



## **Transcript Details**

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Is the Rise of Allergies Due to Missing Gut Microbiomes?

# Dr. McDonough:

According to the Asthma and Allergy Foundation of America, more than 6 million children under the age of 18 have asthma; more than 50 million Americans have environmental or food allergies. But is there a connection, and what is that connection?

Hi, I'm Dr. Brian McDonough, and welcome to Primary Care Today on ReachMD. Today, I have a very special guest. My guest is Dr. Tanya Altmann. Dr. Altmann is a pediatrician, and in addition to that, she works as the Editor in Chief of the American Academy of Pediatrics parenting books. And I want to, first of all, thank you for joining us on the program.

#### Dr. Altmann:

Thank you for having me.

## Dr. McDonough:

My first question, Dr. Altmann, is—we talk about asthma in children; it is quite common—from your perspective, just how common is it in a typical pediatrician's day?

# Dr. Altmann:

Well, you're right; it is one of the more common reasons that patients visit the pediatric office. I saw a few wheezing kids today, so I'd say it definitely is one of the more common illnesses or conditions that we see, and it is increasing. I've been practicing now for almost 20 years, and I feel that I see more asthma and allergies and eczema than I did when I was in training at UCLA over 15 years ago.

## Dr. McDonough:

Of course, our audience, as you know, are primary care physicians, so there are pediatricians, family doctors, all sorts listening to the program. Why do you think we're seeing an increase of allergies and asthma among children today?

# Dr. Altmann:

I think there are many factors that play a role and contribute to this rise of allergies and asthma, but recent research and what I'm very interested in points to the gut microbiome and how it plays a significant role in a child's development and their immune system. There's been a lot of great data and research coming out of UC Davis recently, and one of the studies showed that 9 out of 10 US babies today are born missing a very important, beneficial, good gut bacteria called B. infantis, and it's this special bifidobacteria that is needed to protect the gut early on, so that way all the good gut bacteria grows and the bad gut bacteria doesn't. And when you look at other independent research, it has linked the development of eczema and allergies and asthma to older kids that are missing this good gut bacteria early on and have an overgrowth of the bad gut bacteria. So what I'm interested in doing is helping explain to parents about the gut microbiome and what they can do to help.

You know, it's not our fault. I'm a mom. I had 3 babies the normal way. And even if moms do everything right today, even if they have a healthy pregnancy, if they have a vaginal delivery, if they poop on the delivery table—because we know that's how the babies actually get the good gut bacteria—they may still not receive this good bifidobacteria. In fact, we know that 9 out of 10 babies in the US don't, and that's because the moms don't have it to pass on to their babies anymore.

# Dr. McDonough:

You were mentioning, I know, in some of the work I've seen you write—you talked about how our grandparents' generation may have been quite different. There were more people with, I guess you could call it, biome?

Dr. Altmann:





Exactly. There's been sort of a generational decline of good gut microbiome, and the reasons are due to all of these amazing medical interventions that we have which can save people, such as antibiotics and C-sections, but sometimes there can be some unwanted, negative effects, and with more C-sections and more antibiotics, and sometimes if people don't breastfeed and choose formula, this has caused this sort of generational decline of the good gut bacteria, and when moms don't have it to pass on to their babies, the babies just aren't born with it, and they are sort of starting out 1 step behind.

## Dr. McDonough:

What sort of things can we do to enhance nutrition for a baby?

#### Dr. Altmann:

That's a really important question. One of the first things that I recommend all moms do is breastfeed because breast milk is really the ideal form of nutrition for a newborn, but that said, we also have studies that show that babies can no longer utilize all of that important nutrition in breast milk anymore, especially if they don't have the right gut bacteria. There's these special carbohydrates called human milk oligosaccharides that make up about 15% of breast milk, and that's what feeds all that good gut bacteria, so if you don't have the right bifidobacteria, your baby just poops out all those important human milk oligosaccharides. So by supplementing your newborn with a daily probiotic like Evivo, the B. infantis, we have research that shows that a daily probiotic can repopulate the baby's gut and actually stick around and help your baby absorb and utilize all of that important nutrition in breast milk. And I think this is really important, because when you look at adult probiotic studies, most adult GI doctors will say when you're taking probiotics, they work, but we really don't have a lot of data on do they stick around a day or 2 or week or month after you stop taking them, but now in newborns we actually do. And at UC Davis, they have this clinical trial where they were giving newborns B. infantis, Evivo, along with breast milk, and even months after the babies stopped consuming the B. infantis, stopped consuming breast milk, they still had their gut populated with this very important good gut bacteria, and they had very low levels of all the bad gut bacteria that we don't want kids to have, such as staph and strep and E. coli and clostridia.

#### Dr. McDonough:

You know, you talk a little bit about the use of probiotics and this type of treatment. Where is it right now in the science? I know there have been some studies done, some good studies, and other studies years ago were somewhat questionable. Just in general, how important are they in medical care now, and what do you see as cutting edge?

#### Dr. Altmann:

I think, depending on how many doctors you interview, you might get sort of split results. I use a lot of probiotics in my practice, and I think we do have good data when it comes to older kids with diarrhea due to antibiotics that probiotics can help. When it comes to kids and adults too who have stomach infections—rotavirus, norovirus—and you give them probiotics, it can help decrease the course of their illness, and I think the research is really emerging more and more every day on the relation to the gut microbiome and probiotics in terms of preventing a lot of diseases that adults get—inflammatory conditions, allergies, cancer. But I think this new data coming out of UC Davis is just so exciting, and that's why I sort of joined forces with them, because I wanted to learn more about it and I wanted to start using Evivo in my practice, because I thought, wow, if we can correct the gut microbiome in all these babies in the clinical trial, to me that's just so exciting to think about a future where kids hopefully won't have as much disease and illness and allergies.

# Dr. McDonough:

I'm asked the question a lot—I do media work but also in my own practice—why are we seeing more issues like peanut allergy and these things? Is it because of the antibiotics, the foods we're eating, animals getting antibiotics? What do you think is happening?

#### Dr. Altmann

I think it's multifactorial, which is always a good answer, right, when you're talking about why things occur?

## Dr. McDonough:

Right.

## Dr. Altmann:

But I do think the gut microbiome plays a significant role. There's also been other theories in the past, such as the hygiene hypothesis, which sort of goes along with the gut microbiome, in fact—if we're keeping our kids too clean, if they're not playing in the dirt. Gosh, there's been studies about kids that play in the dirt, families that don't use dishwashers and they wash their dishes by hand. They have decreased amounts of allergies, and that's probably because the kids are just exposed to more things when they are young and they are not kept as clean.

I think for a while, as pediatricians and allergists too, we were recommending that parents avoided all those allergic-type foods early on, which likely contributed to the problem, and now we know... The research has sort of shifted, and now the recommendations are go





ahead and starting around 4 to 6 months feed babies all of those allergic-type foods. And I wrote about this in my *What to Feed Your Baby* book and *Baby and Toddler Basics*, my AAP book, about how I start peanut butter oatmeal at 4 to 6 months of age and salmon and really try to expose babies to all those healthy, important nutrients, so that way their system will get used to it and they hopefully won't develop an allergy. And I think that in combination with the right gut microbiome, with the daily B. infantis probiotic, really can help and hopefully decrease the number of kids we see with food allergies.

## Dr. McDonough:

Dr. Tanya Altmann is a pediatrician. She's Editor in Chief of the American Academy of Pediatrics parenting books. By the way, there are quite a few. Her most recent is *What to Feed Your Baby*, *Baby and Toddler Basics*—that was February 2018—but also *Mommy Calls*, and you also were Editor in Chief for *The Wonder Years* and *Caring for Your Baby* and *Young Child: Birth to Age 5*. The interest in writing and editing, where did that come from?

#### Dr. Altmann:

You know, I think back when I was in residency at UCLA, I realized that I was saying the same things over and over again when I was a senior resident teaching the interns, and that's when I sort of started taking notes and writing these little booklets for the interns to study, which is what sort of turned into *Mommy Calls* and later *Baby and Toddler Basics*, because even though every family is different and I really like to treat every child as an individual, there are a lot of common threads, and I found that by writing a book, by giving a new segment, I could reach so many more people than I could every day in my office and hopefully help answer those questions that parents have.

## Dr. McDonough:

I'm based on the East Coast, but UCLA definitely has an excellent medical center. I went out there many... We probably didn't cross paths. It was before you were there. But there was a doctor named Jim Puffer, who was Chairman of Family Medicine at the time, who was heavily involved in sports medicine. And, obviously, UCLA continues to be heavily involved in sports medicine and cutting-edge things, but it was really interesting how, at least on the West Coast, many of these theories and thoughts, they come of age a little quicker than they might on the East Coast. Have you seen that?

# (Laughter)

#### Dr. Altmann:

You know, I like to think we're a little more forward-thinking here. I do remember Dr. Puffer. I trained in the late '90s, and he was there, and he did train many of my colleagues who do sports medicine. So I think that all universities... And whenever you get a lot of great doctors together doing research, they're going to come up with some new ideas and thoughts, and maybe it's just out on the West Coast we're a little more laid back and share our thoughts and try them out, but I think a lot of important research and data comes out of both coasts. And I love working with my colleagues on the East Coast too and sharing ideas and getting their opinions as things evolve.

# Dr. McDonough:

I'm sure a lot of our... Since we have a physician audience, how did you build the relationship? Obviously, you're a pediatrician, so you're probably a member of the American Academy of Pediatrics, but how did you build a relationship with the group and get involved, because certainly that gives a lot of weight to what you're writing because we know it has the organization's stamp of approval?

### Dr. Altmann:

You know, that's a great question, and I'd love to talk to residents and young physicians and try to get them more involved. When I was in residency at UCLA, they were looking for a rep for the local American Academy of Pediatrics chapter, and I thought, "Wow, that sounds interesting. I want to learn more." And I started going to these really boring board meetings (laughter) and no one else wanted to go, and so I was nominated. But it's an amazing organization, and I love collaborating with doctors all across the country, and I feel that that's really where all the latest and greatest in terms of recommendations are coming to play. And writing books for the American Academy of Pediatrics, I feel, is also something that I can do. I always say there's not a lot that I'm good at, but writing books and talking to parents and being a pediatrician is, so I'd like to help everyone, even more than just those families in my community, and this is something that I'm able to do to help others. And I also love teaching all of the residents and young pediatricians out there and getting them involved as well, so if any of you are listening, please join the American Academy of Pediatrics. Whatever you're interested in, we have so many sections and committees, and reach out to me as well if you're interested in writing and doing media.

## Dr. McDonough:

It's Dr. Tanya Altmann. She's a pediatrician. And I'm sure you can probably be reached through the American Academy of Pediatrics as well as anybody can be reached now online. It's pretty easy in today's world, but it's a great opportunity to do that. And if you have any questions, you can also reach out to ReachMD. We would have contact information as well.





Only a couple minutes left in our program. I wanted to ask you: What do you wish we had talked about in this subject that I didn't bring up as far as asthma and kids and diet and those sorts of things?

#### Dr. Altmann

I think we covered a lot of great information. I'd like to remind parents that with babies, what happens in the first 6 months of life, in the first 12 months of life, is so important, so the breastfeeding, the probiotics, the foods that you introduce. And I really think that by choosing the right foods, what I call my 11 essential foods for babies, and introducing them to all these healthy foods and keeping away all the processed foods and sugars and artificial foods can really help them not only grow up to be healthier, but it also will sort of cultivate their taste buds and get them to like eating healthy foods and also be non picky eaters in the future. Spend some extra time during that first year and really be cautious of what you give your kids, because the first time you give them that juice or cake, that's all they're going to want, but the longer you stick with the basics, the real foods, that's what they'll grow up to eat when they get older.

## Dr. McDonough:

Well, Dr. Tanya Altmann, I want to thank you so much for taking the time to be a guest on the program.

#### Dr. Altmann

Well, thank you for having me. It was a lot of fun.

#### Dr. McDonough:

If you missed any of this discussion, you can visit ReachMD.com/PrimaryCareToday. You can download the podcast. You can learn more on the series. This will be available, again, if you didn't hear the whole thing, you want colleagues to hear it. I'm Dr. Brian McDonough. Thank you very much for listening.