Introduction of Food to Infants: Preventing Peanut Allergies

Transcript Details

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Dr. Domino:
Welcome, you're listening to Pri-Med's podcast series, Frankly Speaking, and I'm your host, Frank Domino. I'm a family physician here at the University of Massachusetts Medical School in Western Massachusetts. Joining me today is Susan Feeney, she is an Assistant Professor in the Graduate School of Nursing at the University of Massachusetts Medical School here in Worcester. She did her undergraduate training at McGill and has done her training around the United States. Since coming here, she is focusing on preventive strategies in health care, adolescent health, and evidence-based practice. We'll be speaking today about feeding children in the first year of life. Welcome to the show, Susan.

Susan Feeney:
Good to be here. Thank you, Frank.

Dr. Domino:
Our objectives for today's session are to talk a bit about feeding children in the first year of life, look specifically at children who are at high risk for atopic disorders, and conclude with some take home messages for both ourselves in our clinical practice and parents. So, Susan, can you talk a bit about what the American Academy of Pediatrics recommends currently with regards to introductions of solids to children in the first year of life?

Susan Feeney:
Sure. There's been actually a lot of work on this in the last few years, and the recommendations are really to begin what they call complementary feeding, starting to be somewhere between four and six months of age. There's a strong push for exclusive breastfeeding and then to introduce food slowly over that time. The World Health Association, interesting, has really come out with strong wording to keep breastfeeding exclusive until six months, but the American Academy has said four to six months. What's interesting is there's been a lot of research into food allergies. And we know that we've all, if you've practiced in this field for any length of time, there are been certain foods that we've been very protective of: Eggs, peanut butter, and possibly waiting until 12 months of age to introduce. There's been some research that has come forward that showed that that might be problematic, and that the withholding of some of that may actually cause or may be causative in developing allergies in kids.

Dr. Domino:
So, actually, we've been doing it may be wrong. Withholding has actually made the situation worse.

Susan Feeney:
It appears that that might be the case. Let me just talk about a trial and you may have heard of it. There was a trial back in 2008 that was out of England. It was an observational study actually, and it was on Ashkenazi Jewish kids. And they had a cohort of kids who were born and raised in London, and a cohort of kids who were born and raised in Tel Aviv. And they found that the peanut allergy was significantly less in the kids from Tel Aviv, as opposed to the kids born and raised in the UK. And this was interesting, because you had genetically very similar folks, same sort of risk factors you would imagine. And what they looked at is there was a withholding of peanuts in UK, that the strategy and the policy for the pediatrics there was somewhere between one to two years of introduction at age... Introducing at one to two years.

But in Tel Aviv, the kids actually started eating a product, I think it's called Bamba, that's a peanut, as early as six months. So that led to the LEAP trial, Learning Early Access to Peanuts, or something, where they had a very strict protocol and they looked at kids, general population, and those kids who were high risk, kids with atopic dermatitis, and that type... Atopic, rather dermatitis, and they found that by introducing peanuts between, starting at four months to 11 months that there was a significant decrease in peanut allergies, or what they would said it, or an increase in peanut tolerance. The one thing that came across that stunned me, because as a primary care provider, we are intimately involved with the care of our patients, and we want to do what's best for them. And what I found is that right now, there's 1-3% peanut allergies in developing countries, and if you have children in school, it seems like it's much greater than that. I have friends who are school nurses and it runs the cafeteria.

Dr. Domino:
It does.

Susan Feeney:
And what I found in the research is that only about 25% of these kids will "outgrow" this allergy. So 75% of these kids will have this peanut allergy for their life, and it will impact them in every way, social, environmental, and health wise, so primary prevention is really the key. And the LEAP trial has indicated that even for kids we consider high risk, that we should really think about this early introduction. And another thing that came out in the literature that I was looking at, is that a recent study showed only that 0.5% of US kids were introduced to peanuts at five months and only 20% by 12 months. So we're not seeing this policy or this American Academy policy integrated into practice, which we know is not uncommon. Right?

Dr. Domino:
It takes time.

Susan Feeney:
It does take time, but it would have a significant impact on, we think, on the development of these allergies.

Dr. Domino:
So it sounds like from what you're saying, that the American Academy of Pediatrics and the literature support early introduction of peanuts or peanut-based foods. And when do you start telling parents? Do you tell them at six months? Do you tell them before that? Do you tell them at nine months?

Susan Feeney:
I usually start with, I try to keep them... The introduction of food, according to the policy, four to six months. And that peanuts at about six months. And what you do see sometimes, is a pushback from parents, because they hear about this especially folks who feel they may have a child who could be sensitive. Maybe that they have a family member, or good friends that have a peanut allergy, so there's the pushback against the common feeling and belief in the practice. But that's generally what we try to do in our practice, is to introduce that.

Dr. Domino:
Feeding in the first year of life is very much about a cultural belief, and a mindset...

Susan Feeney:
Absolutely.

Dr. Domino:
Very possibly what a grandparent who might live nearby might have to say. So things change. I remember a parallel 20 years ago when we were again pushing folks to stick with breastfeeding and so many grandparents were saying, "You know, well really, you need to think about getting

that formula in there," or, "Introducing milk sooner" or whatever.

Susan Feeney:
Yeah. No, it is. Of course I'm thinking about, having been a labor and delivery nurse for years, you know Back to Sleep. You never put the baby on their back. I mean that was terrible. They would aspirate. And so now when you had all this data that, no, actually that's going to be safer and less SIDS, you were fighting the providers, and the nurses, and so this is a tough, tough thing, but when you realize that the increase in, of course, in some of the data I looked at, the increase in peanut tolerance goes up as high as 85% to 95% in these kids when they have the early introduction. The thought of preventing this is such a great concept, and the thing that I find concerning, I mean it's just typical of everything in health care is that trying to introduce the data into practice can be such an uphill battle.

Dr. Domino:
So just to recap, it looks like there are very good data and American Academy of Pediatrics support for the introduction of peanuts in all children, at or by six months of age. Now, there are children with eczema by that age, and that sort of thing. Any thoughts on, is there any value to aggressive skin testing of these children? Or any other specialty referrals or blood work?

Susan Feeney:
Well, what recently came out... There's a interim report that just came out in 2015 from the American Academy, and we're expecting something very soon from a joint paper, from the allergy and asthma folks and pediatrics, with firm guidelines. But the interim basically says that there really is level one evidence that this is a positive thing to do, even with children who have known risks, such as eczema. What they do say is, if you have a child, let's say, with severe eczema, and or a family history that is worrisome, that certainly, those kids should be either sent to an allergist for skin testing, or if you have a pediatric provider who's very comfortable with this concept, that they can do a food challenge in their office as long as they have the requisite treatment. But what was interesting in the studies that I saw was that the skin tests weren't always predictive of the allergy.

So there you are, with, is it 4 millimeters wheal, is it 8 millimeters? And then they said it was really only predictive in the study of the avoidance arm, not in the kids who'd been exposed. So again, we're going to have data or results on a test that's going to be equivocal and not really able to work on it. So I think there's going to be more information coming out, and I'm looking forward to the guidelines because I think what we really need is, if we send the child to an allergist, what is the allergist going to be able to give them as far as... Except it would be, hopefully, that they would do the exposure in their office, and that you'd have a little more expertise, I guess.

Dr. Domino:
In managing an acute problem.

Susan Feeney:
Exactly. If there was a reaction. So this is really, from what I can see, a guideline that we should be really enforcing. The one thing that did come out that was interesting in the literature that I looked at, there was a reassessment of the LEAP data. So there was a secondary analysis. And what these researchers found, it was just published this month, was that the age, we've been saying four to six months for introduction, or four to 11 months, that when they broke it down and they looked at the actual tolerance to peanuts, that there was actually increased tolerance between six and 11 months, that that was 95% probability of tolerance. Whereas if you were four to six, it was more of an 85%. And there does seem to be a sweet spot when you look at food allergies, that kids who are exposed to foods prior to four months tend to have a little bit higher allergy. So that I think is a very important thing for us to remember. And we know that that's cultural. Grandma wants them to have a little rice cereal, he's got a little gas, put it in his formula, or mix it with his breast milk, so that's going to be probably an issue, but I think for us to think about, really thinking about maybe those higher allergen foods not starting until six months. And I think that data will be incorporated in the guidelines.

Dr. Domino:
And I think that that's being played out in other foods as well. We now have good data that shows that eggs should be introduced sometime between six and 12 months, and probably fish as well. So, to summarize what we've discussed today, there's an evolving bit of data around the frequency of food allergies and things we can do to try to mitigate them. Probably most importantly is if you've got a strong history of atopic disorders or eczema, introduction of peanut-based foods at or around six months makes the most sense. Maybe a few other things we used to delay as well, within the six to 12-month frame. And of course, trying hard to get parents to breastfeed, if not exclusively, a majority of the time through six months of age, probably going to lead to the best outcomes. Any final thoughts, Susan?

Susan Feeney:
It's just... It's an interesting thing as a provider because we do bombard our patients with a lot of data. Things come in all the time and then sometimes we have to back track, "Oh gee, we thought this was a good plan but it wasn't." So it's all about the relationship with the patient and the trust that they develop, and so as to be as honest as possible and... But this... It goes back to prevention and I think that's really important is that we want to prevent these kinds of things and just spending the time and developing the relationship with your families, so that they can make those changes or incorporate the data and see you as a trusted figure I think is really important.

Dr. Domino:
Thank you very much, Susan, I really appreciate you coming in today. And thank you for listening today. This is Frank Domino from the University of Massachusetts Medical School on Pri-Med's Frankly Speaking.