Spoil Your Baby Ep 45 - Why Nasal Breathing is Essential for Early Development feat. Dr. Shereen Lim Transcript

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Introduction to airway health and early jaw development

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And I thought, how can we're not doing this more often for children? We're taught in dental school, you can do palate, expansion widened jaws aged seven to eight years.

But then typically when we refer patients to an orthodontist, they would be told, oh, we can watch and wait, let's just wait and, wait until age 12. Then we're taking out teeth to alleviate dental crowding and try to make the teeth straight with braces.

And I thought there has to be a better way. So that's when I decided to learn more about early interceptive orthotontics to modify children's jaw development.

Welcome to Spoil Your Baby podcast. I am so excited to connect myself and you all with Dr. Shireen Lim. Dr Lim is a dentist with a focus on airway health and early development, and is the author of Breathe, Sleep, Thrive, which I've got my own copy of right here, lots and lots to learn there.

So welcome. Thank you, Dr Lin, for being here. Yeah. Thanks very much for having me. I'm excited to be here. Wonderful. So let us get to know you a little bit.

How did you arrive in this world of breathe, sleep, thrive? Great. Yeah, so I've been a general dentist for 26 years, but I first became involved in snoring and sleep apnea through my husband's snore.

12, 13 years ago, I think it was. His snoring was really bothering me. I was so frustrated I wasn't able to get to sleep. So one day I just woke up in the middle of the night and I started researching dental sleep appliances because I had an understanding that you could have these dental appliances that would help alleviate snorring.

And I decided that I enroll in a program to learn all about these and help other spouses in the same. I came across research to suggest that because I was wondering, okay, we're making these dental devices, they bring the lower jaw forward.

How come we don't help children's jaws grow properly in this place?

How Dr. Lim entered dental sleep medicine

And so in that course, I found research to suggest that children that have palate expansion, it could help reduce their snoring and alleviate obstructive sleep apnea.

And I thought, how come we're not doing this more often for children? We're taught in dental school, you can do palate, expansion widened jaws, age seven to eight years.

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And I thought there has to be a better way. Um, and so that's when I decided to learn more about early interceptive orthotontics to, uh, modify children's jaw development.

So in 2014, I went to a conference where I met Dr. Christian Gemeno, he's a pioneer in dental sleep medicine or sleep He helped to discover obstructive sleep apnea, and I told him his research on palliative expansion in children.

It really has inspired me to learn more how to offer this to children, And he said to me, if you're doing palliate expansion, you are too weight. and I had no idea what that meant.

It was like over 10 years ago, but I soon came to realize form follows function. If the jaws are not growing properly, there's some oral dysfunction where the muscles have not worked well during sucking, swallowing and breathing in the earliest years of life.

And so that's where my attention is now more focused on how can we get children's tongue and other muscles to work well early on so we can promote better jaw development.

Wonderful, wonderful. So when we talk about airway health, I think we're always, in my world, connecting it with sleep and brain development and cognitive development.

It's all interrelated. But often we have families whose babies are waking up very frequently. Um, I actually experienced this as a young baby as well.

I think there was many, there were many reasons why I woke up a lot, but one of them definitely was airway health. So for parents who've just sort of never heard of it, you know, what are we talking about when we say airway health?

I think you kind of touched on it a little bit, but tell us a bit more. Yeah, so air way of health is really about promoting optimal breathing as early as possible.

And what that means is nasal breathing 24 seven. So we're designed to breathe through our nose. and really having good airway development, especially in the early years of life when the jaw structures are growing.

So we want optimal jaw development. And because the jaws are influenced by the oral function, we wanna promote good oral functioning as well. That means really good tongue suction during sucking, swallowing and breathing, and promoting good chewing habits aswell.

Yeah, well, so important. And I always want parents to know the information, but not be scared about it too, because it's easy to miss. Hopefully people hear this interview and hear and come across this information.

But sometimes it does happen later. Given that, can you tell us more about how airway development does shape a child's sleep and mood and behavior and cognition and things like that?

Yeah, definitely. I mean, we are supposed to breathe through our nose, apart from warming, cleaning and filtering and humidifying the air before it enters our lungs.

When we close our mouth, and when we have our tongue such into the roof of our mouths, it's the optimal breathing. It keeps our airway open. So for instance, if we try to snore with our snore with our mouth closed, it's easier to snort with your mouth open.

And this is when we're going to get disruptions in our airflow and have snoring, which is leading to more fragmented or unrestored sleep. Or down the line, if it is unaddressed, can become obstructive sleep apnea, when you have complete pauses in your breathing that can last for seconds and can be associated with oxygen deprivation.

And so when we have snoring or mouth breathing, it does lead to more unrestorative sleep. And we know that

there's a lot of research to support that snorring is linked to increased risk of behavioral and learning problems in children.

You know, the brain, as we known, is growing the most in the first three years of life.

What airway health means for breathing and sleep

That's when children need the more restorative of sleep and apart from the hours of sleeping, we need to check that breathing quality during sleep as well.

So yes, we have those type of issues as well. So really promoting airway health or that nasal breathing and good jaw and air way development, it's really the foundation for thriving health and vitality across the ages as Yeah, I ended up having obstructive sleep apnea and having my tonsils and adenoids removed.

But we were talking a little bit before that, that I needed a bit more than that too. If I was born now I might have gotten even more care, which is important that our kids are getting better care now.

What you know, what can parents do to promote airway health? We'll talk about what are the signs of if it's not going well, but before that, What are some things that we can do for our little ones to promoted?

Yeah. I mean, so airways health being there is a breathing. We want to make sure that children can grow up with their mouth closed and just pay attention to that.

They bring through their nose from the earliest years of life. So how do we promote that? Um, yeah, obviously, nasal hygiene, nasal sprays, non-medicated saline spray to keep that clear.

We also wanna make sure that the oral muscles are working really well, because that will promote good jaw development. And really we have to understand that, the jaws are our outer borders of the airway.

So when you said in childhood, you had the adenoids and tonsils removed, a lot of people think that to address the area, we had to go to an ear, nose and throat specialist to remove tissue outside of their nose that could be blocking it.

But there are actually, it's a multifactorial issue. It's not just what's inside the airway, but we have to look at the outer borders of the area. How big is that air way?

So that top drawer is really the palate. it is the floor of nose. So we know that when we widen the palette, it can increase nasal airflow or it makes air flow smoother and it make more space for the tongue so that the time can rest more properly on the roof of mouth and that will also help to keep your throat open during sleep.

So that the jaws, the position of the jaw, we want those jaws forward. If they're more back, it's a more pinched airway as well. And so your question being, how can we promote good airways health?

And that is really to consider that good breathing is not just about what's inside the nose and the throat, but it is about the job structures and making sure that jaw structures are going well, and if we wanted those jaw structure to grow well the things that we can modify Number one is breastfeeding.

Breastfeeding is really nature's palette expander when we have breast feeding and optimal latch. That tongue is required to suction to the roof of the mouth, you know, and it extracts the milk through a vacuum.

So as the tongue drops down, that's how milk is transferred most efficiently. And it requires a complex coordination muscles that brings that jaw, lower jaw back and forth.

It really develops the jaws forward and wide. So breastfeeding is really important and understanding optimal latch mechanics, because sometimes you can breastfeed without pain, with good weight gain.

But if babies are getting a shallow latch and they're using their lips and not really using the tongue correctly, that will not promote the full jaw development.

And then we look at things like pacifier use. If we use pacifiers, they'll actually lower the tone posture. It keeps the tongue down so that tongue is not able to provide that expanse of force to develop the palate well, but it also increases sucking forces, which actually collapse the jaw structure.

So it changes the whole swallow pattern. And the impact is related to the frequency, intensity and duration of pacifier use. A lot of parents might think, I just use the pacify at nighttime only.

However, babies are sleeping. That can create considerable impact. We know that pacifier use is related to orthodontic problems at age four. But that really is a reflection of poor jaw development.

Breastfeeding, pacifiers, and oral function

So that's, you know, looking at the old function in that way, what else we need to promote good jaw chewing as well. A lot of babies You know, we introduce purees or sippy pouches, not sippy cups and the pouch food where we're not really promoting good jaw activity and that's more sucking again.

So that is constricting the jaw development. These are the things that we need to pay attention to, making sure that children have clear noses. Their muscles are developing properly.

And in that first year of life, they're the most modifiable things that we can pay attention to. And if parents cannot breastfeed for any reason, just to recognize, I think our role is really to educate people on the mechanical benefits of breastfeeding.

There are always reasons why some people can't do it or choose not to do, but letting them know that it's multifactorial, there's other options that can do and these are the things we need to focus on.

But yeah, I do think, you know, a lot of babies that are relying on pacifier use, we have to ask why are they relying it? And I find that I'm involved in tongue tie management.

So a of the time when children have tongue-tie, they're not feeding optimally. They are sucking a a air, sucking and swallowing a and they may have reflux-like symptoms.

And so sometimes they've got a wind and that pacify can really help comfort them. before medicating children for reflux adult medications that aren't particularly proven, we need to make sure that they're getting optimal latch and they not swallowing air as well.

Amazing, yeah. I think it's so important. And I love what you said of like the palate is part of the sinuses or part, did you say the lower part the nose?

Yeah, the floor of the nose. The floor the of nose, yes. And that's a beautiful thing to think about. Yeah. I don't think a lot of people know that that is one of benefits of breastfeeding.

Absolutely. Also, I will always say too, breast feeding for at least two years as well, if you can, right? Because the palate is growing that entire time.

Is that right. I, you know, like anthropologists who have really looked at prehistoric skulls or pre-industrial skull, have found that they were very well developed.

The jaws were well expanded and forward. And that is linked partly to the increased chewing required because our food was less processed, but also breastfeeding as well.

So what they found through fossil records is that babies were exclusively breastfed for six months and many were

mixed fed until three months. And so that's one of the reasons why the jaws aren't developing as strongly.

Yeah, that's really good to know. Are there some, are there bottle, like bottle nipples that are better for developing the palette? Or are they all sort of similar?

Yeah. I don't really think that it's within my scope to comment on. Okay. And I'm not really familiar, I usually would refer to a lactation consultants and there are things like pace bidding, making sure that babies are extracting it in, you know, not overdoing the compensations and not oversucking and yeah.

No, I really will tell all families, regardless of how they're feeding their baby, breast bottle, to see a lactation consultant at some point for this reason and many others as well.

But I had never heard that if a baby was functioning at the breast well enough, that there could still be a latch issue. So that's really even more evidence for people to have a Lactation Consultant come over and take a look and see.

What's going on? Yeah, absolutely. Even myself, before I got into this, I have two children who are now 18 and 15. But I breastfed both of them. Now that I've been involved in this I can actually realize they had two very different problems where they were not breastfeeding well.

So one of the, well, mastitis, some sort of soreness, And she would feed for like 30 minutes on each side. And I thought that was quite normal. Whereas my other one would fade very quickly.

I felt, oh, she's a very efficient feeder and she always needed to be held. Then when I looked back at baby photos of her, I've gone, Oh my gosh, he has all this white milk coating on her tongue, which actually means that she was not effectively draining the milk with her time.

And yeah, she was one of those children that grew up and she could not swallow her food. She would eat her and the meat would just stay in the mouth and be pout, just spit out.

So it affects their swallowing and that becomes other problems as they grow older. Yeah. I was recently told that I also have a tongue tie and I have so much pain here in my neck.

And it was a very brief, I had to do a full exam, but they did a brief one and they were like, oh yeah, you probably have neck pain. It was like yes, because my tongue is fully compensating.

My other muscles in neck and head are compensated for the tongue not doing the right thing. Such an interesting, interesting field. And as I shared with you too, it's like everyone in my family's going, I don't know, get this checked out for all kinds of reasons.

Wonderful. So, you talk about sleep and breathing as family health issues, not just children's issues. How can this affect the whole family system? Yeah, well, when a child doesn't get good sleep, quite often, the parent doesn' get sleep.

That's not great for anyone. And you know, I think for infants, it can really definitely affect that attachment, that early attachment and how attuned a parent is able to be to their child.

Yeah, so much more challenging. And then as children grow older, It becomes the behavioral problems, like children that aren't able regulate well, and they may be more prone to tantrums or behavioral difficulties, which then take up a lot of attention And that affects other children in the family as well.

Family impacts and warning signs of poor airway health

Or for instance, I had one mom who her child was quite sick and she had to take off so much time to look after her children who would always be not able to go to school.

And she has to give up her studies and wasn't really able to complete her own life well. So yes, there's a lot of different ways in a way when we treat children, you know, we're treating the entire family.

And like last week, I had a mom who, every time she calls the Our team feels a little bit, it is hard to please this lady. She's a bit more grumpy and bussy.

But when I spoke to her, she just said, look, my child is not sleeping well. And I'm getting told his attention is lacking in school, and people aren't listening to me.

He goes to sleep for normal amounts of time. Yeah. That he's just not breathing well, It stresses me out, but it makes me nasty to people when I don't want to be nasty.

So when we treat a child, we're treating that whole family, about how that mom can shop in the world for, you know, other people as well. Such an important way to see it that way.

Yeah, absolutely. So for our parents listening now wondering, how is my child's hair? What are some kind of red flags? what kind things should parents be looking for before they come and see a dentist?

Yeah, absolutely. So I think a lot of time parents are really happy. I say my child is a really good sleeper if they don't need to wake up for their child during the night.

And they're often not really aware of what their children is actually doing. But I Think it's really important for parents to recognize that when a child sleeping, we want them to be silent.

so any sound is signal that there may be difficulties in airflow. Yeah. and we want them to have their mouth closed breathing through their nose and be looking relatively peaceful.

So we don't really want to tossing and turning and sweating because they could all be signs that a child is not getting good restful sleep or working harder to breathe.

The key red flags as mouth breathing, snoring, teeth grinding, bedwetting, you know, tossing, turning, sweating, drooling any nightmares or terrors, frequent ones.

Sometimes children will go into their parents' room and like want to sleep there. And a lot of the time it is actually because they've woken up and sometimes it could be a breathing issue and these children may be more prone to going into the parents rooms.

Yeah. When a child wakes up from sleep, we want them to be in a relatively good mood, not too grumpy, and they should feel rested. And during the daytime, you know, things like difficulties with emotional regulation, poor attention and concentration, or even anxiety and separation anxiety even.

I've seen these symptoms improve when children can actually get good quality sleep. Yeah, that makes sense too. If they're restored and more regulated, then they can handle challenges much better.

Um, That's great. Yeah. So one other one I see in like my little ones are babies who want to sleep like on their parents because the angle is, is more optimal for them to breathe or they sleep with their heads.

That sort of CPR position where we're thrusting our jaw forward or tilting our head back, or even stomach sleeping. When a child is sleeping on their stomach, I'm always thinking, what is their tongue doing?

Because if the tongue is properly resting, lightly suctioned to the roof of the mouth, that is when we're going to get our optimal breathing. Whereas if a tongue if low, it's more likely to collapse into the back of throat if we are sleeping and our muscles are more floppy and relaxed and we were on our back.

But stomach's sleeping, And some of the little infants that are stomach sleeping with their bum in the air, that can

actually be quite protective against base of tongue obstruction of airway.

Yeah. So sometimes I have parents, we ask them in our consults, any mouth breathing, snoring, a lot of things that you mentioned, the positions. And it's impossible to have your mouth open with your tongue up.

Because when your tongues up, you cannot breathe through your mouths. But for our little ones, sometimes if their mouths are closed, I'll still ask the parents gently open their mouth to see if the tongue…

position is there. And sometimes that's the case too, right? The mouth is closed, but the tongue is not sealed and suctioned. So they probably need some help as well.

If parents do see any of these things that you've mentioned, they're listening to this and they are concerned, where should they go for help? What's, the best place, what the people to see?

Yeah. Given that a lot of your audience has infants, I think it's great that there's a lots of sleep consultants that are really now less about sleep behavior and also considering feeding issues.

Because I do think that when we have poor feeding or gulping of air, that is really a common source of And so if there is any feeding difficulties or if their is gulping or intake of air, definitely see a lactation consultant.

And we know that, for instance, the one that I work with the most prominently, she actually gets quite a lot of referrals from sleep consultants. So it's fantastic to see people looking out for that.

Sometimes an ear, nose and throat specialist, if they're quite clogged up breathing, they may be an appropriate person to seek consult with. So they're probably the main people in infancy.

And then as children get older, I personally will see children from four years and above. Then we are looking more at the jaw structures and we're really assessing for the tongue function and how the muscles of the mouth are working.

Where to seek help and early intervention options

My functional therapist can actually help promote good oral function as well. But I do want to say sometimes, a lot of parents can really worry about it.

Sometimes it's really hard. There's that really difficult age from infancy through to four years old, which the options are quite limited. It's almost like ENT or, you know, if they don't do anything, people become stuck.

So you can see a speech pathologist who has training in feeding and do activities to get the mouth working better, making sure children are chewing and swallowing better.

But realistically, For a lot of kids, I do find that palate expansion or widening the upper jaw is a very central intervention that can shift a lotta things, making more room in the nasal passages and more for the tongue to allow things to function more effectively.

So I think one thing that parents can take home is that if we have a narrow palate, it is an airflow limitation and you don't have to wait until a child is 12, when all the teeth are crooked and take out teeth, you can actually do early intervention.

to modify that pallet and there's now a lot more pediatric dentists doing early intervention with pallette expansion. And is airway dentist, like looking for an air way dentist?

Is that something that people should look for or sort of? Yeah, you want to look a dentist who is specially trained, who has a special interest in airways health.

for sure. Yeah, and one of the key changes that has occurred in 2017, the American Dental Association, they issued a policy statement for the dentist role in airway conditions or sleep disturbed breathing.

And they suggest that all dentists should be involved in screening for these problems in children. they have a role to modify the airway to optimize breathing.

And so that is why more and more people are becoming on board and learning about it, but it still can be very difficult because it's not something that's routinely taught in dental school.

A lot of people have had to go and get extra learning to do it. So yes, it is quite difficult sometimes, that the listeners, your listeners now who have infants, hopefully there's a lot more change in the next four years.

Yeah, absolutely. Well, you've shared so many wonderful, wonderful pieces of the story with us, from prevention to detection, and then a plan to work with it, which is really, really wonderful.

So thank you so much for being here. Is there anything else that you'd like to share with? Yeah. I think really recognizing that airway health is so important.

When we have problems like obstructive sleep apnea and snoring, these really have their developmental origins in early childhood, in how the mouth is working, how their mouth growing.

And people who have infants are in the perfect position to be able to get educated and know what are all the opportunities. If we miss one opportunity, there's going to other opportunities, but the earlier we're aware of it, the more we can actually make good choices.

And that's what my book, Brief Sleep Thrive is about. It's really about letting parents know what are the red flags from breastfeeding and onwards to how the teeth are growing and where are there different treatment pathways as well.

Cause it's not always just one thing like ENT surgery that will cure a child. Yeah. It's so important. I feel like for our parents also to just have so much compassion for themselves as they go through any sort of journey looking into this, because like, as you said, if we didn't know that we could, you know, do an intervention two years ago, we now we know.

Right. And so… Absolutely. We as dentists, sorry. Sorry to interrupt you. You know we are still learning and every day I'm still realize that we're all doing the best that can.

Absolutely. I shouldn't have thought about saying goodbye without one more topic that had just popped into my head. One more prevention topic, that should at least comment on, are oral ties too, right?

So that also impacts tongue function and jaw development, palate development. Would that also fall under the category of make sure you see at IBCLC? Yes.

Very, very young. And also make that you understand that some are not attuned to a tongue tie. Yeah, because really, when it comes to tongue, tie, it's a very confusing topic.

I see people that have had these problems with feeding and air intake, and they have seen multiple professionals, you know, something like 20. And their total this problem is something that your child will grow out of, there's no tongue tied, or there is a time tie there, but it is not going to impact anything.

And what people often don't realize is we don' t get any training in Tang Chai. It's like we're dentists, we are all physicians, but we do n't get taught about it.

Tongue ties, specialist care, and closing resources

Speech pathologists don tt get told about that lactation consultants don nt to get talked about. So no one really gets proper assessment and training.

In this area. you have to go to someone who really does have a special interest. And often we develop this special interests because of our own experience with it.

So there are more and more people that have it, but recognizing that sometimes you may actually get misguided. if you haven't chosen the right lactation consultant, there's quite a lot of difference between them.

Yeah. That's why it's so, the world, it so confusing for parents out there. So would you say then a dentist who works with ties frequently, would that be a better person to have an assessment with?

Yeah, check with that dental office who are the lactating consultants that they can recommend. Because if I see someone that's called us, I still need to send them to a lactation consultant for getting an evaluation.

Got it. Beautiful. Thank you so much for sharing that with us. Thanks for being here. I'll remind everyone to check out your wonderful book. Here it is again, Breathe, Sleep, Thrive.

And for anyone who wants to learn more about you and all the things that you're working on, where can they find you? Yeah, well, I have recently launched a website for the book called BreatheSleepThriveBook.com.

Really, my goal is to bring this information out to more people, more healthcare professionals, as well as parents, so that we can allow more children to thrive to their full potential.

But otherwise my website, DrShrinling. Com.au, Instagram, yeah. But the book is also available on Amazon. So that's got the widest distribution. You can check it out there too.

Amazing. Well, thank you again. We will put all those links in the show notes and such valuable information that you're sharing. And thank so much for your wonderful work.

Thanks very much. I appreciate it.