Kids' diets affect their stomachs and intestinal tracts–and vice versa

The myths and realities of diets and kids' GI problems

By Maria Oliva-Hemker, MD and Kathleen Zelman, RDN

Kathleen: [00:00:00] Welcome to the Nutrition for Kids podcast. Today we have an exciting episode that I'm sure will resonate with lots of parents. Most of us understand that kids are susceptible to illnesses. They go to school, they go to daycare, and they have routine stomach aches and diarrhea and constipation and vomiting.

But sometimes parents are not sure when these are serious conditions or when they're just routine ailments and when they should see the doctor. We're also gonna address today the common reflux and vomiting that's often found in babies and how to manage, how to do some really easy things and how to prevent having to go to the doctor often.

With us is Dr. Maria Oliva-Hemker. She is the director of the Division of Pediatric Gastroenterology, hepatology and [00:01:00] Nutrition at John Hopkins University School of Medicine. She's also the vice dean for the faculty there, overseeing more than 5,000 faculty. She is also one of our distinguished members of the Nutrition4Kids' Advisory Board.

She's a recognized leader in multiple organizations. She's been honored with multiple awards. I encourage you to read her bio, which is linked in the podcast. She was top Doctor from US News and World Report as just one of the many. She has more than 110 peer reviewed publications. She gives presentations all over the world.

Editor in chief of the book, *Your Child with Inflammatory Bowel Disease: a Family Guide for Caregiving*. We are so honored to have with us today, Dr. Maria Oliva Hemker. Welcome Doctor.

Dr Maria: Oliva. Thank you so much, Kathleen. It's a pleasure to be with you today.

Kathleen: Oh, so happy you're here. Well, let's jump right in. The topic that we're really trying to [00:02:00] talk about today are those tummy troubles.

You know how to manage those GI problems in children. Why don't we start with what are the most common problems that you see and pediatricians and pediatric gastroenterologists see in the office?

Dr Maria: Well, I would say that certainly one of the most common problems that pediatricians often see and, they're certainly the first line of medical help for parents, is just routine, kind of vomiting and diarrhea.

Which is very common, especially in the younger children where they're going to have probably at least maybe a couple of episodes, maybe even more of diarrhea. And often, you know, vomiting comes along with that. So those are two pretty common symptoms that our GI tract does, when it's upset and it's certainly common to parents with children of all ages.

Kathleen: [00:03:00] So all ages. So from babies to teenagers, these, you know, it happens often. How would you describe the frequency with which normal would be?

Dr Maria: So in terms of episodes of vomiting and diarrhea, yes. Well, you know, it's probably seasonal to a certain extent because most episodes of vomiting and diarrhea in the United States and in children are viral, caused by viral infections. And we certainly know that when school time comes right during the school year and especially during the winter months, that those are probably peak times where there are a lot of viruses going around and being passed around. So those are probably during the year, the times that parents are more likely to see their children develop diarrhea and vomiting.

I guess, you know, there are certainly other reasons [00:04:00] like food poisoning depending on whether, you know, the child has eaten something new or, if you've gone on a trip or gone out of the United States or somewhere, you may also end up having diarrhea. And in the vast majority of all those cases, they really are due to infections of some sort.

And the expectation is that hopefully, you know, within an otherwise healthy child that the episodes will resolve themselves within a few days.

Kathleen: So a few days. If it's resolved, then there's no reason to be concerned. So during those few days, how do you manage that vomiting and diarrhea? What are some of the good take home tips that parents should be aware of?

Dr Maria: What I would say is that, again, in a child who's otherwise healthy, right, who, who developed some diarrhea and vomiting, and we can talk in just a little bit, what might be, some alarm signs or [00:05:00] reasons to reach out, you know, to their pediatrician. But if it's, you know, the stools have become loose, they're occurring maybe instead of the child's typical pattern of maybe once or twice a day, they're now maybe having three, four, or five loose stools a day, and possibly some vomiting or not feeling like they want to eat,

that the main goal is to make sure that the child doesn't get dehydrated. Mm-Hmm. Right. Which is something that can certainly happen if they're having diarrhea or if they're, or if they're vomiting. And so keeping a child well hydrated is the goal.

If the child is, again, otherwise healthy, is pretty normal weight for them, missing a meal or two because they're nauseous or because they have some vomiting won't hurt. The important thing is to keep them hydrated and make sure that they're taking enough liquids, during that [00:06:00] day, to prevent the dehydration from happening.

Kathleen: So do you like Pedialyte or Gatorade type products? Or is water good enough?

Dr Maria: Yep. So for infants, we want to stay away from water. So infants right from kind of newborns up to about a year of age. We really don't want to be using regular water. And the best thing to do is actually continue, if the infants are being breast fed, to continue with breast milk or formula.

But this is also where the commercial rehydration solutions can also be used because they contain, you know, a balance of sugar and salts that are good for children of that age. So, for under a year of age, I would say to stick with the commercial rehydration solutions or continue breastfeeding or formula feeding.

If that's what's happening with the baby, when they're above a year of age, then there's a [00:07:00] wider variety of options for parents. They can certainly still use the commercial oral rehydration solutions. They come as liquid forms, or popsicles. And this is where the sports drinks like a Gatorade can be used, or certainly juices can also be used.

But in general, I would say if, if you're using a juice that it's probably best to dilute that with water, half and half, or even dilute some, depending on what the sports drinks is. I know you know that many of them contain large amounts of sugar. And sometimes having sugar that's not well absorbed if your GI tract is in a bit of distress from an infection may actually kind of appear, may worsen the diarrhea.

So it's best to make sure that, that you're replacing loss fluids with drinks that don't contain a lot of sugar.

Kathleen: [00:08:00] And then if you're gonna use something like juice, you're probably going to use an apple juice or a grape juice that you dilute, not, certainly not something like an orange juice. Correct?

Dr Maria: Yes. Yeah, exactly right. What I will say is that, you know, really for most children that have mild diarrhea, so you know, maybe a few loose stools per day, in general, they really don't have to change their diet that much. As long as they want to continue to eat and, not have vomiting, you know, that they just have the diarrhea. Because what we want to make sure is that, you know, as a parent, you don't overly alter their diet for several days so that they actually are not getting, you know, good calories. To, you know, so not, you know, making unnecessary changes to their diet, I think is important, in the child that just has mild symptoms.

Kathleen: But you wouldn't want them eating hot dogs or something like that, right?

Dr Maria: Right. No, I [00:09:00] don't think I'd want them to eat hot dogs in general. I don't know about the nutrition of hot dogs. I'll leave that to you. But, for, you know, for example, the Brat Diet.

Kathleen: Oh, I remember that. Bananas, right?

Dr Maria: Bananas, rice, yeah. Apple sauce and toast, which was once, you know, very much recommended. I think, in recent times, it isn't as recommended as it used to be. The American Academy of Pediatrics, you know, is not recommending a diet like that any more because it's, you know, really they're low and hat diet is low in fiber, protein, and fat.

And giving children Brat diets for days, you know, we realized that they weren't receiving good nutrition to help their GI tract recover or themselves. And so really as soon as a child is feeling, [00:10:00] you know, pretty well, and again, with mild symptoms, they should be resolving within a day or two or three, giving them a well-balanced diet that's appropriate for their age healthy diet.

Kathleen: Yep. Yeah. Is is the way to go. Yes. Yes. I used to be a pediatric dietician way back when, and we did the Brat diet, but we put two 'Ts' on it and we would do very weak tea with a little bit of sugar in it just to get the hydration in. But we also used lean Turkey protein.

Yeah, so there was a little bit of protein and, and hydration, but my kids grew up on that too. Anyway. Okay, so vomiting and diarrhea, the causes, I mean: mostly viral, you say? Yes. I mean, at what point should you be worried about if they're having projectile vomiting? Or they're having to run to the bathroom because it's not just a loose stool. So are those some of the signs that you would say [00:11:00] require a trip to the pediatrician?

Dr Maria: So what I would say is, certainly along the lines as we've been talking about, making sure the child's not dehydrated if there's concern.

And that might be because the child is vomiting a lot, you're not able to get much in, or their diarrhea is really more excessive. Anything that's probably more than 10 times a day, we can call that excessive. And so, in infants, if they're urinating less frequently, so, you know, they have only one or two wet diapers, whereas normally they may have 6, 7, 8 wet diapers a day, or if they're looking dry, dry tongue, dry mouth, tears aren't coming out, or they're becoming very fussy.

Certainly those are all reasons to call the pediatrician. In older children, toddlers and school aged children, again, excessive output. So either, again, probably eight or [00:12:00] nine, 10 or more stools a day. And also with vomiting that you can't, you know, hydrate the child.

That would be a reason to call. If the vomiting at any age becomes very yellow or green tinged, what we typically label as ous vomiting, that is typically one of those signs that would be best to reach out to your pediatrician, if that starts to happen. And certainly any significant abdominal pain or if the diarrhea is not just, you know, brown or green, but if you start to see a red or it looks like blood, then certainly those would all be reasons to reach out to your pediatrician.

Kathleen: Excellent. And then when you say just get them well hydrated, are there any kind of guidelines that parent that might be helpful to say, okay, as long as I could get two cups, four [00:13:00] cups, two bottles, or do you have any sort of help for knowing what that hydration status looks like?

Dr Maria: Yep. So, you know, for, for infants, you have to kind of judge about how much your child's normally taking, right? So if it's a young infant, they're taking three or four ounces every three or four hours, then you want to see if you can get the equivalent amount, like in an oral rehydration solution. And if you're at least getting typically about an ounce in per hour because you might need to give it a little bit more slowly, then that will usually add things up. For the older children, you know, by the time that they're toddlers, you know, 3, 4, 5, some or three or four, somewhere in that range, if they're at least getting four or five cups of liquid a day, and you know, we have to take into account that, you know, a Popsicle maybe is [00:14:00] the same, you know, if you melted the Popsicle.

So if you're getting four or five cups a day, then that would be great. And then for older children, at least, you know, the equivalent of seven or eight cups a day, which is something we should all be taking all the time.

But you know, but they're not eating food, and at least they're able to get that amount of liquid in, then, you know, you're pretty much keeping them pretty well hydrated. And again, for the average child who's otherwise healthy, that should certainly be good enough.

Kathleen: Yeah. And then things like popsicles, it's a great way to get hydration into a child who's not feeling well.

And then also keep in mind that there's lots of foods that have fluid in them. So watermelon's probably the most obvious, but even things like applesauce. It's liquidy so that that will contribute to meeting those goals.

Dr Maria: Absolutely.

Kathleen: Alright, so Dr. Oliva, let's talk about the upset stomachs, the abdominal pain, those, you know, stomach aches that [00:15:00] some kids use not to go to school or, you know, it can be kind of one of those things that, you know, is not really anything, but, you know, could be emotional.

So how do you deal with upset stomachs and abdominal pain in children?

Dr Maria: Well, what I would say is look at, that's a pretty broad category. And again, it depends on whether you're talking about maybe the one or 2-year-old, where the parent is maybe interpreting that the baby has abdominal pain because they might just be crying, you know, or fussy.

And somehow, people associate those symptoms with something going on in the GI tract. And, you know, there, it could be anything in an infant from what we call colic, you know? in infants that are, a few months [00:16:00] old. And with colic, just babies are kind of, just don't understand how to self-soothe themselves.

And I know the parents wish, but again, it's an otherwise healthy baby who happens to be you know, crying for many hours a day but is otherwise healthy. Too, sometimes, you know, babies can have gas, sometimes abdominal pain in an infant could be a sign of an intolerance.

For example, milk protein, right? Which, milk protein allergy and intolerance is the most common allergy in the United States. That's different from lactose. So with milk protein allergy or intolerance, the problem is the protein, the milk protein itself. With lactose intolerance, the issue there is that the person is not absorbing lactose, the [00:17:00] sugar.

Often that has to do with the fact that they have less of the enzyme, the ability to break down the lactose sugar. And so having lactose intolerance can certainly give a child some abdominal pain, gas, bloating, and sometimes loose stools. But typically a lactose intolerance is something that starts to happen a bit at a later age.

So it may happen at 4, 5, 6, or even older. Whereas I would not be necessarily diagnosing lactose intolerance in an infant. Because most infants, you know, should have the enzyme to be able to break down the milk sugar. So when milk problems happen or that we think are milk problems in infants, often it has to do with the protein and not so much [00:18:00] with the sugar in the milk.

Kathleen: So I noticed that a lot of pediatricians will pull off milk products. You know, assume that a kid that's complaining of stomach aches and gassiness, they pull off milk and they pull off gluten. So those are common approaches to dealing with those stomach aches and abdominal pain in kids.

Dr Maria: Yeah. So what I would say, and I guess I was, I had talked a little bit about infants, you know, for older children. Abdominal pain can certainly, because probably the number one reason is what we call now, we used to call functional, and that meant there was not an organic cause. Now it has a new name. It's called disorders of brain and gut interaction.

But that's the abdominal pain that often is worsened with stress or anxiety. And, that's very common in school aged children and [00:19:00] teenagers, but also constipation and indigestion. And again, a viral gastroenteritis are very common causes of double pain in kids. You know, it's interesting when you say that people kind of pull out the lack the lactose containing drinks during that time. It probably doesn't hurt. It may not help as much as we think that it helps. There are some causes of gastroenteritis in younger infants like rotavirus infection that can actually really cause varying degrees of damage to the lining of the small intestine.

And in those cases, an infant or a young child may temporarily not be able to absorb the lactose and milk products as well, because the lactase enzyme is found at the very, very tips of all of these vii, these kind of finger-like projections that we have [00:20:00] in our small intestine. So if those projections are blunted in a little bit of a way temporarily, a child may not tolerate lactose as much. And so again, temporarily it may not be a problem reducing lactose containing drinks or foods.

When it comes to gluten, that's a totally different story. And again, it depends on how the rationale for you to remove gluten. I would suggest that if gluten is being removed from a child's diet permanently, that probably needs a little bit

of more evaluation and discussion with the family and testing to make sure that you first evaluate for something called celiac disease, which is actually an immune mediated condition in which gluten does lead to damage of the GI tract. But we now have, you know, good methods in terms of pretty sensitive, [00:21:00] blood tests that we can use to screen for celiac disease. And if there's any question about whether somebody has celiac disease, they should be referred to a pediatric gastroenterologist.

And major adjustments in the diet should not be made before that referral is done because if we ultimately are concerned about celiac disease in a child, we will recommend typically an upper endoscopy to actually take a look at the lining and get samples of the lining and look at them under the microscope.

And that's the gold standard. That's where you make the diagnosis. And if somebody has already been started on a gluten-free diet, we may not be able to accurately make the diagnosis exactly at the time of endoscopy.

Kathleen: Right. So make sure you don't pull off bread from their diets before you go to see the doctor.

Dr Maria: Correct. And also I'd just like to add a little something about the lactose. There's a lot of sensitivity, but not [00:22:00] necessarily intolerance. And the thing about milk, cow's milk, it's, you know, it's one of the highest biological value proteins. It's fortified with vitamin D. It's such a great nutritious substance that I hate to see people not consume milk just because they're trying to get to the source of that upset stomach.

So, you know, keep in mind it's super nutritious, and when you pull gluten off your diet, it becomes a challenge, even though today it is so much better than it used to be, to be able to find gluten-free products, but it's still a challenge for the whole family. So, you know, proceed cautiously.

Kathleen: Absolutely. Absolutely.

Dr Maria: I think, you know, the take home that you're saying there is make, you know, you really want to be very cautious about dramatically altering a child's diet and removing important sources of nutrition without having a really good reason to do so.

Kathleen: I will always wish that with my profession, I just had this magic touch that could get my grandchildren to eat better. But kids in certain age groups, those particularly do not have great diets. And so when you start manipulating, you know, dietary components, it just becomes harder and harder to get them good nutritious foods.

Dr Maria: Absolutely.

Kathleen: Yeah. So how about, you know, with dealing with an upset stomach, are there, over the counter treatments, are there, like, how should you know? If you just, if you suspect that, you know, my child has a stomach ache, how do I proceed? What's the best strategy to just kind of get over the hump, assuming it's not a critical illness?

Dr Maria: So what I would say is in general, when children complain of abdominal pain, without any other symptoms at [00:24:00] all, right, so they're not having vomiting, they're not having diarrhea, there's no fever, there's abdominal pain, probably just getting a sense of whether or not it may be associated with meals or particular foods is typically important.

Also, knowing what's happening to that child, if they're going to school, at school, or if they're trying to avoid certain things. Those are all really important as well. Thinking about whether your child may have constipation, for example, which is a very common cause of, of abdominal pain.

Uh, it's something to think about. Uh, I guess what I'm, what I'm really trying to say is, um, it's real, it's hard to recommend over the counter medications, um, uh, to a parent for. Just general [00:25:00] abdominal pain. Mm-Hmm. Because I'd rather them give some thought and maybe talk to their pediatrician about what could actually be the underlying cause of that pain, rather than sending them off to, you know, go buy medications like acid reducers or.

Pepto Bismol, or, you know, or, or something along those lines.

Kathleen: in the case of the constipation, are there, I mean, if you can't get enough fiber and fluids into your child, how do you feel about the fiber supplements?

Dr Maria: Yeah, well, so constipation. Wow. That's, that's an entire new area. Different, a big area of discussion because I will say...

Constipation, especially in the United States, is exceedingly common and it is a very common reason for why children go to see their pediatricians, pediatric gastroenterologist as well. Uh, a lot of it has to do, I think with the typical [00:26:00] diet that many of our children here in the United States are eating, which is low in fiber.

Mm-Hmm. Uh, much lower in fiber than we would want it to be. And also in general, you know, probably low in liquids. Uh. We, we, you know, we're not

drinking as much water as, as we should, so to prevent constipation, it's important for the child to be getting adequate fiber on a regular basis and drinking good amounts of liquid.

Once constipation happens, and if it's a problem, if it's something that's going on for two, two or three weeks, at least a couple of weeks or more, and by constipation, what do I mean? What would a parent see that, um, stools? I. Um, the child's stools are becoming hard and dry, uh, and difficult to pass or painful to pass.

And maybe as a result, the child [00:27:00] isn't now going as, as you know, frequently as, um, the parent kind of, uh, thought they were going before. Once that starts to happen, then. Just giving more liquids or trying to give more fibers may not be enough. Mm-Hmm. And, uh, again, that would be a reason to, uh, reach out to the pediatrician because often we do need to bring in either.

Um, uh, stool softening agents. Uh, so, uh, laxatives, uh, that will help kind of, uh, uh, get, get the child over that the problem with constipation and get them in, in better shape to passing more, uh, regular stools. So, uh, I, I do think that. Um, if the child is having difficulties passing stools in its [00:28:00] past two or three weeks, that the, the parent probably shouldn't let it go and, and talk to the pediatrician sooner rather than later.

Kathleen: And preventing it. Lots of fruits and vegetables and whole grains and all these things that are good for growth and development also help things move along nicely.

Dr Maria: Absolutely. Fruits and vegetables are, are, I know a great way to add, to add fiber and, uh, you know, and, and beans, right? Beans and whole grains.

Absolutely. Uh, yes. Uh, and, and also plenty of, plenty of liquids. Uh, and it could be that. It increasing that a bit may help the child with very mild or very kind of beginning of constipation. But, uh, again, I think if it's been going on for a while, and certainly if a parent notices, um, what's called. The parent may not even know this, but what's called, uh, en capis or overflow diarrhea, uh, where [00:29:00] the parent all of a sudden starts to notice, huh, there's kind of streaks of stool and the underwear and, and what's going on.

That could be. Sometimes the parents first sign that, uh, their child is constipated, they may not even have, uh, realized it, especially in, you know, the, the older child in which the parent's not necessarily right, following them into the bathroom, um, all the time. But, uh, what I would say is certainly. In

children, uh, the peak time that constipation may begin as is during toilet training.

So that's where the, the parent may, because they're holding on, on, well, you know, it's, it becomes the battle sometimes. It's the battle of wills. Yeah. Where, where a child decides that they're just, you know, not, not going to poop, but the, the cycle of constipation often does start with. The child withholding stool for any reason.

Sometimes it's due to, to social [00:30:00] reasons that they don't wanna use the, the bathroom, or sometimes they do happen to pass a stool that they feel is painful. And so the natural reaction to the parent, to the child is, well, then I, I'll just hold it. And what people may not be aware of is that, uh, if you hold your poop, uh, and it stays in your colon.

The, the job of the colon or the large intestine is to absorb water. If, if we didn't have our, our colon, we'd all have diarrhea. So the colon, uh, ends up kind of reabsorbing water so that we end up passing, hopefully kind of a, a, a smooth, you know, formed log or bulb for a poop. But if the child ho holds a stool and the stool stays in the colon, the colon just keeps absorbing and absorbing the water.

And that makes the stool hard and then and dry. And so when it is time for the child finally to kind of try to pass that stool, it becomes difficult. And [00:31:00] so they then decide that, oh my gosh, this is really painful. This is not a relief, it's pain. And so they hold onto the stool even more. Mm-Hmm. And as they're doing that.

The very last part of the colon, what we call the rectum, which is a muscle, it, it becomes used to just holding on to more and more poop. And in some children that can lead to a loss of kind of a sensation. And they start really, you know. Backing up. Uh, and it's those children in which the parents then sometimes start to see this leakage or overflow diarrhea.

Mm-Hmm. Or they may, uh, have, uh, even their, their abdo may, may become a little bit distended or hard, and then they start, you know, only passing stools very infrequently, maybe once every three, four or five days. So certainly by the time the child is at. That pattern for sure. They need to see their pediatrician, uh, to be able to, um, you know, [00:32:00] uh, uh, disin impact the bowel and, and start the child on, um, a regimen of medications and fluids and diet that hopefully will, um, get things back in order and, uh, resolve the constipation.

Kathleen: Great advice. So before I let you go, one last question because I promise that we would talk about babies who spit up. So I know, I mean, I think I read two thirds of four month olds are having symptoms of vomiting or gerd. So what can parents do? When do they need to be concerned? The changing of formulas seems to be a common approach.

Give us your tips on dealing with the reflux in babies.

Dr Maria: Yes. So, uh, that's great question and I'm going to just start real quickly by saying something about the terminology. So, because I think it's important, and it will help parents, because many parents will go straight to their doctor and say their baby has acid reflux, [00:33:00] right?

Because they see their baby spit up. So when, when we use the word reflux, that just means that the, whatever the liquids that are in the stomach are coming. The esophagus or into the swallowing tube, and sometimes those liquids actually make it into the mouth and, and, and they spit out. Right? So. All infants.

All infants spit up, they're gonna spit up. And why do they all spit up? There's uh, a few reasons. Um, first of all, uh, at the bottom of our esophagus, there is a muscle there. It happens to be called the lower esophageal sphincter, but it's a muscle that is supposed to prevent. All of us from kind of constantly spitting up and vomiting because it's supposed to hold the contents that are in the stomach in there.

But in babies, that muscle is not fully matured. It opens and closes at random times. And because babies have a much shorter esophagus and a thin esophagus than we adults, any liquid [00:34:00] that goes into the esophagus, there's not a lot of places to go. And some of it's gonna make it into the mouth and, and come out.

And then, and then finally, you know, you. Talked about the, the average four month old, you're absolutely right that at least two thirds of parents feel that their four months old spit up at least once a day or more. You know, the average four month old who may be, oh, I don't know, about 14 pounds, taking about six ounces, about five times a day, that's a lot.

The volume for the size of the infant and the size of the stomach. And so in infants, a lot of times their, their stomachs are filled with liquid. So again, of course they're gonna potentially regurgitate or spit up. So spitting up is a normal part of infancy and it is. Uh, not acid acidic because since the babies mostly have, you know, breast milk or milk or food in their stomach, their, their reef, their regurgitation and their spitting up [00:35:00] isn't acidic.

And in the vast majority of cases, the children are otherwise fine. And as long as they're growing well and they're otherwise happy, there is no reason to alter their diet or. Ask your, your doctor for, uh, an antacid medication or anything like that and or change the formula. Or change the formula.

Absolutely. And, and by 12 months of age for the mass, vast majority of children, that spitting up has, has kind of calmed down now. If there is excessive amounts are spitting up or, um, the child may not be gaining weight as well and there is concern, and the child may be, either the mom might be breastfeeding and eating a regular diet, or the child may be on a.

On a standard cal cow milk protein diet, for those situations in which the regurgitation or the spitting up is felt to be [00:36:00] impacting the baby, then, um, there are, uh, some recommended. Changes to the diet that may be made, uh, and that you'll know whether in a couple of weeks or not, it's making a difference for moms.

Now, for moms who are breastfeeding, they may want to remove milk from their diet, and that might take longer than two weeks for them to see a change there. If a child's on a formula, then they, their recommendations are to, to trial a, a formula that has more pre-digested proteins, uh, because the child, the infant might have an intolerance to milk and, um, so it might make sense to make a change in that way.

You're still giving them a, a, um, very nutritious, you know, um, infant formula. But it may have predigested, um, proteins. And that may work.

Kathleen: You mentioned overfeeding, so sometimes yes. Your parents are trying to get the last ounce or two [00:37:00] into the baby. That might be it. How about the positioning? Maybe if you lay the baby down flat after being fed?

Mm-Hmm. That's probably not a good idea.

Dr Maria: That's not a good idea because you know. Gravity helps. So the more upright the baby is, especially after feeding the, the, the more the contents will stay in the stomach. Now a couple of things about positioning. So I know, you know, putting the baby on a swing, uh, for example, or sometimes in a car seat has come kind of popular to do for the babies that are thought to be extra spitty.

But otherwise well, but you wanna keep in mind that sometimes putting a baby. Who doesn't have good, uh, back support like in a swing, what do they do? They just kind of, you know, slump over. Mm-Hmm. And all that's doing is

putting some extra pressure on their little stomachs. And so that might actually lead to more spitting up.

Make the worse. Yep. You wanna keep them upright. The other thing [00:38:00] I will do is that based on how the stomach lies and it's opening to the esophagus, the swallowing tube babies. Will actually spit up less if you put them on their stomachs rather than on their back immediately after eating. Now we, we know that certainly being put put to sleep or when a parent's not in the room, that infants should be placed on their backs.

Uh, the back to sleep campaign, you know, re reducing, um, sudden infant deaths, that's really, really important. But, um, but, uh. If the parent is gonna be right there in the room, you know, once they've held the baby, burp them for a little bit. If it's an overly spitty baby, sometimes the parents will see that if they put their the baby on the stomach, as long as they're being observed that they may have less spitting up, you know, around after the time of feeding, and that may help control things.

Uh, the last thing I think I would say is, you know, we've heard about thickening formulas, [00:39:00] right? And, uh, if the baby's being given a formula or even breast milk in a bottle, that's where you can do it. And, uh, sometimes, you know, thickening the formula with a cereal, uh, one tablespoon of cereal per one to two ounces of formula, again, can sometimes by thickening the formula, help keep it down.

Um. Uh, and certainly if the mother is expressing, you know, breast milk and, and giving it to the baby in a bottle, you, you can use the, the cereals, but you know, some type the. The breast milk may have, uh, enzymes that actually break down like the rice. Uh, and so, um, there are some thickeners that are available and are sold specifically to, uh, be used with breast milk.

Kathleen: Do you need to enlarge the nipple hole?

Dr Maria: So sometimes you [00:40:00] do rice cereal actually is the one that probably clogs the nipples less. Uh, and again, for children that are, for infants that are formula fed, there are formulas, uh, out there that, um, uh, have, uh, thickening agent in the formula that. Sometimes reduces regurgitation in children, but keeps the formula to the consistency where you don't need to make the nipple of the bottle larger.

Kathleen: Well, Dr. Oliva, this has been a wonderful conversation. I could talk to you for hours. It's so fascinating and yet these are the kinds of issues that parents really struggle with. And the more you understand, the more you

know, you know, the better you can do it. I'll just leave it with one last question to you.

What can parents do to promote good GI health in kids?

Dr Maria: Well, thank you for that question. And what I would say is the best way to promote good GI health is to, [00:41:00] uh. Feed your child as many fruits and vegetables, you sound like me as you possibly can. Uh, on a daily basis, water is the best lick drink, uh, for them.

And, uh, you know, certainly proteins, uh, are, are great. Um. Uh, part, particularly the Lean proteins, but what we know about GI health and especially the, all the trillions of bacteria in our GI tract mm-hmm. Is that the more we feed more plant-based foods, the. Better health our GI tract is likely to have. And so again, that's why, uh, fruits and vegetables are really, really key, but certainly also, uh, lean, uh, meats, you know, proteins, beans, um, whole grains that have fiber.

All all of those, [00:42:00] uh, components are what give us the healthiest GI tract.

Kathleen: Absolutely. Dr. Hugh Sampson. As you know, one of our fellow Nutrition for Kids, uh, advisory board members talked about the microbiome and the importance of fiber, and so it's just a resounding message that parents, I know it's hard to get green things to pass kids lips.

But use smoothies. Find alternate ways to try to affect the taste and you know, like I didn't start out liking asparagus, but you have to keep trying things, right? You've gotta keep introducing it because it's really important to growth and development.

Dr Maria: Absolutely agree with that.

Kathleen: Well, Dr. Oli, this has been wonderful.

Thank you so much for spending your time and enlightening us with all these wonderful tips and ideas and, and understanding about GI Health in kids.

Dr Maria: It was my pleasure, and thank you again for inviting me and have the opportunity to talk to all your listeners.

Kathleen: Touche. Bye now. [00:43:00] Bye-Bye.