, any thoughts on that?

Patty Lemur: All right, I'll pay. I'll pay you. Um, I'll pay you a dollar for, for every bite of cauliflower you eat. I'll pay you 20 cents, 10 cents. Whatever's in your budget for every bite a cauliflower,

Seth Perler: just get it started cause the Palette

Patty Lemur: and he may just be able to smell it. He may just even be able to be at the table with it without barfing for the first couple of weeks. He may not be able to get it in his mouth. He may just have to be in the same room with it at first.

Seth Perler: I will say I have one teenager that I've been working with for a few years. He's, uh, the families like a close friend now. Um, and he, uh, last year he, he, he like eats a lot of Taco bell is his thing, but he's says I hate vegetables. I hate vegetables. I always bring all these weird salads in. Cause that's what I like. And he, he actually changed this year, by the end of the year I'd be like, do you want some? And he'd be like, yeah, but

Patty Lemur: I once saw a probation officer with hardened criminals who were coming to him on probation and on his desk he had a Vitamix with green smoothie and the vitamins and these guys on probation were looking at him like, you gotta be kidding me and I am not drinking that green stuff. And in a couple of weeks he had him tasting it and then they actually liked it and then they started feeling better. And it's, it's amazing the progress you can make if you're willing to stick with it.

Seth Perler: And you, you mentioned environmental sensitivities. Can you tell us three environmental sensitivities? What does that mean?

Patty Lemur: Well, one of my first experiences with an environmental sensitivity was a mother who's kindergartener. W started acting crazy and he was a pretty good kid who was not a behavior problem. And the teacher sent, started sending notes home and saying your child is having outbursts. And the mother went into the class to observe to see what was going on and she noticed that there was a new rug in the, in the classroom. And she said to the teacher, when did this arrive? And she said, oh a couple weeks ago. And she said, can we take the rug out and see with if the behavior changes? And they took out the rug and the child had no more behavioral issues and they put the rug back and they started acting out again. So the rug was off gassing whatever chemicals on the rug where now in the classroom and the child re nervous system reacted to this little rug. And so that's not that uncommon. And there are also kids who react to mold. Another one of my cases was a girl whose classroom moved to the basement of the school and the basement of the school was moldy and she started having terrible behavior problems and then she didn't have them at home and she hadn't had them before. And we had a mold evaluation done. And sure enough there was mold.

Seth Perler: So offgassing can happen from carpets, paints, um, nope.

Patty Lemur: Mitre any kind of Newfoundland.

Seth Perler: So it's Ah, it's, it's letting off. It's just been produced in a factory and it's letting off all of these toxins. Then you have your mold, your environmental molds, which can't be seen. I had a student who had a mold in his head for a long time and they really struggled to work on that. But here in boulder we had a flood and a lot of houses started having mold issues and their basement is flooded and that's when his sir. So molds, I'm offgassing. Is there one other, um, sensitivity?

Patty Lemur: Well, yes, the, the whole environment, the outdoors. You know, when you, when you have Paulin upon the high pollen season, they give us an appalling count of what the pollen is. Many of our kids in the fall and the spring, they have the pollen and in the wit in the fall, they have, as the leaves start, I'm dying. That's also affects many, many of our kids.

Seth Perler: And again, from what you said before, like these things can be invisible. We might not even notice that that's what's causing this, that that's changing the threshold for them to be able to, to function well.

Patty Lemur: Right. Okay. And so many, many schools have all kinds of, um, problems because the windows are closed all the time. And they say that even as with the fallen and the mold outside, that the outdoor air is healthier than indoor air and in some of the schools, so you never know what it might be in a school. It might be new tile, it might be, um, as I said, new cabinet tree, anything that's new has chemicals in it. Okay.

Seth Perler: And let's start looking at what is sensory processing.

Patty Lemur: So your body is constantly reacting to every saying that is in your environment. So with all the senses, you know, if you have a new baby that is can be calm by movement, by rocking, by touch and by warm. But if you run the vacuum cleaner in the baby's room, doesn't do a whole lot to the baby, doesn't wake them up, a baby can sleep in a dark room or a light room. The visual aspects of the baby's room does it matter? So we have those early senses which are developing in a young child and at about four or five we switch over from having control over our early senses. They're paying more attention to what's called our far senses once it happened on our body or near senses. And the ones out there in the environment, hearing and vision are the four senses. So we want kids to develop and go to not go to school, not go to kindergarten until they have control over their near senses because we want them to sit still and pay attention and pay attention beans. Looking at the teacher, looking at the environment and being able to pay attention to specific things and listening to and giving meaning to what you hear. And so occupational therapists often work with our kids who are younger to help them organize some of those senses. And then speech language therapists and vision therapists work with kids. You were having more auditory processing and visual problems.

Seth Perler: So Patty, one of the things that I see is like the, the more I get to know for example, about ots or uh, or vision therapy, the more I sit there and say, why I was a teacher for 12 years. I taught multiple grades in multiple schools. Why did I never hear this? Or why wasn't? And it seems to me like this is so important as I learned more about it, that it seems like this should be at really a part of, of everybody's school. Like it shouldn't just be the child who's having severe difficulties that to get a valuable way to bite it and OT and get services. But it seems like a need that, um, I guess some kids probably develop it by chance better or I don't know, but why, why, why? Uh,

Patty Lemur: since that and what happened in the the olden days before we had so many safety issues [inaudible] the kids got a lot of experiences with their, near when I was little, we, we played in the dirt, we went out in the woods, we walked around the neighborhood, we rode our bikes, we went and touched and moved all the time. Hits aren't getting those experiences anymore. And these have been replaced with sedentary experiences, especially those with video games. And with screen-time a watch television, they have electronic babysitters. And so kids have play dates. You know, we met, we had play dates, we played and we'd got in fights and we got out of fights. We didn't have cell phones. We, my parents didn't know where we were. We were in the neighborhood somewhere and they knew we'd come back [inaudible] so it's not safe to do that anymore. So because of safety concerns, we contain our children and they don't get the

sensory experiences. So we need occupational therapy to give it to them in a controlled environment. So for the parent, what,

Seth Perler: so for the parent that's watching, that's sitting there going, Whoa, how do I even know if I should go down this rabbit hole? Where do they sit?

Patty Lemur: Well, they can ask the teacher. Every school has an occupational therapist. Occupational therapy is what's called a related service. So the occupational therapist service is related to some kind of disability. So if the child has an IEP or if he has an a five oh four accommodation plan or if he has some issues, then he can get an occupational therapy evaluation for free in the school system. Now a school based occupational therapist is going to look for scissors skills and is the child able to find his way around the building? He's going to look at some gross motor skills as they're related to school. But this occupational therapists might not pick up higher problematic sensory issues. Like if a child is having, um, visual perceptual problems and I want to get into some vision issues or if a child's having handwriting problems, the OT will, will notice that but may or may not get the visual component of it. So it may require that they go outside the school to a private person to do a private evaluation which then can be taken to the school.

Seth Perler: Okay. Is there a good um, website or book or anything that, that you like for sensory type things that people can get started with?

Patty Lemur: Well, articles, I, I founded an organization, the nine B's before there was an internet called developmental delay resources. And I merged PDR into another organization called epidemic answers in 2013. And so the epidemic answers website epidemic answers for all, but or has dozens of articles on sensory processing where you can look up, um, how your touch and movement and vision and auditory effect behavior and learning and attention. Okay. Now let's get into the vision. So this is one of your biggest areas that you like to dive into. It's my pet pet project. Why? Why is it so important? Why don't we know about it? Well, first of all, it was profound for me. He'll learn the division and eyesight were different things. I W I've worn glasses since I was sick and so aye understood when something wasn't clear, I couldn't read it and I certainly couldn't understand it, but I learned that that's just eyesight.

Patty Lemur: When you say somebody has vision that Steve Jobs had vision, that um, a head of an organization has vision to move that organization into the future. You're not talking about the prescription in his glasses. You're talking about something cognitive. You're talking about an interaction between the two eyes together and those eyes and the brain. So, oh, I'm going to different aspects of executive function require efficient vision and efficient vision is not easily distinguishable. When you look at me and I look at you, we can't tell whether either of us is using both eyes. I may be blind in one eye, but if both eyes look like they're looking at you, you can't tell me whether my brain is receiving information from both of those eyes in order to have depth perception in order to remember where something is in space, those two eyes have to work together and send the brain inflammation at exactly the same moment. So that, that that brain gets one visual image. If the eyes are working independently or not insane, you get

clip, click, clip, quit, quit in the brain is, oh my God, what's going on? What am I going to listen to do? I listened to the left side. Do I listened to the right eye? How do I know what I should put into my memory?

Seth Perler: So is that the nature of the problem is that the brain hasn't, uh, learned how to get the eyes to work in sync.

Patty Lemur: Essentially the brain hasn't learned is really an important line because vision is learned and how do you learn how to use your eyes together through movement activities. Oh, stay movement activities that we have suppressed, but we have limited because of safety issues. So as a child, hello had deprivation in his movement or whatever reasons because he was in an orphanage because um, mama was a safety, um, compulsive about safety. Don't touch that. Don't go over there. Kids on leashes, you've seen kids on leashes and [inaudible] in airports, so they don't, if a kid is a runner, you know, sometimes for safety reasons it's necessary. But in, if a kid's been in a car seat too long, if he's been in a backpack too long, he's been in these bumbo chairs that are so popular now, they're not getting their movement experiences and movement and vision are like peanut butter and Jelly.

Patty Lemur: When you move in space, your eyes move with your body and at first your body moves where it goes and your eyes go with it. So little kids just move arbitrarily through space and in kindergarten, nursery school, okay, here I am in the block corner, I'm going to play with blocks. But as you get older, you start using your vision to direct your movement. So by the time a kid goes to kindergarten, he might come into the room and take visual inventory. And see there's the block corner, there's the trucks and there's where I paint and I want to go to the block corner. So his eyes have directed him. The block corner that's very, very different. And the kid who is not taking visual inventory and whose body is just moving and he ends up the blog. Those kids you work with, those executive function dysfunction kids, many of them are still at a motor visual level. They haven't even learned how to use their vision through their experiences. So we have that. Yeah. And do some kind of therapy with them. And first of all we have to do an evaluation. The C are their eyes working together? Are those two eyes sending the brain the same message at the same time?

Seth Perler: How does that parent or teacher know if the kid should even get an evaluation in the first place? Great question.

Patty Lemur: So sometimes it's obvious. Sometimes the child has an obvious I turn, which is has a fancy name. It's called a strabismus. So when you're ha, you can see that in the child that the eyes are very visible. Yeah. That is visible. That child cannot be by knock Cuellar. That child is not by not fueler. His brain is getting mixed messages. It may not even get a message from one of the eyes. The brain may say to that one, I shut up. I'm not listening to you. Then he has what's called a lazy eye. That child may have had surgery on that turn die and that I may look straight, but the two eyes may not be working together. Any child who is having any kind of learning organizational behavioral issues should have a very complete, let's call it a developmental vision exam, which includes much more than just eyesight,

Seth Perler: but those don't just happen at schools, right?

Patty Lemur: No. Most schools give an eyesight evaluation. Can you see the on the chart at 20 feet that doesn't tell you is the and the child read it. It can tell you only that he recognizes what it looks like.

Seth Perler: Right, right. So parent would have to go find a vision therapist or somebody

Patty Lemur: are, we have three kinds of eye doctors. We have ophthalmologists who are mds. They are trained as doctors who's training as to look at pet a j so if you have an eye disease or if you have an eye injury, that's where you want to go. But an optometrist is, has an undergraduate degree in some science and then four years, just like an MD, but he is four years or graduate school and a school of optometry are only four eyes. So he studies eyes for four years and he studies the eyes and relationship to the whole body, the eyes in relationship to the brain, the eyes in relationship to movement. And so he's looking at how we use our eyes at every distance at every eight inches, which is a new field of new visual field. And then some optometrists go beyond that and they learn how to do vision therapy.

Patty Lemur: And that's a special kind of developmental optometrist. And I can tell parents how to find one in their area. They can go to a website which is c like Charlie O, like I'm in the like victory and d like dog c o v D. Dot Org and you if there's a big sign there that says find a doctor and you put in your address and it comes up with a trained doctor in your area. Well some of these doctors, so if the school system is very enlightened, actually in California, um, okay, some of these doctors are working with the school systems and the less enlightened states you might have to pay for this. Or if you're lucky your insurance will cover it. Often though this is out of pocket. But if your child is having visual issues that are obvious, it's you can fight to get your insurance to pay for it very often.

Patty Lemur: How do you help the visual issues? So you, you do these visual therapy activities [inaudible] remember we started with motor, that's how vision develops through movement. So some of them vision therapy is movement activities. It looks like you're moving through space. So you're using your body and your eyes together. It might start with someone with severe autism, with just awareness, getting the child to pay attention to something as simple as a scarf that you throw up in the air and to ask the child to catch it. A scarf is slowly moving. It's not like a ball, so it's, it's intriguing to a young child and you might work with bean bags or balls and you might do it. And very simple circumstances where you ask the child to catch a bean bag at a short distance, afford her too. Then you might ask him to catch it with one hand or with the other hand or up here or down here and you keep adding load factors to what the child has to do. Catch him being bed while on a balance board, catch a bean bed and every time you catch it, say a number one, two, three or, and now we're going to do it. We're going to say backwards, count backwards from 10 hen, nine eight and then you can ask them to do it with the alphabet or the alphabet backwards so you can keep making it harder and harder. So that the body is thinking about the cognitive aspect of it and not being able to focus on the motor visual aspect of it.

Seth Perler: Okay. So, so I'll start getting to some wrap up questions. Okay.

Patty Lemur: Can I say one more thing about the bulls in therapy? Are these optometrist also use lenses and prism therapeutically? An ophthalmologist corrects eyesight, which is putting crutches on your eyes, which is what I've had. I'm wearing contacts now, but you correct the eyesight by putting crutches on them, which is what a lot of tutoring and therapy does. We [inaudible] help the child accommodate we, we support the child. But what vision therapy does is it works from the inside out. And so we teach the eyes to work together and sometimes they use lenses and prisms therapeutically. They're not correcting anything. They're disrupting a inefficient visual system so that the brain has to reorganize and re-establish a more efficient way of seeing.

Seth Perler: Okay. Have you heard about kids who get tired from reading? Does is that related?

Patty Lemur: Of course. And those are kids with inefficient vision. Their eye movements are not efficient and there they get tired because they're trying the whole, by knock your vision. It's like any of them

Seth Perler: working really over time to to accomplish this task that it shouldn't be working so hard to do. Right, okay.

Patty Lemur: Sometimes we use lenses with them. We call them learning lenses that take some of the stress off. [inaudible] more efficient is to teach to strengthen those muscles so that those eyes can continuously send good, good messages to the brain. Any child who gets super tired when he's reading or working, that's telling you that he's visually and efficient. Okay.

Seth Perler: All right, patty, so you have a child at this threshold there. They're beyond their threshold. They're using all this energy. You start working with them, you to figure out that there might be some offgassing you deal with that there might be some vision, some sensory issues, some sensitivities and you really work with the family and you help chip away at these things and you've taken, I don't know what, three months, six months, a year, two years, and have really seen a change. When you see a change like this, does it, does it help executive function? Um, or does it help?

Patty Lemur: Absolutely. That was a redundant question. We're gonna see the same gradual changes where the executive function, you're going to sign that. It's that homework that done the little homework assignment that should have taken 10 minutes that you just spent an hour on. If the child can now do it in 15 minutes and you're thrilled because you've taken off those load factors. Yeah. Um, released some inner she some energy and that child that he has been spending on working with this inefficient visual system and digestion and his neurological system is trying to deal with all those load factors.

Seth Perler: And you just mentioned the word ci, which you haven't mentioned earlier in this, in this talk, but, um, yeah, but I'm, I what I'm asking is, are there any other alternative approaches that you want to mention on this talk?

Patty Lemur: Well, I w I wrote a book called outsmarting autism. Um, the book originally came out in 2014 and um, it was a best seller and I recently updated it and expanded it and it came out in March, 2019 and this book has over 50 alternative approaches to help a child learn and behave and maximize his potential better. And the book is hierarchical. It takes you from the biology of autism through some of the sensory issues and autism vision and then into some of the, um, techniques that a tutor or a coach would use. Right? I always want to look at those foundational skills. So there's reflex integration. Um, we could, that's a whole chapter in the book. Babies are born with over a hundred different reflexes. Our environmental experiences limit those reflexes in some kids. So that's another therapy, craniosacral therapy, chiropractic, any kind of these hands on bodyworks therapies are amazing for many of our kids. And the book outlines all of these different therapies and gives, um, websites and, and people that you can contact and references and everything is scientifically based. It all has research behind it. This is not hocus pocus and Santa Claus and the Easter Bunny. This is stuff that is, that is really has good efficacy.

Seth Perler: I respond really well to synchro cranial and I don't know why, but that's something, it just, when, when you're sitting there on the table, it seems so a silly but right.

Patty Lemur: Like nothing's happening. Right?

Seth Perler: But I, yeah, but it's, it really helps.

Patty Lemur: It does. And it helps a lot of our kids, especially those who've had some kind of physical trauma, whether it's concussions from their sports or whether they had a birth trauma or whether they have had to much containment and not enough motor experiences.

Seth Perler: All right. So I got two more questions for you today.

Patty Lemur: Okay.

Seth Perler: The first one is this, what specific actions can parents take this week to get started implementing some of your purchase?

Patty Lemur: That's a great question. I would say look at one aspect of your lifestyle that you think might be problematic, whether it's the sleep, but the screen time or food. Those are the three biggies. And see if there are, um, things that you can do to help make it more healthy. And, and pick one and, and don't make a huge hurdle. And as I said, for some of these kids and vegetables, some of these kids in and Brussels sprouts that maybe that they, the first thing that can just be on the table or in the same room, they can't get it near their nose or their mouth and you want to just maybe have them that do that for a week and then maybe just smell it or stick their tongue on it, but start thinking of ways that you can make the Diet Healthier, the screen time diminish and have big motor activities go on a bike ride. Now the weather's so beautiful. Take a hike, go swimming, um, go camping. Do something that is more healthy and, and how you'll see the



benefits. You'll see that there'll be pooping better, that they'll be sleeping better. We want these kids to be exercised and exhausted so that they can fall asleep.

Seth Perler: Awesome. I like, because we've gone into so many things beneath the iceberg that helps narrow it. Just pick one little thing chipping away.

Patty Lemur: Yeah. Mike, if they go to my book and the book's available on Amazon, it's also available on my website, which is Patricia Lemmer.com I. E m, e R,

Seth Perler: and we'll link to that

Patty Lemur: my last name. And it's outsmarting autism has its own website. They, it also has a Facebook page that you can like the book is available as a kindle. You can get it electronically and so there are lots of ways to look in this book and find ideas of what you can do. The book has an amazing index. I had a fantastic indexer. It's over 40 pages, so nobody's going to read this 600 page book from start to finish. But there they will. I'm fine. It is a wealth of information and it will be a reference book from prenatal, the ruined notes. I have a lot of information in it on adults and working with adults who, especially those with autism, but just because autism's in the title don't be dissuaded. This book could be outsmarting ADHD, it could even be outsmarting executive function issues.

Seth Perler: Okay, awesome. And then the final question is, and this has been my favorite question because the answers have been so fun, but from your heart to the parents that are watching, you've got these parents who are really concerned and they're on this because they're really looking for answers. But from your heart to these parents, what's the most important takeaway you hope they leave with right now?

Patty Lemur: That I know you're doing your best and that feeling guilty that you might've missed something or that your child is having these issues. This is not worth your energy. This is not your fault. You didn't know any better. You're doing the best you can and I know you're doing the best you can and assess those. You're doing the best you can and we just want to give you some new options to add to your tool chest. And I hope that you'll, you'll try some of these new ideas and I'm very confident that you will find that they will make your life, um, uh, more, um, pleasant ways to live with some of these kids who can be super difficult.

Seth Perler: Awesome. Thank you so much, patty. I'm really appreciative of your time.

Patty Lemur: It's been great, Seth. Thank you, and I appreciate you having me on and the opportunity to, to talk about these things about which I'm so passionate.

Seth Perler: All right. All right, parents, go take action. I'll see you in the next one.