Raising Healthy Kids: How To Stop Cardiometabolic Disease Before It Starts Transcript

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Introduction and Guest Welcome

Welcome back to the Reversing Heart Disease Summit. I am your co-host, doctor Reed and Rachel Scalzo, and I'm super excited to take a different perspective on heart disease today with our special guest, Doctor Alisa Song, who is a pediatric and integrative pediatrician.

Actually I'm there. Just stop it there. I'm going to start it again because I don't want them to have to edit. So I'm going to start that again. Okay.

And me I'm going to have some tea I. Know some water, some. Lubricate the old vocal cords. Okay. All right. We're starting fresh. Welcome back to Reversing Heart Disease Summit.

I'm your co-host, doctor reading or less so. And I'm excited today to have as our special guest, doctor Alisa Song. And we're going to take a little bit of a different approach to reversing and preventing heart disease.

So her, doctor Alisa is an integrative pediatrician. There's not a lot of those out there. And she's the author of the book Healthy Kids, Happy Kids, which is became a bestseller very, very quickly.

So welcome, doctor Alisa. Thanks for having me. What an important topic. And I love that. I love that you have a pediatrician on to talk about this. Yes, I think it's a first. We'll see.

But I'm super excited. And, you know, because people think about heart disease is an old person's disease, right? You know, that people in their 20s and 30s don't worry or think about heart disease.

Why Childhood Health Shapes Heart Disease Risk

They think about that like, you know, it's like people in their 50, 60, 7080s. But we know that the early chain, the changes that happen early on affect your tendency towards heart disease.

So what is it that happens in childhood that helps us to see who's at higher risk and also how do we prevent the risk early on? And what kind of things are you seeing in your own practice.

Yeah, I mean, it's such an important question because it's true. We think of these, I mean, so many of these diseases, not just heart disease, but, you know, any cardio metabolic disease, diabetes as sort of an adult thing.

And we're seeing signs that kids are heading towards these chronic health concerns at younger and younger ages. We know that, you know, nowadays, at least 1 in 2 kids has some sort of a chronic diagnosis.

And, you know, that's really more, we're seeing so much more eczema, asthma, allergies, anxiety, mental health concerns, autoimmunity. But then when you look underneath the surface and check their blood work, I'm seeing so many kids with all of the markers that we would be really alarmed at.

In adults, we would see an elevated fasting insulin, elevated hemoglobin A1 sees elevated cholesterol. And so much of this, I mean, we of course know that genetics plays a role and there can be some families were heart disease runs in the family, but that is only part of the picture.

And it's likely a smaller part of the picture than we think, because there's so much influence that are that we have so much power that we have with our diet and lifestyle to influence whatever health disease risks that we have.

And it's time to wake up now because the World Health Organization, I remember seeing a flier. I mean, this was sometime during the pandemic, but it was pretty alarming that 8 in 10 adults nowadays die of non-communicable diseases that means they're not dying of infections.

They're dying of diet and lifestyle related diseases, which we have control over. If we understand what factors affect our risks. And it's true, I mean, those those patterns get set.

I mean, that pattern of poor cardio metabolic health, even in, you know, childhood toddlerhood where we're seeing an increase in obesity and type two diabetes.

And, you know, nonalcoholic fatty liver disease, we are at this moment now where we're going to see kids, young adults in their 20s, 30s, having severe heart disease.

The Four S's: Sugar, Stress, Activity, and Sleep

If we don't, if we don't act now. Absolutely, absolutely. So when you say if we don't act now, what does that mean? I mean, you're we're talking to parents here and grandparents about what they can do to protect their little ones from this devastating outcome.

Yeah. Yeah. I mean, you know, when I think about, you know, the different areas to impact for, for heart health, there's really I mean, I try to remember things in terms of acronyms.

So, you know, I think of I think about them as, you know, the, the there are 3 or 4 S's that really are kind of what we really need to think about. The first one is sugar.

I mean, sugar plays a huge role in, increasing the risk of diabetes and cardio metabolic disease at younger and younger ages. And I'm seeing kids, you know, middle school kids, high school kids who don't fit the picture of type two diabetes or, you know, heart disease risk.

They are slim, they are athletic, they are exercising every day. And yet they're going out with their friends after practice every day getting a Starbucks or a boba tea.

So it's it's insidious. But then it's not even necessarily the obvious forms of sugar because, you know, many parents listening to this summit and this interview, now, they're not giving their kids gobs of candy and cookies every day.

However, the sugar can sneak in. So, so it's really important to be very savvy about reading every food label. And that's exactly what I teach in. In my book, I teach kids and adults how to read food labels like a gut hero.

So be a food label detective. Now, here's the thing. I mean, they're they're going to be hidden added sugars in things like your vanilla Greek yogurt that you think is so healthy for breakfast or, your whole grain, gluten free, high fiber sandwich bread or, you know, all of these things that really we don't necessarily think about, oh, that's a sugar bomb, but they can be.

And when you think about the fact and I teach my own kids to, they know that really children should not have any more than about 25g of added sugar in a day.

That's like, no. It's very. Generous. Right. And that is. Yes. So there's not I mean, they don't need that, but they should have no more than that. And I make it kind of, you know, I actually have some demos right here because it's really kids don't know 25g.

What they do know is six teaspoons. Right. So I literally I hold up like I'm going to show you right now, you know, six teaspoons of sugar. Right. And then after how long do you think it would take.

Do you think you could have six teaspoons of sugar? You know, in one sitting. And most kids like, oh, I know that would take a while. Right. Well, the average average teenager today has 34 teaspoons of added sugar in a day, 34

teaspoons.

And adults aren't much better. Adults have on average 19 teaspoons of added sugar in a day. So I mean that is three to, you know, six times the amount of added sugar that they should be having on any given day.

So it's pretty alarming. And why why sugar so important. Well sugar will will really increase your insulin resistance. It's going to impact how kids process sugar.

It's going to impact not just their their blood sugar regulation, but their hormone health, their their lipid metabolism and all of these things that are leading our kids, even, you know, as quote, fit, you know, young kids and adults into type two diabetes and fatty liver disease.

And that's the really the segue into having heart disease when you're older. So, that is one of the most important things that we can teach our kids how to get a handle on and really, you know, moving away from needing that sweet, sweet flavor and enjoying the natural sweetness of real whole foods foods.

Right? And interestingly enough, when you say all this, that looking at the label, right, they now give you most labels will say added sugar. So it'll say carbohydrate, fiber, sugar, added sugar.

That's right. Go for nothing added right. Yeah, yeah. Juice in one of the things. But really going to as low as possible because when people when the kids are eating this sugar, they're getting big influxes of, of insulin.

Right. And they haven't yet developed insulin resistance as little kids. So their blood sugar may come down. But we also see a lot of kids. And let me know if you see this in your practice that have those crashes that I got to eat.

Now I've got. It. Oh yeah. Well that's that's the sugar rollercoaster, right. That a lot of parents are all too familiar with. I mean, you know, and, you know, as an example, you know, I was inadvertently doing this with my kids where I thought, oh, I'll give them the vanilla Greek yogurt because it's got protein and healthy fats in it and some probiotics in it.

And I'm not going to do the strawberry puree yogurt because that must have so much more sugar. Well, I didn't look at the label back then and I didn't realize, oh my gosh, this vanilla Greek yogurt had I mean, I want to say something like 27g of sugar per serving.

That's more than they should get in an entire day. So of course, you know, they're going to get I mean, once you're sugar spikes, you get this, you know, jittery, anxious, wired or hyper kid that you're sending off to school.

And then just right before lunch time, you know, that sugar insulin comes and then drops the sugar off and way too low. So then they're they're anxious or they're angry or they're rolling on the floor and teacher's like, why can't you concentrate or what's going on?

I mean, we have whole classrooms like this, right? Right. And that that's where the problem. That's right. And then at lunchtime, kids are getting, you know, peanut butter and jelly sandwiches with the high sugar jam and, you know, getting, you know, little, little treats in their lunch boxes.

And again, that sets them off for another sugar spike. And it kind of goes, goes back and forth. And so this sugar roller coaster, the kids are I see that in a lot of kids and I and I see it I mean, some kids are more vulnerable and sensitive to it.

And, you know, the kids who do have attention and focus and behavioral concerns, they are more sensitive to the blood sugar swing. So it's even more important to, you know, if they are having some sugar.

First, we want to lower it. But if they are having sugar, you have to really make sure they're getting the fiber to slow it down, you know, and the healthy fats to really keep their blood sugar stable.

And that's the reason why, you know, an apple, a glass of apple juice is absolutely not the same as eating a whole apple. I had one kiddo who simply he was a teenager, and he was he actually was obese and, had high blood pressure and high cholesterol.

And, you know, he was I mean, it's such a sweet 16 year old, right? And he played soccer and he was he was active, but we just he just couldn't keep the weight off and wonder what he's doing.

Well, I found out that, you know, we took a really good diet history. And he was eating his vegetables, eating lots of whole foods. And yet his dad mistakenly, I mean, through no fault of his own, but but thought that starting the day with a glass or two of orange juice was healthy for him, right?

And didn't realize, well, when we buy, it's different than juicing your own own fruit where the some of the pulp remains and you know, you get some of that fiber.

But in, you know, ultra processed, high heat processed juice is on the market. Every single strip of fiber is is stripped out. And so you're basically having pure sugar even though it's a fruit juice.

And so the second we cut that out, the weight started to come off. His blood sugar markers, cholesterol markers, all of that started to normalize. And by the time he went off to college, he was doing great.

And so it's just, you know, identifying these little, you know, the ways that the food industry have really kind of sabotaged our way of thinking. And, and, you know, fruit juices are often put into processed foods to make them sweeter without us.

And so we think, oh, that's better than adding, you know, the the corn sirup or the cane sugar. And I would say it's really not much better at all. Right? Right.

Because when whatever nutrients we think are in the original fruit probably gone because most of them are water soluble anyway. And when they heat high heat, process it, we kill those anyway.

So the amount of nutrients and interestingly enough, and I just want to make the connection back to heart disease. Like this kid at 16 was already showing risk factors for heart disease.

Right. Oh yeah. Absolutely very high. And but the thing about it is insulin causes high blood pressure. Insulin stiffens the artery walls and damages the endothelium.

So at an early age we're seeing this. So I just want to also bring back to what you said early risk factors looking at kids, not just looking at their diet but looking at their behaviors.

And when you have a kid who's on these roller coaster rides and ups and downs, that that is something we need to be looking at very carefully as a sign, an early indication that they are heading towards heart disease risk.

Yeah, that they're not managing their sugars. And as you said, I mean, for, for for me, in my practice, I don't necessarily see the heart disease, but I see the risk.

And you know, looking at insulin sensitivity is, is a really important way to assess kids future risks for heart disease, whether or not it runs in the family because there's so many adults who there's really not heart disease in the family.

And yet we have an epidemic of heart disease in our adults. Very big epidemic. So you had for essence that. Oh yeah. So that the sugar the next one is stress.

I mean psychological stress with its impact on the autonomic nervous system. So many people listening have heard of the sympathetic fight or flight part of our autonomic nervous system that should be balanced with really a higher level of parasympathetic vagus nerve activation.

That's our Rest digest restore state. Now, we know that kids in adults have too much stress nowadays. And I'm going to say too much unmanaged stress because a little bit of stress is actually good for us.

A little bit of stress that we can manage gets our body, our brains, our immune systems actually stronger. Right? So we don't want zero stress. But the problem is we have, I mean, in our modern world, this unrelenting, you know, chronic stress that goes on managing kids and adults really don't have the tools to learn how to manage, whether it's through, you know, breath.

We were just talking about or meditation or, you know, yoga or whatever it is. Now, the reason why this is so important is because we know with chronic stress and stress and activation of the sympathetic nervous system, something called heart rate variability can decline.

And heart rate variability, which is a marker of vagus nerve function, is one of our best predictors of current and future health, including cardiovascular health.

And there was a cardiologist in in Germany who, who measured children's heart rate variability over the decades, starting from about the late 80s, and found that through the decades, children's heart rate variability are significantly declining, which is really, really frightening, because that is one of our most important ways that we can assess health risks, which is why people where their aura rings or where, you know, where they're woop or, you know, yes, Fitbit, all that because, yeah, heart rate variability is such an important marker.

And so if we're seeing that children are have declining heart rate variability I mean this is in childhood. Well most people's hurry variabilities continue to decline.

That should be at their optimal in childhood. And then it continues to decline in adulthood. And so that is a big red flag that if we don't do something and give our kids the tools to understand how to manage stress and act to rate their vagus nerves on a daily basis, that's a huge risk factor for cardiac disease when they're older.

Wow. Okay. So sugar and stress to. Stress the next the the third US is sedentary lifestyle which we know of through the pandemic. You know so many kids there were zoom school at first and then you know kids, you know lots of kids connecting via social media and video games.

And when we think about, I mean, there's so much more evidence now on the harms on kids mental health, especially our teenage girls with social media.

And then for boys, the gaming and the addiction. But it's not just that. It's what they're not doing when they're gaming or on their phones. They're not moving. Right.

And so we've seen this direct correlation with an increase in just being sedentary. I mean just on the couch indoors, not getting vitamin D, not walking, not engaging, you know, and so, so that is really, really huge.

And again, these are not necessarily kids who are overweight or obese. These are slim kids who, you know, they're sort of the, the, you know, I mean, what's the saying?

The fat on the inside, skinny on the outside. Right. You know that there's that there's they look slim, but they're probably when they're gaming, not eating the healthiest foods.

Right? They're grabbing for the chips and the snacks and the easy things, but they're not moving. And so there they have again, all of the blood markers that I was talking about with sugar, we're seeing that in kids who are very sedentary.

And so we as as parents and pediatricians and family practice docs, anyone who sees kids or has kids or works with kids, we need to be really aware that even the children that we don't think of as typical risk factor kids for diabetes and heart disease, we need to be looking at all of our kids.

And so that's the third. As get kids moving. It's great for their immune system. It's great for their brains, it's great for their heart health. And then the fourth and final is is sleep.

We have, a society of chronically sleep deprived, deprived kids and adults. So just simply, there was one day that looked at, college kids just moving their bed time up just by 15 minutes, just 15 minutes.

Improve their brain health, their mental health, their cognitive performance.

Testing Kids for Early Cardiometabolic Risk

I bet if they looked at other inflammatory markers in their blood, all of that would improve. Because sleep is sort of the magic restorative, you know, silver bullet that everyone's looking for.

You know, our body, it's it's you know, we a lot of people think, oh, I'm doing most of my work while I'm awake. Well, guess what? Your body is doing most of its work while you're asleep in terms of, you know, being metabolically active and repairing and restoring and detoxifying learning things.

And so, you know, that is something that is a huge priority. And, we want to think of it as, it's it's not just, oh, I'll sleep because I, you know, we'll practice some self-care.

It's no, sleep is medicine. You know, sleep is one of the most important things we can recommend if we want to have, you know, amazing future and future and current health.

Right? Right. So we have four S's. That's how you can remember them. So the the end recommendations action plans are is minimize the sugar, get rid of the sugar as much as possible.

Have stress management processes, keep the body moving and go to bed, get some sleep. So those are four easy things to help to reduce our kids risk. The other thing I want to ask you about is you mentioned a few, you know, markers and all that.

Do you routinely in your children test for A1, C and, insulin and all the inflammatory markers, C-reactive protein, etc., because that's not typically those are not typically tested by most MDS, even on adults and even on adults at risk.

So I would love to hear your recommendation there. Yeah. You know, once kids hit their tween and teen years, I will check, when I have an opportunity.

Now younger kids, it sometimes it's hard to do fasting, blood work and some of these have to be fasting. And there's also a problem with the volume of blood that you can draw in a little kid.

And so, you know, oftentimes and I don't necessarily see the blood markers shift until maybe about middle school, sometimes in elementary and middle schools, when I do start to see shifts in those markers in insulin creeping up, maybe not outright abnormal, but, you know, if if a normal insulin level is under 18, but we want to get to optimal, which I would say would be under five, you know, for for kids, right, 3 to 5 range.

And so I will start seeing in sun creeping up and and also then getting out right elevated in the middle school and teenage years. I absolutely before kids go off to college, I, I always recommend doing a, fairly extensive blood panel, whether it's a junior year or the beginning of their senior year, so that we can see where they're starting at and optimize their health before they head off and understand what's going on in their body so that they can make better choices in the cafeteria or when they're out with their friends.

But yeah, I will check a fasting, lipid panel for the teenagers. I may add a lipoprotein fractionation, you know, panel, fasting insulin, fasting glucose, your liver enzymes, hemoglobin A1, C, C-reactive protein and homocysteine.

Homocysteine is something, you know, we it is a great, cardiovascular risk disease marker. In adults, I don't

typically see a homocysteine level, elevated or abnormal in the middle school kids.

But once kids again start hitting those tween teen years, that's when I start to see Homocysteine Klein. And for listeners, homocysteine is also a marker that I use to assess methylation.

And you know how well, how much kids might need supplementation or food sources, a method for later methyl B12. But that it is in the teenage years where I'll start to see homocysteine rise and, you know, say it's same, you know, as adults.

Optimally, I would like, you know, I our teenagers to really have homocysteine under ten, under eight, you know, really trying to keep it under so that, so that we can reduce their risks of heart disease, and all sorts of other diseases as they head into adulthood.

Wow. Lots to think about. Right. And and lots of, of, risk factors that we should be looking for in our kids so that they don't have that sudden heart attack at 35 or 40 or 50 or whatever, that it doesn't come out of the blue that we're helping them to see it because it is.

Parents don't think about heart disease for their kids. They don't think about it for themselves. So we really need to be focused on this. And I really appreciate the work that you're doing as an integrative pediatrician and really looking at these things that most doctors don't even look at in their adult patients.

Right. And, and their risk factors we know about.

Practical Takeaways for Parents

So I would love to what parting words would you like to leave our listeners with in terms of reducing the risk starting at school? Kids? Yeah, I think, you know, you start with one thing at a time.

I mean, if, if at if your kids right now are teenagers and you're checking off, oh my gosh, the sugar stress, sedentary lifestyle and sleep, they're checking all the boxes for not, you know, doing those optimally.

So many kids are so many things are. So we just start with one at a time. It's not like you have to do everything at once. It's really about creating these lifestyle habits.

And I mean, on the flip side, yes, it can be challenging to change those lifestyle habits. On the other hand, we have total control over them. I mean, this this is something that we should feel really empowered by.

And and our kids should feel really empowered by that. You know, we don't have to, you know, succumb to whether it's family risk factors or our current risk factors.

We have the power to change that. And I think there's so much hope in that. Yeah. Thank you, thank you, thank you. So we've been listening to Doctor Alisa Song.

She is an integrative pediatrician, the author of Healthy Kids, Happy Kids. And this has been a very enlightening discussion and I so appreciate you being here.

Thanks for having me. And, see you on the next episode. Thank you for being here.