

JOSEPH SKELTON: Hi. This is Dr. Joseph Skelton. I'm the Director of the Brenner FIT, Families In Training, program at Wake Forest Baptist Medical Center and Brenner Children's Hospital. The title of my talk is Childhood Obesity-- Complex Simplicity. And hopefully by the end of this talk you'll know why I called it that.

Disclaimers and conflict of interest. I've done some consulting for Nestle nutritional products in the last year. But otherwise I have no conflict of interest, except in growing up I did work at a fast food restaurant, that I used some of that money to go to college. So I felt like I need to declare that conflict of interest. But unfortunately, long before Chick-fil-A had the cow campaign, I dressed up as Noodles the Chicken. So that's probably the worst conflict of interest that I have.

So what works in the prevention and treatment of pediatric obesity? And this still is an important question. Despite the focus that we have on prevention and what we can do from a regulation or policy standpoint, it's still very important because of the costs that you see on this slide.

This slide shows that we have upwards of \$140 to \$180 billion a year that we spend taking care of just the medical comorbidities that rise from obesity. So it's not just money spent on the prevention or treatment of obesity, but the billions and billions of dollars that we spend every year taking care of the problems. So it's very important that we know what works, as well as what prevents childhood obesity.

These are many of the diseases, which I'm not going to talk in great detail today. But to really reflect the scope of this problem in the United States, these used to be the diseases that we wanted to prevent children from developing as they got older as weight-related comorbidities. But we're now seeing these problems in younger and younger ages.

Except for gout and certain cancers, I've seen every single one of these diseases in a child. The weight problems are affecting children earlier and earlier. And the earlier onset you have of these diseases, the greater harm it's going to do to their body because of the increased duration of exposure of obesity in these children.

But that's really not the saddest part when you work with children who have weight issues. If you read the literature, it's really heartbreaking over what children who have weight issues go through on a daily basis, from being called names, beaten up, kids spreading rumors about them.

A famous study done in 1961, then repeated in 1992-- or I'm sorry, 2002, actually showed that discrimination of children who have weight problems has gotten worse. So they were picked last in who they would most like to be friends with. So it's kind of OK to still pick on the overweight kid in the class. The quality of life in children with weight issues is similar to that of children with cancer. And of course, all of this tends to coalesce in affecting a child's self-esteem.

So is there truly an epidemic of obesity? And you'll see from these slides-- and you don't really have to pay attention to the colors as much because you'll see almost all these colors will disappear as these weight issues begin to spread starting in 1990.

So you can see into 1998, 2002, 2005, 2008 and up into 2010, you can see that there's no blue states left, back in 1990 where one in 10, to the darker blue color of one in seven adults in those states were overweight and obese. But you can see in the darker red states where upwards of one out of every three adults has a problem with their weight, and this mirrors the rise in childhood obesity.

But it's not just what it's doing to our children. It's affecting other things that live in the house with us. So even our pets are beginning to have problems with their weight. Our pets' weight problems are really reflective of our increasing sedentary lifestyle. This is one of the more common problems seen by veterinarians today.

And the big numbers, you got to remember that a third of the children are overweight, and upwards of 2/3 of adults are overweight or obese. And what I want to point out here is that our generation of adults, where 2/3 have a problem with their weight, when they were children only about one out of 10 had a problem with their weight.

So when you look at this generation of children, where one third have a problem with their weight, an incredibly greater amount-- many of these kids are going to develop problems as they grow older. So most estimates hold that when our generation of children grow up, that nearly four out of five of them will have a problem with their weight as adults. So we must do something now while they're in childhood.

And so "To defeat your enemy, you must understand them." And that's really the million dollar question is, what is causing this? What's behind this rise in obesity? And it's a situation of chicken or the egg. What caused the problem? Was it the change in our families, or was it a change in our world, a change in our environment?

And I would say that it's actually a little bit of both. Our families have become very busy now. And that affects us in a lot of ways, that having increased activities, more things scheduled, gives us less time for healthy eating, less time for eating at home, and actually less time to have good, old-fashioned play, which should be the primary form of exercise that our children have.

And you can see from this graph that we have had an extreme growth in fast food restaurants. And what I would say is it's not restaurants that are trying to make us unhealthy. It's these restaurants that are acting in response to our busy lifestyles, of wanting to have quick, tasty, hot food on the go when we want it.

And to illustrate how this could be a problem, this is one of the popular burritos that you can get. And this would be one that you would say would be fairly healthy. It's a grilled chicken fajita burrito. And you can see that there's some rice. There's grilled vegetables, grilled chicken, corn salsa, a thin tortilla. I mean, you think going into this restaurant that this would be one of our healthy choices.

But you want to be a discerning shopper. So you pull up the nutrition menu, and you can see how horribly confusing it can be, that you'd need a calculator and about five minutes to pick out everything that's going into that burrito that you just ordered. And I'll go ahead and give you the punch line, that that grilled chicken fajita burrito, which seems like it would be healthy and even balanced, has 1,700 calories and 79 grams of fat in it.

And then you sort of have these perverse things that tend to come about where you combine different food products. And you almost wonder if they're doing this on purpose to make you unhealthy, and they're not doing that. It's just they're really trying to come up with new and exciting ways for people to buy their product. Unfortunately, this results in very unhealthy food products.

And in this slide, which you can compare what you would think would be an easy choice, on the left that you see that there's the fried chicken tenders versus a Quarter Pounder with Cheese. Now, yeah, it might be fried, but it says Chicken Selects Premium Breast Strips. So they're breast, and we know breast meat is going to be less fatty.

And it's premium, so that's sort of in there. Select, that must imply some sort of high quality. And a five piece is really not that big. And then you look at the calorie and fat content. The five-piece Chicken Selects Premium Breast Strips has more fat. It's got more calories and actually more trans fats than the Quarter Pounder with Cheese.

You can also see the Southwest Salad with Crispy Chicken. Now, that definitely is a healthier option. But what I would posit here is that any time you're not making the food yourself-- and if you scroll down, you'll see that the calorie content coming up-- if you're not making it yourself, you don't really know what's in there. So even though this salad is a healthier option, it still has a similar amount of calories, a similar amount of fat, and exact same amount of trans fat than your Quarter Pounder with Cheese.

And as I mentioned with the Chicken Selects Premium Breast Strips, always be a little suspicious when you see names get really long. It used to be that we thought juice was healthy, and then we realized that a lot of that was watered down with added sugar. So then it became 100% juice, and then 100% Pure Premium Fruit Juice. It implies this sort of healthiness straight from the fruit.

But if you're not eating the whole fruit, which has the skin, which has the fiber, which has the pulp, which is what really does your body healthy, not necessarily the large amount of vitamin C, even though it's good for you-- we get most of the vitamin C that we need from servings of fruit-- that this company is really trying to convince you that this is going to be the closest thing that you can get to actually eating the fruit, and really it's not.

You can see that even a full sugar drink like Kool-Aid has about the same nutritional content as 100% fruit juice. And now those are slightly different serving sizes. But you can see that while you do get vitamin C and it is a natural product with the fruit juice, it really comes down that you're just getting water with sugar, and that's really not good for our bodies.

Some other sort of tricks of the trade that can make it hard to determine what's going to be the healthiest thing for us is when we started adding whole grains to cereal. Now, I can assure you that this cereal that has 130 calories per serving and 1 gram of fiber, I can guarantee you that it had about the same amount of calories and the same amount of fiber before they started using whole grains, because it says whole grains, but it only has 1 gram of fiber.

And if you move on to the next part, and you can see the low sugar version came out, so 75% less sugar. But if you compare it to the full sugared version, you only go down 10 calories. The full sugar version had 130 calories, and the 75% less sugar version had 120 calories.

Now, the company even admitted, they said, well, we're not really saying that this is any better for you. We're just giving families what they want. And families wanted lower sugar cereals, so that's what we gave them, even though it probably is not any better for you than the regular version.

And even some of the products like this, that looks like it's fruit, and it can even convince people that it's almost the same thing if you have vitamin C or something else in it. And as the animation will give you an example that a lot of food products that appear to have some fruit in them and might actually imply that they're healthy really don't.

Apple Cinnamon Cheerios does have dried apple pieces. But before that it has whole grain oats, sugar, brown sugar, cornmeal, and cornstarch, and corn syrup. So it's got four different versions of sugar, if you count corn starch as a form of sugar, before you get some dried apple pieces.

So you're really not seeing much of the health benefits of the dried apple pieces because you can see that there's a lot of vitamins added to it. And then Strawberry Splash Yoplait Go-Gurt Yogurt actually has no fruit in it whatsoever, even though there's strawberry on the package and in the name.

And Fruit Snacks. This is what, at one point, was told by a food company would be a healthy alternative to fresh fruit if you couldn't have it. And you can see on the label it says 100% vitamin C, fat-free. It's got to be good for you. But if you see the animation that it's made of fruit juice from concentrate, corn syrup, sugar, and then other additives to that. So you have some fruit juice that's been concentrated, which also concentrates the sugar content, but then you have corn syrup and sugar as well. So I would offer the opinion that this is not an alternative to fresh fruits.

And one day I heard a dietitian say that a muffin is nothing but a bald cupcake. And I asked her what she was talking about, and so she gave me this example. And if you see the animation pop up, that these are similar servings.

Now, it's two cupcakes versus one muffin, but they're both about four ounces, that the muffin actually has more calories, has more fat, the same amount of saturated fat, and actually less fiber than two cupcakes. I mean, these are two nationally available cupcakes and muffins that are sold. So something that is often implied, like a muffin, which shows up on every hotel fresh start breakfast that I've ever seen, it really is a bald cupcake.

But it's not just about what we're eating. It's about how we're eating and what we go through every day. And this is my youngest son Dylan, and no, that's not him vomiting. That's him trying rice noodles. We were trying an Asian recipe. And I'm going to animate this one after another, and this is what I go through on a normal day with my son, who's actually a very good eater.

He fiddles with his breakfast. He loves his older brother, and so he doesn't eat a lot of breakfast because he's so distracted wanting to get his older brother's attention. And then he begs for a snack after breakfast on the way to the bus because he didn't eat much breakfast. And after that, I know that he has a 10:00 AM snack at school, which definitely tides him over since he didn't eat much breakfast.

Then he fiddles with his lunch because it's a quick 18-minute lunch period with hundreds of other kids in there. And then next, in his after-school program before his mom picks him up, they give him a snack there, which unfortunately tends to be candy. Luckily, we actually worked with the school recently to begin offering healthier snacks.

And after that, when he gets home and he sees that we're making grilled chicken and grilled vegetables for dinner, he starts begging for a snack. Why? Because snacks tend to be salty, crunchy, or sweet. And I'll talk a little bit more about that. And next, he fiddles with his dinner because, again, he's excited to be home with his brother and his parents and talking and talking and talking.

And then after that, he knows there's leftover Halloween candy up on the fridge. So he wants some of that for dessert. And then after all this, when he gets to bed, he knows especially that he can say, I'm hungry, hoping that someone will give him another salty, crunchy, or sweet snack.

And on the next slide, it's really about snacks. Something's come into our society that we have to give snacks all the time. And if you scroll through that, you can see, just as an example, for some reason at church we have to give kids snacks.

And after that is the birthday parties. And then when you're in a class with 22 other kids, there's lots of birthday parties that he goes to. And even though they have a snack at the birthday party and then cake and then they have pizza, now there's a trend in giving gifts to go home to the kids, which tend to involve snacks.

Next, when he goes to visit my mother, who he calls E-mommy, there's always snacks around the house. She takes him to the neighbors' houses, and they give him snacks. And next, when we go to a grocery store, right beside the vegetable aisle they're giving away cookies, hopefully to kind of pacify kids so parents can finish up their shopping trip.

And then finally, another thing that we were able to get changed is getting snacks removed from our waiting room in the hospital. And then finally, one thing I love about living in North Carolina is we have good, old-fashioned barber shops, where kids get lollipops after they have their hair cut.

And so you start to look at the prevalence of snacks across our society. Are we using snacks because kids are hungry, or are we doing it to occupy them and keep them quiet? It's a big question that we have and something you should look at with your own children. And a lot of this comes down to that we make literally, even though there's problems with hunger in the United States, we literally make too many calories per person per day. We make almost twice the amount of calories that we need on a daily basis.

And so what this has led to, you'll see that we're actually marketing directly to kids. And this was a fairly monumental book when it came out instructing people to go for the kids, try to get the kids to buy your product. Even though kids don't have a lot of money, they can definitely influence what their parents are going to buy.

This was a famous study done within the marketing circles called the "Nag Factor." And it was done to figure out how children can nag their parents more effectively, and so that's what they looked at. How can we go through kids to influence their parents to buy our product? And so they had a couple of neat findings that I'll sort of scroll through right here. They found two types of nagging-- repetitive nagging-- please, please, please, please, mommy, mommy, mommy, get me that please.

And then there's purposeful nagging-- get me that toy. It'll help me with hand-eye coordination. I went through this with my son recently of him wanting a smartphone of, he can keep in touch with us and tell us if he's running late and can tell us where he is.

And what they found, if you scroll through, is that purposeful nagging is actually much more effective than repetitive nagging, especially to parents that are immune to nagging. So they learned that purposeful nagging worked better, especially with parents who had more money. Ads changed. What ads started doing that were directed towards kids is giving them a reason-- giving them reasons to go to their parents.

Do chores and go to your parents and ask to go. This is what it's going to do for your body. Let's give kids reasons that they can take to their parents. And the best example of that is actually Chuck E. Cheese's, Where A Kid Can Be A Kid. It's part of their marketing campaign, where they actually gave children reasons or gave parents an excuse to take their kids to the restaurant.

And again, this is Dylan. And this is also a good example of how this affects us on a day-to-day basis. And you can see that the Boredom Blast, the Belly Washer, this drink actually looks more like a toy than it does a drink. And so I'll be going through a grocery store, and my child will see that, will realize it's a drink, because he loves *Cat in the Hat*. And he'll say, daddy, I'm thirsty. Can I have this? Can I have this? Well, my son's not thirsty, because he wasn't telling me he was thirsty before he saw this.

And so what happens to the parent then, you're in the middle of the store. Your child starts begging for this and you decide, OK, do I abort this whole trip now? Do I give in and get him one of these drinks? Or do I finish out my shopping trip while he's kicking and screaming?

And so you can see in the fine print there on this drink it says 100% vitamin C. And obviously my child is not at risk of scurvy, so why should I feel the need to give him vitamin C so quickly? But if you look at the label, and this is what's not on the front of the label, there's actually no juice in it at all. It's got 10 teaspoons of sugar, and the top two ingredients are water and high fructose corn syrup.

So it has nothing to do with my child's health or the fact that he's thirsty. But they want to sell him sugared water, and they're doing it not only by trying to appeal to me, saying it has vitamin C, but also that it looks like a toy that he could play with.

This table shows one of the newer areas that we need to focus on is giving parents the tools to raise kids in this environment. And this talks about the four types of parenting styles-- authoritative, authoritarian, permissive, and neglectful. And it's the authoritative is the one that we consider the gold standard, where they're respectful of the child's opinions, but they maintain clear boundaries. So it's a high sensitivity that you respect the child, but you also have clear boundaries and high expectations for self-control.

And so on this table, you then have authoritarian, which is more the strict disciplinarian. These are my rules. I don't care what you say about them. And if you scroll to the next slide, you'll see that it's actually the authoritarian, the strictest parents, have children with the highest rates of obesity.

So what the slide shows is that about a third of parents, 34%, are of that authoritarian style, but they have the highest prevalence of obesity. 17% of their children are obese versus the others that you would think would have a very high obesity rate, like permissive and neglectful. So we need to help parents understand that they need to have clear boundaries but be respectful of the child's autonomy.

An old-fashioned thing that we have is "Clean the Plate Club." And not only is that harmful because it actually forces kids to eat, or in some sense, it's you can't have dessert until you finish your plate. So where they end up eating everything, even when they're already full, just so they can get dessert. So they get fuller just so they can eat dessert on a full stomach. And one of the problems is we have much bigger plates than we did 20 years ago.

Luckily, the concept of super-size is going away a little bit. But what I would like to point out is that back in the 1960s, when the average French fry serving was 200 calories, that was when eating out was rare. My dad talked about going into a diner in the city in the 1960s, and he would have to wear his church clothes.

Whereas today, when we eat fast food upwards of three times a week, and French fries is the most eaten vegetable, if you'd even call it that, has about 610 calories. So not only are we doing it more often, we're eating more of it.

And this really reflects what I just said about half the vegetables that we eat tend to be the ones that we're not supposed to eat. We're supposed to be eating the majority of our vegetables dark green, leafy, orange vegetables, but instead they're potatoes. And whereas we're supposed to be eating at least half of our grains being whole grains, we're not anywhere near that.

But it's not just about what we're eating. It's about the energy that we're burning, that even 100 years ago, an average day laborer would burn about 3,000 calories. So they had to eat a lot to keep up with their daily jobs. Whereas some days, this is the most exercise I get is using a mouse on a computer. And it's the everyday activities of daily living that are also becoming easier because we live in an industrialized society. Even instead of going for a walk with the dog, you can just hop in the car and drag him down the road.

And a lot of what it comes to with kids is what they want to do for fun doesn't require a lot of activity. TV, video games, cell phones, internet, a lot of that doesn't require any energy expenditure. So whereas kids would normally, for physical activity, would go play outside, there's a lot more cool things they can do. And you can see that all of this is now wrapped up in one thing. It's on a cell phone.

So now activity, instead of being something that we get on a daily basis, has really become something that we have to fit in. As you can see on the slide, that they're not going to burn any calories, and they take the escalator up to the gym that's open 24 hours just so we can fit in that activity when we can.

And we're taking this concept of exercise being something that's not fun, that we have to do, and we're starting to transfer it down to our kids. And there's only one picture on this slide that is a joke actually. But we're taking fitness equipment and saying, hey, I think our kids need to do this because they're not getting activity in any other way.

And it's affecting us. This is something that I experience on a weekly basis of I then try to facilitate my kids playing sports, having fun with that. But then I actually can be less active because I'm sitting on a lawn chair on the side instead of playing these things with my kids. Whereas what we really want is kids playing games that they enjoy. It uses all their muscles. It's developmentally appropriate. And hopefully that we'll do it together as a family, also increasing our activity level as parents.

So to begin to boil it down, one of the big causes of this problem, boiling it down, has really come down to not only are we eating less healthy, we're eating more of it. And it's not the fact that we're not getting activity, which we're not, but we're still getting some activity. It's just that there's a lot cooler things that are pulling us away from being active, especially with our kids.

And so you take the simple equation of calories in and calories out, and it should be fairly simple. We need to decrease the calories in and decrease the calories out. Well, if it was this simple, we would have figured it out and fixed this problem years ago. It starts to fill in this simple equation with more complexity.

What about individual personalities with kids? My two children, my two boys, separated by four years, are very different personalities. My one child bounces off the walls. He even burns calories when he sleeps as much as he thrashes around in bed. Whereas my 12-year-old tends to just gravitate towards more sedentary activities. He plays in the band. He does a lot of other things that are great, but he's not naturally drawn to that. So kids' own personalities might influence how calories come in and calories go out.

And then what's influencing the calories coming in? Take government policies. If the government wants you to do something, then they subsidize it. So the government wants us to eat fruits and vegetables. Well, the most subsidized vegetable in the United States is actually corn. And 80% of that corn is made into corn syrup, corn oil, or ethanol-- sugar, fat, and powers our cars, none of which is very good for our bodies. So why is our government subsidizing it so much?

The calories out. Just take neighborhoods. If you don't have a sidewalk in your neighborhood or if you live in an unsafe neighborhood, it'll influence how active you are. And all that's going to be influenced by a child's family. What's the parent's work schedule? What sort of neighborhoods do they live in?

And what about the community? What are the policies and laws in neighborhoods in that community? What is the food availability? Where are the grocery stores? And what about the state? What is the state health plan like? Do they reimburse preventive care? How many parks and how many state forests and outdoor activities do kids have access to? And the nation, and even the whole world. So taking one child and putting him in a context of all these things, it does get very complicated.

And I also like this quote. "Those who cannot remember the past are condemned to repeat it." And that's a lot of the situation that we're in is we're back to diets. We keep looking for the magic thing that can make this easy and fix our weight problems.

So why have we failed? If you break down problems into sort of three categories of problems, and so take a simple problem like a flat tire. You fix a flat tire. It's flat, put on a new tire, you fixed it. And the approaches to that with obesity are the ones you see a lot. How about healthy messages and campaigns? Is there a website that we can go to that'll tell us what we need to do to lose weight? And obviously that stuff has not worked.

The complicated problems. An example that would be traveling to the moon. Obviously that's a tough thing to do, but we've done it many times. Well, how did we do it? Well, we broke it down into smaller steps. We built a rocket. We learned how to blast off. We learned how to land on the moon. We learned how to get back.

So we've been able to do that by breaking it down into its smaller components. An example of that approach would be diet and exercise. Well, it's calories in, calories out. We need to address calories in, and we need to address calories out. Well, we've been doing that for generations, and we're still not seeing a decrease in our obesity problems.

And then there's the complex problems. And even though I wouldn't call raising a child a problem, it shows that it's not just something that you can break down into simple steps about raising a child. Every child, every family, every parent is different. It's going to be different for every single child.

And so in looking at a problem as complex as obesity and childhood obesity, we need to address it in a complex way. We need family-centered approaches. And you need family-focused approaches because that's where a lot of the prevention is going to occur.

And we call this the iceberg model, and this gives sort of an understanding of complexity of obesity. We know it's an issue of nutrition and exercise or even lack of exercise. And we know it's influenced by the environment. And so I think a lot of us look at obesity like this, that we know it's a problem, but why aren't we able to address it? Well, 90% of an iceberg is below the surface. So a lot of the issues behind obesity and the poor nutrition and poor activity and exercise levels are really below the surface.

There's many behaviors that are below the surface that feed into those unhealthy nutrition patterns, from portion sizes and sugar-sweetened beverages. How much do they eat? How much do they cook? What is their income level? Do they eat breakfast? What do they have for snacks? Do they skip meals? Eating in the absence of hunger? So there's a lot of habits and behaviors that really feed into those nutrition levels that we need to address instead of just addressing what the nutrition is.

And the same goes for activity. It's not just about kicking the kids outside or taking them to a gym. There's a lot of other things that factor into it. Do they walk to school? Do they walk to any of their activities? Do they have time for free play? Does the family or school encourage them to be active? So that, again, the simple problem of poor nutrition and physical activity, it's deeper. It's below the surface of the habits that we need to address in order to fix this problem.

But you can't just describe to someone how to swim. You need to practice. You need to learn to be comfortable in the water. You need to learn the strokes. You need to do it over and over and over until you're good at it. And we need to look at healthy living in the same way. And again, an old saying, "Give a man a fish, he will eat for a day." And every day in our country, we have the opportunity to be unhealthy, from fast food to sitting in front of a computer like we're doing right now.

We need to find out how to practice to be healthy. So we need to teach people. Teach a man a fish, and he'll eat for a lifetime. So give them opportunities. Teach them skills. We need to make learning an experiential process. We need to practice. We need discover new ways to teach these topics. It's not something that's just that simple. And we need to give people the skills and the opportunities to practice these healthy living tips.

But it's going to be different for every person. And I love this quote from Sir William Osler. "It is much more important to know what sort of patient has a disease than what sort of disease a patient has." it's almost like cancer. If you said, how do you treat cancer, well, that depends. Is it breast cancer? Is it colon cancer? Is it a brain tumor?

It's totally different. And you approach them in very different ways. Well, everyone who has an issue with their weight has an issue for different reasons. And so doing the same approach, the same diet and exercise, for every person, it's not going to work.

And we need to take a different approach to families who are struggling with this. Oftentimes, we tend to be scolding. We tend to make families feel guilty. We tend to blame parents for their child's weight. Well, we don't really know what they're going from.

We had an interesting family come in, a mother and daughter. The daughter had a problem with her weight. And you could just see the tension in the room. The daughter would barely even make eye contact with the mother. And we knew from that very first visit that before we could make any changes, we needed them to actually communicate with each other.

So for the first four months of the time they spent with us, we really spent it on the mother and daughter actually learning how to talk with each other without getting angry. Hardly addressed any nutrition or activity issues. And so when they came to their four-month check-up with us, the daughter had lost 16 pounds. And we were floored.

How did you do that? We didn't really do anything when it came to healthy living. And she just said, you guys cared about us. You knew what our issue was and knew what we needed to fix, and you cared about us. And then from there, we found it easy. We were able to talk to each other. They already had a lot of this knowledge and were able to put it into place.

And so in doing this, in trying to prevent this problem, a problem of such a large scale, really working with entire families. It's like a built-in support unit. We know adults that successfully lose weight usually have a partner or a buddy or a support person. Well, families can be that for each other. And so working with entire families to build healthier habits, to teach kids how to live in this unhealthy world, is really going to be one of the main keys to addressing this problem.

So thank you for listening to this. I hope this was beneficial and has given you some different insight into the problem, an epidemic of pediatric obesity, and some ways that we can begin addressing it to fix this problem. Thank you.