



Episode 351: A Parent's Guide to Precocious
Puberty & How to Slow It Down
With Dr. Anne Marie Fine

Child: Welcome to my Mommy's podcast.

This episode is sponsored by Everlywell, at-home lab tests that you can get without a doctor's order! I've used many of their tests and I like to recommend a couple that have been especially helpful. They have an at-home allergy test for 40 of the most common allergens using the same CLIA-certified labs used by Allergists/Doctors. The labs are reviewed by an independent physician and this lab test measures IgE levels of common allergens including pet dander, mold, trees, grasses, and more. But you can do it from your own home and through a finger stick. I also really like their food sensitivity tests that test for IgG reactions. This was a big key for me in my health recovery, as there were foods that didn't show up as an allergy that were causing inflammation. I used an elimination diet, but this food sensitivity test also filled in the missing piece of the puzzle for me. Through healing my gut, I've been able to remove all sensitivities except for eggs. Finding out I was highly sensitive to eggs made a huge difference for me, as I ate them often as an inexpensive protein source. I feel so much better now that I don't eat eggs and I would never have known that without this test! I also use their at-home Vitamin D test to keep an eye on those levels. Check out all of their tests at wellnessmama.com/go/everlywell. Use code MAMA10 for 10% off orders

This episode is sponsored by Joovv, a natural red light therapy in your very own home. We may not think of light when we think of essential nutrients that our body needs, but light is absolutely necessary! This is the reason I go outside as soon as possible after waking up in the morning, and the reason I spend time in front of my Joovv. Light is energy and our bodies need light in certain forms in order to sustain healthy cellular function. Red light in particular, especially in certain wavelengths, has very specific benefits for hair, skin, and cellular energy. I like Joovv because they are third-party tested for safety and performance and use a Patented modular design which allows you easily treat your whole body in under 20 minute and lets you use anything from a small system to a larger system that you would find in a Chiropractors office. Joovv uses clinically proven wavelengths of light that provide energy to the body. They have Bundle pricing discounts which allow you to save more money when purchasing larger setups. Get free shipping at joovv.com/wellnessmama and use code WELLNESSMAMA for a free gift!

Katie: Hello and welcome to the "Wellness Mama" podcast. I'm Katie from wellnessmama.com and wellnesse.com, that's wellnesse.com with an E on the end, which is my new line of completely natural and completely effective personal care products like hair care and toothpaste and now hand sanitizer. So make sure to check that out. This episode is a big one for any parents with preteens or kids that are getting close to that age because it's all about precocious puberty and how we can help make sure our kids don't go through puberty too early and what we can do to support them when they do.

Dr. Anne-Marie Fine is my guest today. She's a doctor, award-winning researcher, and best-selling author, and the founder and CEO of IAMFINE, which is based on her personal and clinical experience with chronic disease called by environmental toxicity. And environmental toxicity is a big factor when it comes to precocious puberty. We're gonna go deep on that today. But she also works with those with autoimmune disease, chronic fatigue, fibromyalgia, brain fog, cancer, etc., and she's done a lot of research on the rising environmental

concentrations of 80,000 new chemicals in our environment and how this expresses in every phase of life, from preconception and pregnancy to precocious puberty, and even to health and hormone problems as adults.

So, a very information-packed episode that I know you will enjoy. And without further ado, let's jump in. Dr. Fine, welcome. Thank you for being here.

Dr. Fine: Well, thanks for inviting me. I'm happy to be here.

Katie: I am really excited to chat with you about a topic that is coming up more and more with my readers and my listeners, which makes me think that it must be on the rise. And that topic is precocious puberty. And I think that there's a lot of factors that go into this. And I think a lot of them have to do with an area of research and work that you do all the time. So, I guess, to start, for anyone who's not familiar with that term, let's define what the term precocious puberty is.

Dr. Fine: Precocious puberty is a label given to the fact that the boys and the girls are reaching certain signs of puberty, like pubic hair and changes in breast development, and breast budding, and genitalia. It's really the age at which this is occurring in the boys and girls. And the problem is that the age at which this is happening has been declining pretty much globally. And so, people want to know why because there are implications for early puberty. And the other thing about precocious puberty is that the mainstream conventional medical doctors are just simply changing what's normal to what they're seeing in the practice. And so, now they're saying that precocious puberty is the appearance of any sign of secondary sex characteristics in boys younger than age 9, and in girls younger than age 7.5 or 8. Whereas normal puberty in a girl is what they're saying now is anywhere from 8 to 13 years of age, when really, 12 to 13 for a girl is, for about the last 50 to 75 years has been more of the norm, not 8 to 13 years of age.

Katie: Wow. And from what I've read, that change in age, and the percentage of people who are going through puberty earlier, that's rising relatively drastically, like you said, compared to previous generations. What do you think are some of the factors in that pretty rapid change?

Dr. Fine: Well, the one that I'm not gonna talk about too much because I wanna really get into the chemical contributors like endocrine disruptors, but one of the other environmental factors involved in earlier puberty is the rise in obesity. And that has been fueling it as well. And our fat cells actually make estrogen. And so, that's something that has been looked at as well. But there are many chemicals that I want to talk about, like pesticides, fungicides, herbicides, cleaning substances, cosmetic products, dyes, plastic solvents that are termed endocrine disruptors, meaning that they have the ability to change how our hormones work in extremely tiny doses. And this is the key, extremely tiny doses. And that's how our own hormones work. Very tiny doses of hormones actually have large effects.

So when you have these teeny-tiny doses of chemicals in the environment, particularly at certain vulnerable ages of development, like in fetuses, for example, when certain...when your reproductive organs are actually becoming into being. They're actually developing and the brain is developing. When you have exposure to these substances, you're going to get something that may not manifest until puberty, or may not manifest. The breast cancer and prostate cancer increases risk. You may not see that until these people are adults. But some of the origins of these instigators are actually in fetuses. And that's why it's really important to do a preconception detox for women who are wanting to conceive because it starts there. We really have to look at where the baby starts.

Katie: Okay. So, let's go, kind of, almost maybe on a timeline. Because obviously, parents who are dealing with, like, children now are worried about this phase being imminent. They don't have the ability to go back and do preconception over. I know, I've read so much since I had my firstborn kids. I wish I could've changed things then. So I definitely want to make sure we see...you know, obviously, we're not judging or trying.....anyone who's not there. But let's start there, like in a perfect world, what would we do before we even conceive to help give our kids the best hormonal start?

Dr. Fine: Before conception, the best thing to do is to see a doctor trained in Environmental Medicine who will take a very thorough history, including an environmental history to get likely exposures and where the person lives. There's so much we can do with looking at, you know, with the internet, you can look up places by zip code and see what the main chemicals are in that environment. And then those people, and it really should be men and women, the sperm actually does carry environmental contaminant information into the new baby. Traditionally, we have focused on the mother though. And then those prospective parents need to be tested to see what contaminants, what kinds of chemicals is really high in them. And so, the program is going to be designed personally for those people.

So, it's not... The same people don't do the same thing. There is no reason to do, like, a heavy metal detox on somebody who doesn't have a problem with heavy metals, right. So, you want to see what problems, what environmental exposures those people have so that you can really zero in on them and make sure that you're doing a good detox. And then as far as some of us have already had kids, oh, wow, do I know that? Because I'm a mother too, and I've already had my kids. And I had them long ago before women were told anything about what to avoid, even when you're expecting. And so, when I was pregnant, the only thing we were told was avoid alcohol and caffeine. That was it. And I have to tell you, I ate so much tuna when I was pregnant.

And, you know, that's high in mercury. And I wound up with these kids who had ADHD, and I'm like, "I wonder what happened because, you know, I thought I was doing a good job." But I did a course correction in childhood. I tested them for heavy metals and mercury. And when I saw it was high, I was able to go in and do some heavy metal chelation or detoxification. And I was really pleased to do that because when you're a mother, one thing to remember, because you may have a lot of younger mothers listening right now, is when you have your children at home, that's an ideal time to work with them. If you've missed something, like I most certainly did, to do the course correction and take care of it. Because once they're 18 and leave the home, you know, your word is not the gospel anymore.

As a mother, it's a lot harder to be able to go back and to do something. Unless of course, it's their personal motivation, then, of course, that comes into play. So, I really feel that you made such a good point. A lot of us didn't have that option. I certainly had never heard about it. And so, you just need to as you have children, and even in your own cells, as you grow, you always have the opportunity to make course corrections and to go back and to test and to really do a deep dive into what could be causing your particular health concerns. And then to be able to, you know, decrease your body burden of chemicals. So, it is not too late.

And also I want to say, I want to make this clear as well because this is what I see in my practice, sometimes, the mothers, they come in when they're already pregnant. So, that's not an ideal time, right? Or they've waited so long to get pregnant because of career concerns or financial concerns that now they're concerned about, you know, getting to be too old and not being able to conceive. And they may not feel, you know, the need to take time out before they conceive to do preconception care. And so, those are some real...those are real-life issues that do crop up, but it is something that I do recommend. But, you know, it's something that you have to, sort of, fix it in your head before the time arrives when you're already pregnant, or you feel like, "I'm so old. I've just gotta get pregnant." That's really more important, right?

Katie: Yeah, exactly. And there's a message of hope too, for anyone listening. I always try to remind everyone, you know, I didn't figure out most of this stuff, sounds like you as well, until I was an adult and had autoimmune disease, and then had to undo all the damage and figure out what was wrong. And so, if we're talking about this for our kids, even us starting when they're children at all is an advantage over waiting until they're adults. You know, so anytime, like the best time to plant a tree was 20 years ago, the second-best time is today. We always can start with what we know now.

And so, I would guess also, there's kind of a spectrum. So, I think of it as like for autoimmune disease, for instance, I've kind of explained it that we all have a bucket and you can fill the bucket with any number of things. You could put marbles, or sand, or pine cones, or whatever it may be. But when you reach the top, it's going to overflow. The idea being when you fill up that bucket and it gets overwhelmed, you're gonna end up with some kind of problem and it's gonna manifest differently for each of us. And I think of environmental toxins kind of in the same way.

The body is able to handle small amounts of these things and it's pretty resilient. But when you reach a certain level of exposure, it's going to bubble over. And so, you can tell me if that analogy maybe doesn't work here, but that's my thought with kids. And so, if we can mitigate their exposure and do things when they're young to help them avoid filling up the bucket in the first place, that's an advantage. Or if we can do things to help them take things back out of the bucket, that's another advantage. And the earlier we can do that, the better. But anytime is a great time to start.

Dr. Fine: Absolutely, Katie. I so agree. We call that the rain barrel theory. And it's true, it doesn't matter what's in there. Lots of things go in there, environmental toxins go in there, but also stress goes in there, and poor

nutrition goes in there. And once it reaches the top, the next thing in, no matter what it is, if it overflows, that's what's going to trigger the disease. And so, the idea, it can be super specific if you are testing for it and looking carefully for it, but also, the pervading theory is that anything you can do to lower your bucket would be helpful, and to start at any time is helpful.

And by the way, even if you, you know, are super careful with your pregnancy and childhood, as we live and accumulate years, and our earth continues to be polluted, even when we're careful, we are always accumulating body burden of chemicals. And so, it becomes necessary to make it a part of your daily life, but also, every now and then, to do a detox and lower that body burden before it overflows. Or a lot of people will wait until they have the actual, for example, autoimmune disease or something, and then they will go ahead and do it, or they get cancer or something like that. But it's not a one and done. And so, it's something that we really have to put in our toolbox and in the back of our head that this is an area that we need to pay attention to throughout life.

Katie: Absolutely. Okay. So, let's go deeper on into chapters, especially for the subset of parents listening who are asking me these questions via email or direct message, who want to know, you know, if my kid...maybe they didn't even expect this, my kid is at these younger ages and starting to show symptoms of potential precocious puberty. Like, what do they need to know about endocrine disrupters so explain what those are and where they are most often found when we're talking about our kids?

Dr. Fine: Okay. So, let's talk about specifics with the early puberty. Two of the biggest contributors to this precocious puberty are, I would say, BPA and phthalates which are plasticizers. So, the whole category of plastics is something that I'm gonna focus on here. And I'm gonna talk about them separately, but I'm gonna just tell you a few of the places where they are. Children's toys contain phthalates, like that rubber ducky in the bath. Those rubber, soft rubber toys are phthalates. The shower curtain in your bathroom, if it's vinyl, it's got phthalates. And the problem with phthalates is that they're not bonded to that underlying material. They are constantly falling off into the air. And so even your dust in your home has phthalates in it.

And so, believe it or not, Katie, this is so easy and free to do for everybody. But we need to dust more often and more carefully in our house, and that will keep environmental toxins down. You would not believe what's in your dust, okay. And then in our cleaning products, we also have phthalates and our personal care products because phthalates are also used as incense, as scent fixatives. And so, the easy way to know that is to look at the ingredient list. And if you see the word fragrance or perfume on the ingredient list, that's your cue that most likely those substances contain fragrances. You will never see phthalate on a label of anything. It's just not required to be listed. Fragrances are a protected trade secret, and the word fragrance can hide up to 80 or 100 different chemicals and you don't really know what they are, okay. So, let me just go through a few more of these and then we'll back up a little. So, that covers the phthalates pretty well.

And then also, I wanna talk about plug-in air fresheners. Everyone listening should just after they hear this, they should just unplug them and throw them away because they contain phthalates. They contain formaldehyde, which is a carcinogen. They contain benzene, which is another carcinogen. And they are just

emitting these into the air. And so you're breathing them into your body. Phthalates can also be absorbed transdermally. So, if you have a scent emitter in your house, even those little sticks that you put in the jar of scents, if your skin is bare, and you're...and it's...I mean, you can't even see it, but you are absorbing this stuff multiple different ways.

When you go to a department store and you're walking in, and you've got the perfume sprayers, and I hate that. And so I always say, "No, thank you." And I feel pretty virtuous about that. But then I discovered probably three or four years ago, that even if you yourself did not put any of it on your own skin, just walking through that cloud of perfume, every inch of your skin that was exposed you are absorbing that which means fragrance is like the new secondhand smoke. If you're sitting in an office, for example, and you yourself don't wear scents because you don't want the endocrine-disrupting effects of phthalates, but let's say you're...the other people in the office are wearing scented...and it's not just perfume, perfume is an obvious one, perfume and aftershave are obvious, but it's underarm deodorant. It's body lotion. It's makeup. It's hairspray. It's many other things.

And so, if someone in your office is wearing it, you're exposed even though you yourself did not consent. And you were educated enough to say "No," and you're using unscented products such as laundry detergent, dryer sheets, all of these things have phthalates. Our homes are just pumped through with endocrine-disrupting chemicals that are contributing to many things. Not just precocious puberty, they're contributing to...they make you fat. They predispose you to diabetes and other health problems.

And also, I wanted to mention that the Endocrine Society, which is the world's largest professional association of medical and research endocrinologists. So these are very conventional doctors, and even they have come on board and they consider reducing endocrine-disrupting chemical impacts to be one of their highest public health goals. So, when they came out with that a few years ago, you know, that was pretty profound that it's being recognized everywhere.

So then, the other one that I want to talk about is the Bisphenols, Bisphenol A, BPA. And BPA is also part of plastic and predisposing to precocious puberty. And it's found in the polycarbonate water containers. It's found in thermal receipts. Thermal receipts is actually a really large source of this. And just like the phthalates, this chemical is not bound very tightly to the underlying material. And just touching it, this has been proven in studies, within seconds, if you take that person's blood which they have, within seconds, not very many, you have BPA in the bloodstream. So, things are easily transferred, the BPA transfers from the thermal receipt onto your skin, into your body. And if you have used hand sanitizer prior to handling the receipt, you get about 10 times more BPA into your blood because the hand sanitizer contains things that are known penetration enhancers.

And that's something to be thinking about these days because the use of hand sanitizer has increased. So, where do you find the thermal receipts? You're going to find them in pretty much everywhere, the grocery store, the bank, the post office, if you get receipts at the gas station, you know, airline tickets. They're pretty much everywhere, fast food places, other restaurants. But here's the thing, we don't have to accept them. So,

just say no. Unless you are buying something that you might have to return, you know, you can just say, do you need the receipt for your restaurant meal? Take a picture of it on your phone or have it emailed to you. It's no...it does you no good to take those things.

And then the other problem for ladies especially is when we stuff those receipts in our purses, that BPA is just coming off and touching everything in your purse. And when you stick your hand in your purse to find your cell phone, or your glasses, or your wallet, every time you put your hand in your purse, you're just coating your hands with BPA. And so, I'll just leave this tip here right now so I don't forget it. But what I have my patients do is the ladies, I have them empty out their purse at home, get rid of all the receipts, take a cloth that's wet with hot water, wipe out the inside of the purse, wipe everything off, every...the wallet, the phone, the makeup kit, everything. And then, get a Ziploc bag or something like that and put it in your purse. And if you must take a receipt, put it in your Ziploc bag segregate it from touching anything else in your purse.

Now, for the men, they're discovering that, you know, same thing happens. The man puts it in their wallet. So, money is now contaminated with BPA and BPS. So, you know, it's something that avoidance is really key here. You have to be really careful and aware of BPA. It's insidious. The CDC has been tracking chemicals in our blood for decades. And at last count, it's like BPA was in 95% of U.S. people, even though their half-life is pretty short. So, if it's been found in 95% of Americans, that just means we're exposed so ubiquitously that you could take our blood at any time and we would have it just because, you know, the stuff we were exposed to maybe two days ago, that's gone. But now the stuff we were exposed to today, now that's in there.

So, the BPA story I had...you know, I have a patient, we have to be really careful because sometimes I get patients who are looking at certain things in their environment, like the water supply and saying, "I can do better." Yes, we can all do better, right. So, that's good. And then they were ordering it from one of the water purification, I'm not gonna name them, who deliver it to your house on a regular schedule. And it's purified, and then you can look up the water on their website and see what's in it and what's not in it. And it's really interesting. I looked up this particular water, it actually was...it was pretty good water. But all of the containers were made of polycarbonate, BPA. And so, you don't know how long that water, that good water, you know, about how long it's been sitting in there touching the BPA which is coming off into it.

When they're on these hot trucks being delivered, you don't know how long they're on there. You don't know how long they sat on a shelf in the warehouse before it was even shipped to you. And what's interesting is I called the company to talk about this, basically to ask them were they aware that this was not a good idea, and they basically said, "Yes, we're aware that our containers contain BPA. However, we don't feel that there is a health issue there. And so we are...you know, we're still gonna use it." And so, they haven't really caught up to the science. And it's really, unfortunately, mommas, it's up to us to be our own FDA and to be able to be more discerning about what we allow into our homes. And so that...so, the idea of getting purified water is a good idea. There's so much crap in the waters.

I've got a whole...I teach doctors environmental medicine. And one of my...one of the talks that I've gotten the most positive feedback on is the one that I did on, "What is in our water?" You would not believe it. But

anyway, so with water, you do not want to drink bottled water of any kind, no matter how good you think the water is supposed to be on the inside. You want to have water that is in a glass bottle. And that's really important. And that's something that as families...and by the way, when I was a young mother, I did not know this. And so that was something that was overlooked. But thankfully, I eventually was able to get a reverse osmosis water system and not worry about that. And so, we have to just...like Katie said, you just have to start where you are. There's no value in saying "Oh, woe is me..... I did it wrong." No, you just start where you are. And you make the better decision and then you move forward.

Katie: Exactly. Well, and looks like I'll just jump in on the water note because I think you're right. And I have posts about this that I'll link in the show notes as well at wellnessmama.fm. And I know you have resources as well. So, those will all be linked in the show notes. But when I started learning about this, getting rid of plastic can seem so overwhelming. And I'm a big fan of the 80-20 rule. So, for me personally, I figured out based on the current research, the biggest sources of exposure, like you mentioned, are inhalation via the air, and our water supply, and especially plastic water bottles, which are also horrible for the planet. So, we prioritized getting a water filter, actually a whole house filter we have at this point, and under the sink filter, and switching to using reusable metal water bottles, which is also much more eco-friendly as well. And that's one change that makes a big, big, big difference.

And so if we can just move away from drinking out of disposable single used plastic in general, that's a huge thing. We also put air filters in our house and don't use air fresheners, of course, and switch to things like plastic-free in the kitchen. And I have resources to help walk people through all of that. But again, it's like any incremental change you can make in this is a big deal, especially when we're talking about kids. And that doesn't mean you have to, you know, do it all overnight. This can definitely be a process, but it's an important one to be aware of, certainly.

Dr. Fine: Yeah. And so, that's what you wanna focus on when you have the kids at home, I think we wanna get back to how do you...what do you do with these kids who have precocious puberty? You have to look at, "Oh my gosh, I've gotta call out this one company." Well, maybe not by name. But I think we have to take a really deeper look at what is in our homes because that's where you as mothers, that's where we make the most difference. The home is our domain. And we are the ones who are able to set it up in the way we want. And so, we really want to...like you said, Katie, we really want to root out all of the plastics, and all of the scented.

Honestly, I think the plastics and the scents in our home, those two...and to dust more, because I didn't even talk about the flame retardants and all the other things that are in your house dust. But I believe, dusting twice a week, getting rid of plastic, getting rid of all of the scented products in your house, and eating organic, those things together are really going to be important for limiting things in your children that are endocrine disruptors. And we haven't really talked about pesticides, but I want to add something here. The pesticides have been shown to lower children's IQs. And in the animal kingdom, they are seeing hermaphrodite frogs, and coming about because of the feminizing effect.

We didn't really talk about boys too much. But we have a twin problem with precocious puberty in the girls, and the feminization of boys via chemicals in the environment that act like estrogens. And so, pesticides are one of the vehicles that do this. But also, the phthalates are feminizing on the boys. And the studies are showing that the male infants are having changed male genitalia. And the way it's changed is it's showing a feminization of that male baby which, you know, in our audience of mothers who already have children, that may not be relevant right this minute, but I'll tell you where it's relevant.

Mothers, have you noticed that they are now marketing to our teenage boys? They're marketing these products, these body scented products. And the marketing is very, very strongly suggesting, for example, that, you know, if the boys use these products, they can get not only one girl, but two girls. I mean, I have this in my slides for my doctors, it's really wild. And these products, if you look at them carefully, they not only contain phthalates, they are so strongly scented, they have lots of phthalates in them. And phthalates are decreasing testosterone. So, you may not...that problem may not lead to a precocious puberty in a boy, but the lack of testosterone most certainly leads to abnormal male development.

And so, that's something else that we want to consider in our homes. We want to think about the decrease in testosterone and sperm counts. And, I mean, the reproductive organs and systems in both boys and girls have been under attack for a while. And we are just now starting to see more of this. I wrote an article a couple of years ago for Thrive Global, in it where I basically...the title of it, if you want to look it up, is "The Handmaid's Tale Becomes a Reality." Because that is an Emmy Award-winning TV show that shows what happens when they polluted their environment with pesticides and chemicals. And they are now having trouble reproducing.

They have to get the handmaids in to be...someone who has been proven to have been able to carry a child. Basically they're outsourcing the baby-making, right? And this show is incredibly popular. And it boggles the imagination because people act like it's entertainment, but it's really not because this is what we're seeing in our patient population. We're seeing a rise in infertility and a rise in assisted fertility techniques. And we're seeing a rise in birth defects and a rise in, you know, developmental problems in our children. And so, all of this is stemming from these chemicals that have insidious negative implications at teeny-tiny doses, but that we're getting those teeny-tiny doses all the time.

And that's why, Katie, I wanna...you did say something that I do wanna kind of pounce on here. Air filters. Love air filters. 20 years ago when I started practicing medicine, I used to recommend them for my asthmatic patients. Not anymore. I think everybody should have them in their homes, in their bedrooms, in their children's bedrooms. So, at least when you're sleeping, you are able to filter out many of these things. We do not have good air. And the air in your home is between 5 and 10 times more toxic than your outdoor air, which is super toxic, and that's because your home is off-gassing a lot of different things.

But that's...we're getting a little bit away from what we were talking about. But I wanted to bring that in too because you mentioned it. So, air filters, avoiding plastic, avoiding scented products, dusting really well, vacuuming with a really good vacuum cleaner. Most of them are just, I don't know if you're aware of that, they are just...you vacuum and then it's like the dust just kind of goes out of the bag. You're not...you've gotta have

a good HEPA filter in there, so that when you are vacuuming you are truly getting rid and capturing the dust particles because the dust in your home is toxic. And then pesticide-free is something that you want to also focus on.

Katie: Totally agree. And I think, when it comes to endocrine disrupters and hormones in general, you know, getting rid of the bad stuff is a very important, big huge part of the equation. And then once you tackle that step, it's then figuring out ways to support the body as well. Because I think it's a balance when you're talking about holistic health of removing the bad and then giving the body the good. And so, I think that's another key area I would love to talk about and hear your thoughts. And a few of the things I've noticed and I do have kids in the almost puberty age, I haven't had any, like, make that jump yet, we're right on the cusp of it.

And so, thinking of things like supporting the body nutritionally with tons of micronutrients during that time, especially we know things like leafy greens bind to extra estrogen in the body. So, we wanna make sure our kids are getting a wide variety of different sources of micronutrients from ideally fresh local produce whenever possible. And just being cognizant of them getting enough nutrients because puberty, of course, is a time of increased demand on the body and very rapid growth. But I'm curious if you have any dietary or supplementation recommendations for both supporting kids from not going through puberty too early, which of course, you know, avoid processed foods and foods that contain plastic, like we talked about, but then also when it is the right time for them to go through puberty, how can we nutritionally support them best through that process?

Dr. Fine: I recommend, and this is kind of an area that I didn't focus on too much before, but when I said no plastic, that includes processed foods that are packaged in plastic. Because in Puerto Rico years ago, they were finding premature puberty in female girls. They were finding little girls sprouting breasts, and getting their periods at 2, 3, and 4 years old. So, that is way worse than what we're seeing here, right? And so, they tested these girls in Puerto Rico, what on earth is causing that? And they discovered it was phthalates, okay. And so, what they discovered, they had to kind of be detectives and say, "Well, where are the phthalates coming from?"

And one of the things they concluded was that Puerto Rico is an island, everything is shipped in, and everything is shipped in covered in plastic, plastic, plastic, plastic. So, your food being covered in plastic, your meats, your fat, fatty products like meats are being covered in plastic. You want to eat fresh. Well, okay, let's just go back to the meat. If you're buying meat, I recommend buying the grass-fed organic kinds of meats from the kind of place where it hasn't been sitting there in a case wrapped in plastic styrofoam on the bottom and plastic on top. Go to the kind of store that is just sitting open in a case. And then you can wrap it, or the butcher will wrap it in a butcher paper. And then, you know, you take it home and you cook it. And then that way, it's not just sitting in all of those wrappings of plastic for so long. So, I do recommend that.

Whole foods, fresh fruits, and vegetables for sure. I see that the children today are not really getting very many. And the problem is, as you alluded to, our detoxification systems in our bodies, they run on nutrients. The nutrients are the cofactors that...we have detoxification enzymes in our bodies, and if you are

nutritionally deficient in some of them, they're just not gonna run. And so, by saturating their diets with the micronutrients and the greens, in particular, I really like the dark leafy greens, but I really like broccoli, garlic is really good for supporting detox enzymes. I'm not a big fan of a lot of kale because kale is high in thallium, which is a heavy metal. And I'm seeing that the people who are eating a lot of green smoothies, because, of course, I test my patients, right? And so, a lot of the green smoothie eaters are coming up super high in thallium. And thallium is a very toxic heavy metal, and it's in our organic and commercial kale now.

And why is it there? Because certain chemicals are polluting the agricultural water. And when you say a vegetable or fruit is being grown organically, those organic standards do not include the kind of water that's being used. So, I'm having people be careful with kale right now. But I do love the isocyanides, I like the cruciferous vegetables. I like the cauliflower, the garlic, the berries are always really important, anthocyanidins and berries are really important for detox and good health. And so, your colored, I just said colored vegetables and I just realized cauliflower is white. The colored fruits and vegetables are what you really want to emphasize but cauliflower, it turns out, is a superfood, so don't let the white color fool you. Just make sure you get plenty of other colored fruits and vegetables in there as well.

And then I have people stay away from sweetened drinks, even fruit drinks. I don't like...I think having kids drink predominantly water is the way to go, purified water. And by the way, we need...your liver requires water to detoxify properly. And if you are dehydrated, you cannot detoxify properly. And I see a lot of people just not drinking enough water. I would have to say, most of the people I see are dehydrated. And so, let's not forget that because that's so simple, make your kids drink water.

So, did you have any other questions about the food? And then, of course...oh, one more thing, I do wanna say this, the food supply has gotten contaminated as well, not just with pesticides and herbicides. Do you know that the almonds are now being fumigated with propylene oxide? And I test for that. And so, I see that in my patients too. I just...it is just kind of criminal, people are eating almonds thinking they're good, that there's FDA requirement, that they've gotta be fumigated and that's kind of a nightmare. So, you have to be...you have to really do your homework and find the clean foods.

And sometimes the animal foods are the most highly contaminated with something called POP, persistent organic pollutants like PCBs. And so, you want to make sure that even if you are a meat-eating family, you want to make sure that those meats, like if you're gonna give salmon, it's gotta be wild salmon because the farm salmon is the highest source of PCBs in the diet. And butter is the next one. Butter, the epidemiologists, when they go into a new area and they want to sort of get a quick and dirty idea of how much PCBs are contaminating that area, they will test the local butter. And that would be something that's not dependent on whether or not that butter is organic. Because it's not a pesticide, it's something that is, even though PCBs have been banned since the '70s, they're in our earth's soil and water, and the cows are eating grass off of the earth.

So, it's not something that just getting organic butter is gonna make sure you don't get any PCBs. So, animal products are the high...and they've shown this in all the...when they look at women who are vegan versus

women who are not, one of the big differences they see is persistent organic pollutants. The vegans who aren't eating animal products are really far cleaner from that one thing. So, you wanna make sure there's plenty of plant foods in the diet. And if you're going to eat the meat, you want to get as clean as you can with as few wrappings as you can.

Katie: Exactly. Yeah. I think those are all very, very important tips.

This episode is sponsored by Everlywell, at-home lab tests that you can get without a doctor's order! I've used many of their tests and I like to recommend a couple that have been especially helpful. They have an at-home allergy test for 40 of the most common allergens using the same CLIA-certified labs used by Allergists/Doctors. The labs are reviewed by an independent physician and this lab test measures IgE levels of common allergens including pet dander, mold, trees, grasses, and more. But you can do it from your own home and through a finger stick. I also really like their food sensitivity tests that test for IgG reactions. This was a big key for me in my health recovery, as there were foods that didn't show up as an allergy that were causing inflammation. I used an elimination diet, but this food sensitivity test also filled in the missing piece of the puzzle for me. Through healing my gut, I've been able to remove all sensitivities except for eggs. Finding out I was highly sensitive to eggs made a huge difference for me, as I ate them often as an inexpensive protein source. I feel so much better now that I don't eat eggs and I would never have known that without this test! I also use their at-home Vitamin D test to keep an eye on those levels. Check out all of their tests at wellnessmama.com/go/everlywell. Use code MAMA10 for 10% off orders

This episode is sponsored by Joovv, a natural red light therapy in your very own home. We may not think of light when we think of essential nutrients that our body needs, but light is absolutely necessary! This is the reason I go outside as soon as possible after waking up in the morning, and the reason I spend time in front of my Joovv. Light is energy and our bodies need light in certain forms in order to sustain healthy cellular function. Red light in particular, especially in certain wavelengths, has very specific benefits for hair, skin, and cellular energy. I like Joovv because they are third-party tested for safety and performance and use a Patented modular design which allows you easily treat your whole body in under 20 minute and lets you use anything from a small system to a larger system that you would find in a Chiropractors office. Joovv uses clinically proven wavelengths of light that provide energy to the body. They have Bundle pricing discounts which allow you to save more money when purchasing larger setups. Get free shipping at joovv.com/wellnessmama and use code WELLNESSMAMA for a free gift!

Before we move on, just to kind of piggyback on what you just said. I think a couple of other areas as parents that we can focus on that are really helpful are, one area right now of emerging research is, for instance, light exposure. And this is an area people tend to maybe discount because we can't see the immediate effects or feel them as drastically as what we can feel what we eat, but there's all kinds of research about exposure to artificial light at certain times of day impacting hormone levels. And also lack of exposure to natural light, and how that can affect proper hormone patterns. And this is true in adults and also in children.

And so, I always try to mention this to parents because if you were talking about young children, fixing light patterns can really help their sleep quality and how long they sleep. If you're talking about teenagers, same thing, but it can also have an impact on those hormone shifts. And then for us as adults, we can see, and eye measuring can see differences in sleep quality. So, a tip there, I say is if possible, get outside and get your kids outside for at least half an hour as soon as possible after waking up because that natural light can signal important receptors in the back of the eye that are really important for not just circadian hormones like melatonin, but also for the proper hormone cycles, whether it be in children or adults.

And the same thing with avoiding artificial light at night. So this is another form of indoor pollution that often gets ignored, but when kids are getting exposure to blue light late into the evening, it confuses their body's natural hormone responses. So, avoiding screens, using natural forms of light that don't have blue light after dark, that's been another key that was really helpful to us. I'm curious if you have any tips as well for exercise because we know the stats that kids today are not moving as much as kids in previous generations, but then there's also evidence that, you know, too much exercise too young can be harmful. So, when we're talking about balancing hormones and supporting kids in these different ages, any advice for what types of exercise to focus on with them?

Dr. Fine: Oh, the exercise thing kind of plays right into what I said at the beginning of our talk where rising levels of fat and obesity is also contributing to precocious puberty. And so, it's very true once they took the physical ed out of the school, and the kids got really invested in their devices. Childhood Education has really dropped off a cliff and I don't think that's healthy. And by the way, you know, exercise is good for...it's good for brain development, and it's good for so many different things. I think, one of the things I've seen as a mother too is that the kids who...right now I'm talking girls, most girls and boys do some sort of sport when they're young like soccer. And what I noticed in the girls who once they hit puberty, they stopped and didn't pick up anything else, versus the ones who stuck with it or picked up a different sport, the girls who stopped are the ones who, honestly, by the end of high school they were already kind of plumping up, right?

And if you look back over, you know, my childhood, for example, there just wasn't...kids just played from the time...they had recess at school and then they played from the time they got home till it got dark. There was so much exercise in a day. And I believe, as human beings, we evolved on a lot of exercise. Now, it wasn't...as you alluded to, it wasn't like training for marathons every day, that's too much. But it was movement. And it was outside in the sunlight because I am seeing that research on natural sunlight on our skin. And it is very important not just for vitamin D, but those that full-spectrum lighting from the sun has health benefits that we're just now beginning to understand.

So, I'm a big advocate of kids spending a lot of time outside playing. It might not even be a sport, but you can play outside when you're little. It could be a sport. I don't like sports with the head injuries, like the heading in soccer. I'm not a big fan of head injuries, like, from football or soccer or things like that. But having said that, I like soccer because, you know, there's running and kicking, I think that's a good sport. So, I think it should...if they're not athletically inclined, I think riding a bicycle or playing outside is highly, highly recommended. And by the way, exercise is important for detox as well. It's part of the things that you're increasing circulation.

Hopefully, there's some sweating and that's how you can dump some of your toxins out. But exercise and sunlight are very, very important.

The blue light thing is really key too because the kids are staying on their devices late into the night, and then that messes up their sleep. And you've got to have proper sleep. At any stage in your life, you've gotta have proper sleep or your body doesn't work right. Guess what's one of the things our bodies do in sleep? They detox. There's no...they don't have to metabolize or digest your food. They don't have to, like, send energy to your limbs to move. Your body is working on detox while you sleep. Your skin, your brain is detoxing while you sleep. And so, we have to naturally maximize our body's ability to detox on its own, as well as avoid the things that we know are gonna make us go in the wrong direction. And then thirdly, we need to buckle down and just, you know, get the proper guidance to do a really good detoxification several times, I would say, in your life.

Katie: Definitely. Yeah, I definitely agree with that. Are there any supplements offhand that come to mind that can help either with avoiding precocious puberty or that are helpful during puberty? And I know, I got one question from a reader. There's an additive called inositol I think that's used in certain teen multivitamins, and if that's safe or recommended or not? I know my default with my kids right now is to focus on just gut health, so I give them high-quality probiotics and prebiotics. And then also, just supporting again from a nutrient perspective with as much whole foods as possible, and making sure they're getting enough protein which supports proper hormones, but any other suggestions you would make?

Dr. Fine: You know, it's really difficult to make a broad-spectrum recommendation for supplements. Because when I see children in my practice, it's like they're coming to me for a reason, and so everything I do is very specific to that one person. And so, to come up with something broad-spectrum and say everybody should take this. Really, I think, a probiotic is a good idea, Katie. I think gut health is super important. But beyond that, I'm a little bit...especially with the kids, I really like to push the good food, the nutritious food like you are. I really like to push that and not... I remember using, like, powdered greens, you know, with my kids and powdered fruit. I did use something like that. But without knowing what... I mean, the kids today are really having a lot of health challenges. And so, a lot of them could benefit from supplements. But to just say every kid, every preteen or teen needs a certain supplement, I don't think I would be comfortable with that. Except for probiotics, I think that you could make a strong case for that. And, you know, as long as it was a really good one.

Katie: Absolutely. And I will also say one that I do with my kids, I order at-home tests for vitamin D. So, even if you're not, can take the kids in for a full workup which I actually would recommend that as well, but I do test all of my kids for vitamin D and then make sure they're either getting in the sun or getting vitamin D. Because we know vitamin D is actually a pre-hormone, not just a vitamin, and so that one seems extremely essential for proper hormone regulation. I'm guessing you probably see that in your patients as well, low vitamin D levels correlating with hormone issues.

Dr. Fine: Well, what I see, I've practiced in Arizona and Southern California for my whole 20-year practice. And I just was so shocked to see how low everybody's vitamin D was. I just, I mean, we're in sunny areas, I just can't understand it, except that nobody's outside. But, yes. Yes, I have seen that and there are other issues with low vitamin D having to do with immune status and immune health that are also very important. I'm curious with your...well, you probably don't wanna say, but the vitamin D issue is such a conundrum because I will tell you this, in Arizona, I used to have my patients commit to 10 minutes of sun on as much skin as they could bear around noon, which is a certain time of the day when certain rays were at its highest.

And, you know, 10 minutes, that's not a lot. And, much to my surprise, when I retested them, it didn't really bring it up. And I just found that shocking, that the vitamin D level... So, I will say that I've had to supplement lots...probably most of my patients with vitamin D supplementation, even though I theoretically and philosophically would rather people get it from the sun. For some reason, I'm not seeing sunlight producing the levels of vitamin D that I would like to see in people. And I mean, I've seen levels as low as 17 in my cancer patients, right? You know, that's pretty low.

Katie: Yeah, I think this is definitely something that's epidemic. And I know it's controversial, but I do spend time daily in the sun, not ever to burn, but just to get vitamin D. And I think healthy sun exposure is really important. And I do that with my kids as well. But I'm also, I will supplement with vitamin D, and also along with it, vitamin K at times just if their levels are low. Just because I know how important that one is for the immune system, for hormones, for so many aspects of that. And we're getting really close to the end of our time. We might have to do a whole other episode just on precocious puberty at some point, but I know there's a lot...the other aspect of this that's not just specifically health and lab-related is, how can we support our kids in this age with body image and emerging from puberty with a healthy body image on the other side? And I'm curious how you navigated that with your own kids, especially since I'm still in this phase and haven't really figured it out totally myself yet.

Dr. Fine: Oh, that's such a good subject. Oh, that is so, so tricky, because we're fighting media portrayals of unattainable...especially for the girls, unattainable body images. And the girls are starting to think they're fat as young as age 8 or 9. So, I have a daughter and a son, so I got to do both. I really...how did I do it? I just never focused on...I tried to build body confidence by looking at and praising how well the body works, like "Look at you run. Look at you go. Oh, you wanna take karate?" Really praising how the body functions as opposed to how it looks. And so, there really wasn't in my bringing up my kids, there really wasn't...I didn't really emphasize, "Oh, you look so beautiful today." Right? I didn't really talk about. I didn't really say that. I focused on other attributes.

And I think I did it on purpose because I know that even when I was growing up, there was all kinds of body image, and anorexia, and bulimia, and all of this stuff, and it seems to start...well, years ago, it started in teenagerhood, but now it's like preteens and young teens are starting, men and women are starting to have these unrealistic ideas of how their body should look. I think that the media today is more accepting of diverse body types than ever before. And I think that's really a good thing. But I would just focus on body functionality, body health, you know, other things instead of, "Did you gain weight?" You know, "That dress is looking really tight on you." I would never point that out to a girl.

Katie: For sure. I have taken the same approach with my daughters and my sons. I'm just focusing on the body being an amazing, incredible tool and like a machine that we can use to do incredible things versus how it looks. And it's sad, but I had to realize this and learn this lesson as an adult over even the last few years, I would say is when I finally actually learned it and started to love my own body for what it can do and not just how it looks, or what I perceived as how it didn't look, how it was supposed to. And that's even after growing six babies from scratch in my body, and all of these other things it had done. It took me being that old and working through a bunch of trauma to get to that point where I could actually appreciate it. So, I think the mindset piece is key as well. And hopefully, giving our kids a foundation to respect their bodies and to treat them well out of respect and love, not to pry them out of lack, it's a big key.

Dr. Fine: Yes, I agree. Good job.

Katie: Awesome. Well, our interview has flown by. I know that you have a gift that you wanna give to the subscribers which I will put in the show notes that I don't say your email or anything out loud and that you also have a course all about detoxification for people who this is very top of mind for whether it be preconception or precocious puberty, whatever it may be. So, those links will be in the show notes at wellnessmama.fm. And I know you're also available online and at drannemarietine.com is that right?

Dr. Fine: Yeah, drannemarietine.com, that's my website. And, yeah, I'm offering a complimentary 15-minute call to see if this is a good fit for exploring how a personalized detox can work for you. I'm also, on my website, I just wanna point out that my...the book that I wrote and the products that I have are in the realm of clean beauty. So that's another passion for me, and something I didn't bring up so much with the boys and girls. But, wow, if they're putting stuff on their face, the girls' makeup, especially the teen makeup is very toxic. And you've gotta take a really strong look at that. And the boys' products are, like I mentioned, varying into a very, very disturbing trend. And so, we have to be careful with that too.

Katie: I agree. Well, thank you so much. This has been such an information-packed episode. Hopefully, it helps a lot of parents and a lot of teenagers and preteens as well. And I'm really appreciative of your time today.

Dr. Fine: Well, thanks, Katie. Thanks for having me. It was fun.

Katie: And thanks to all of you as always for listening, for sharing your most valuable asset, your time with both of us today. We're very grateful that you did. And I hope that you will join me again on the next episode of "The Wellness Mama Podcast."

If you're enjoying these interviews, would you please take two minutes to leave a rating or review on iTunes for me? Doing this helps more people to find the podcast, which means even more moms and families could benefit from the information. I really appreciate your time, and thanks as always for listening.