**Milk Feeding Masterclass: Expert Tips for New Moms S5| EP119**

Today I've asked Kath to join us to unpack the meaty matter of milk and feeding your baby all sorts of milks. What are the benefits and the challenges of all the different milk methods that a mum may choose? So there are times where mums just can't breastfeed or breastfeed exclusively, so you have firstly combination where you might do breastfeeding and add formula milk into the mix, or in some cases you might need to do exclusive formula feeding. So if I said to you like just kind of top three tips for a mum who's embarking on her breastfeeding journey, what would your top three tips be? Welcome to Sense by Meg Fora, the podcast that's brought to you by ParentSense, the app that takes guesswork out of parenting.

If you're a new parent then you are in good company. Your host Meg Fora is a well-known OT, infant specialist and the author of eight parenting books. Each week we're going to spend time with new mums and dads just like you to chat about the week's wins, the challenges and the questions of the moment.

Subscribe to the podcast, download the ParentSense app and Catchmaker every week to make the most of that first year of your little one's life and now meet your host. Welcome back mums and dads, this is Sense by Meg Fora and I am Meg Fora and as you know each week we unpack many different aspects of early parenting, all about the joys, the challenges and everything from sleep to feeding to discipline, potty training and everything in between. And many times on the podcast we invite experts to join me, people who know a lot more than I do and more than you do on a certain subject matter.

And today is such a day, we are going to be joined by Cath McGaw. Cath is a pediatric dietician and she is really my partner in everything baby feeding. So we've written a number of books together.

Cath runs a very busy practice in Cape Town, South Africa where she deals with neonates, picky eaters and just little ones having a regular feeding journey. And today I've asked Cath to join us to unpack the meaty matter of milk and feeding your baby all sorts of milk. So welcome Cath.

Thanks Meg, thanks for having me back. Pleasure and Cath if there are mums who've joined us for the first time today or in fact any of our regular listeners as well, what do you think that they are going to gain by listening to our talk about milk today? So I'm really hoping that we'll debunk some myths and also just give some guidelines with a huge variety of options out there. Maybe alleviate some guilt if mums weren't able to do a milk feeding method that they were preferring or what that they felt they should be doing.

And then how can you kind of navigate the journey of the exclusive milk diet before you get onto your solid journey? Brilliant, yeah so it's this kind of first four to six months of life where milk is the absolute priority. And you know Cath, mums are often asking us for names of formula milks and because we're going to be dealing with formula milks today, we are definitely going to be chatting about formula milks. But mums for your information there are regulations in South Africa that preclude us from actually speaking about specific brands.

So Cath will not be alluding to specific brands today, she's going to be talking about broad categories of milk. So Cath let's just kick right off by talking about different types of milk feeds that the mum could choose. What are the benefits and the challenges of all the different milk methods that a mum may choose? So obviously the first one is nature's one which is breastfeeding and that definitely is our preferred starter milk because it will help colonise the gut and we definitely know it's our gold standard on which we base our formula milks on.

So that is the one option that a mum would have is to start off on a breastfeeding journey. The second option should that not be possible for various reasons and life happens, life is messy, life is real. So there are times where mums just can't breastfeed or breastfeed exclusively.

So you have firstly combination where you might do breastfeeding and add formula milk into the mix or in some cases you might need to do exclusive formula feeding. So it's either exclusive breastfeeding combination or exclusive formula. Okay so let's just dive straight in because you've left something out there that I think a lot of mums will be wondering about and that is things like goat's milk, coconut milk, all of the other types of milks, cow's milk.

You didn't mention those, so are those not an option for babies under four to six months of age? No, not an option at all and I really would not recommend it and it actually can lead to really severe nutritional deficiencies and digestive issues. So the reality is that there are only two choices and that's formula and breastfeeding? Correct or combination. Excellent, okay.

So how do the nutritional contents vary between breast milk or formula as an example? I think the one thing we must remember with breastfeeding is it's mammal milk and it's being made daily, it's being made hourly by a mum. So it's very dynamic and it's changing and we know that if we take the analysis of a breastfeeding mum's breast milk, it can vary from morning feeds to midday feeds to evening feeds to the age of the baby. So it is very fluid and changing and it also can change with regards to mum's diet.

So that's the difference and that sets breast milk apart. The other thing that sets breast milk apart is the immune benefits of breast milk and that's because whatever's going around, whatever mum's immunity is busy dealing with, her antibodies, which are her soldiers that fight the viruses and bacteria, are going to enter her breast milk, which means her baby's going to get this antibody soldier injection into the immune system, which is amazing because the immune systems are underdeveloped and so it's really helpful that they have that added benefit of the mum kind of topping them up as it goes. But just to put mums who are exclusive formula feedings minds at rest, your baby is born with a lot of the immune soldiers and the immune antibodies that mum has from birth and they last in the baby's body for up to the first six months generally.

So we know that a baby has the benefits of that immunity just by being a baby and being born from the mum. Obviously new viruses, new things that come mum's way and baby's way, they won't be necessarily assisted with mum's immunity if there's no breast milk in the mix. So those are probably the fundamental differences with breast milk from the dynamic immunity benefit and then that the milk is forever changing and changing with baby as baby grows.

And also what's amazing is the breast milk of a pre-mum is quite different to the breast milk of a term mom. And so that also shows us that the body's quite clever and knows how to make some adjustments. So yeah, I think that just really sums up the breast milk side.

Then on the formula side, we've got a number of categories of formula. The most prominent and most abundant one is your cow's milk protein-based formulas. Now I think we need to remember that, remember we said we don't give cow's milk to babies at this age and in this journey in the beginning.

So when I talk of a cow's milk-based formula, I'm talking about that they've removed the cow's milk protein from cow's milk, they've changed it, they've made it as close to breast milk as what they can make it. They've changed the percentages of the various proteins in it so that it's more tolerated by the baby's gut because cow's milk protein in its pure natural form is definitely not well tolerated by a baby's gut in the beginning. So that when I talk of a cow's milk-based formula, that's what I'm talking about.

So that's your standard formula. Then you get your soya-based formulas. So those are both generally whole protein formulas.

So the protein's been tailor-made to the baby, but they're big proteins and the baby's got to learn to digest it and most babies cope very, very well with that. Then we've got our specialized group in the middle and those are for baby's guts when it comes to formula who can't manage those big proteins. Some babies can't manage big proteins, both of the soya formulas and of the cow's milk formulas and then they need their proteins to actually be pre-digested and broken down further and further.

Okay, excellent. So Kath, I just want to break this down a little further because you've spoken about obviously the immunity that can be transferred in breast milk. There's obviously also the macronutrient breakdown, things like the carbs, proteins and fats.

How comparable is that in formula to breast milk? So that is always for me a bit sad in that the formula haven't followed as closely with the breast milk composition of the macronutrients, which you've just mentioned. So in formula, you have the protein and you have your carbs, but your fat plays a very big role in breast milk formula compared to, I'm sorry, in breast milk compared to in your formula where the carbs still provide the majority of the energy compared to fats. So there has been a slight shift by certain formula companies, but not in my opinion sufficient to meet the comparison that breast milk has and that's largely for two reasons.

Number one cost, it would just cost that formula up the market that most families wouldn't be able to afford. And the second reason is stability. So fats, they don't really blend as easily, mixes easily and it's a little bit more challenging, which is why costs would be raised if they had to bring the fat into a way that it would be mixed.

So it wouldn't be just all floating on top of the bottle. And that is largely the reason why they're not able to meet that comparison. But in breast milk, fat proportion in your feed can be up to 40, 45%, which is really significant, which show us that babies really like to burn fat and use fat for energy in the first early start of their life.

And is colostrum more fatty than mature milk? So colostrum has, no, actually not. Interestingly enough, colostrum is there with protein and it's there with your, because it's got your high levels of immunity, which are all little protein molecules. And then it's also got your lactose glucose molecule maltodextrin in it, broken down though.

So it looks different to milk lactose. So it just takes one little part of the lactose and uses it, which is why it actually is able to maintain their blood sugar post-birth, even in such a small minute amount. Fascinating, absolutely fascinating.

So, so far, breastfeeding is winning on the immunity side and it's winning on the fats and macros side. Let's talk about vitamins and minerals. Does Formula do a good enough job with that? So Formula definitely does.

And then that's not too difficult for them to add. So I think they've definitely done well with that. They've even, what they've, I would say have done well with is your, some formulas, they've added extra omega-3s to make it in line with the omega-3 content of breast milk.

And they've added other essential fatty acids to make it in line. So even though they're not meeting the fat in the percentage that breast milk has, they do meet the equivalent in your essential fats and in your omega-3s. So they add those as extras.

When it comes, what's really interesting when it comes to the protein in Formula, they now, some formula companies, and this is something I would really encourage moms to look out for, have been able to add what they call HMOs, which is your human milk oligosaccharides, which is the special carbohydrates attached to a protein. And that is really good for gut maturity and probably one of the key prebiotics that the baby's gut is able to use to feed the healthy bacteria in the baby's gut and create a very healthy gut environment. Now, not all formulas have that in, and they generally are a bit more highly priced if HMOs are added to formulas.

Your preterm formulas, really, I would encourage moms if you are needing preterm formula and you can speak to the doctor and ask them are they using a preterm formula that has HMOs because we do get that. So I would really encourage moms to ask that question if they are needing to feed their prem babies on a formula. Brilliant.

Well, that was exactly where I was going next was the oligosaccharides because of how important they are for the gut microbiome. But the other things that are also important for the gut microbiome, and I remember when you were recently at Espergan, you and I had a little chat about some fermented milks. What's the latest research on that? So what is very interesting is that post that discussion, I did a little bit more digging, speaking to one or two of the professors there.

And I was saying to him, okay, great, now if we're using an acidified formula, but now where does breast milk fit in that? And he was saying that actually breast milk, some of the components have that same structure as an acidified formula. And that's sometimes why moms will say it tastes a bit sour, or if you leave it out, it like sours so quickly, breast milk. And that's because of that acidified, because it's the human milk oligosaccharides that allow for that to happen.

Now we do have acidified formulas, not a lot, but more companies are moving towards that side. In the past, the acidified formulas were really used there just for your under-resourced countries and places where there was a high risk of diarrhea and poor sanitation and poor running water. And so acidified formulas were shown to be very protective in those environments because it was protecting the guts.

And so what we've now seen is that it goes beyond those types of environments. All our babies really can do with that. So it's really fermentation process in the milk production of these formulas, where they allow certain parts of the milk powder to ferment, and then they incorporate that into the milk and almost creating a bit of like a yogurt-y type flavor and type taste.

It's amazing. So before we go into the more practical side, I must say that I'm feeling quite stressed for moms listening to this conversation because we can't mention brands. And that's really hard.

I'm sure every mother's sitting here going, okay, so which are the formulas that have acidified? Which are the human oligosaccharides? And so, I mean, I know that you can't guide them. Would the advice then be you need to go to a clinic sister or to a dietician and find out which is the best milk? You can advise on milk in a one-on-one consultation. It's just in this public platform that you can't.

Absolutely. And I think also I'm mentioning words that are on the tins. So generally the tins will have, they will say acidified formula, they will, or acidification process, they will state HMOs, they will state added omega-3s and essential fatty acids.

So those are really important factors to look for when you are shopping for formula. And so it might just mean asking daddy to look after baby and just going off to the shop or let daddy go and read the labels or you go and read the labels or you both get the baby babysat and spend time reading labels. But there's also online, there's quite a lot of information online and that can also be helpful to look at.

That's brilliant. Well, before we go further into breastfeeding, bottle feeding, and we will go more into bottle feeding, I just want to just go back to breastfeeding. So obviously we have mentioned right at the gold standard because it was what was designed, it changes daily, it changes through the day, it's best for prem babies, it protects the gut.

There are just many reasons why breastfeeding is a good place to start. Not the only option, but it is a good place to start. So if I said to you that just kind of top three tips for a mom who's embarking on a breastfeeding journey, what would your top three tips be? This episode is brought to us by ParentSense, the all-in-one baby and parenting app that helps you make the most of your baby's first year.

Don't you wish someone would just tell you everything you need to know about caring for your baby? When to feed them, how to wean them, and why they won't sleep? ParentSense app is like having a baby expert on your phone guiding you to parent with confidence. Get a flexible routine, daily tips, and advice personalized for you and your little one. Download ParentSense app now from your app store and take the guesswork out of parenting.

So if I said to you that just kind of top three tips for a mom who's embarking on a breastfeeding journey, what would your top three tips be? So firstly to make sure that you get lots of rest, because if you are rested, if you're well nourished with good nutrition and you are well and you're well hydrated, so remember breast milk is liquid so you need a lot of water intake in your day, those are your three key areas. Stress definitely decreases breast milk production and if you don't get enough of the raw materials to make the breast milk like food, you regularly throughout the day, just like you said milk has been made throughout the day so you need to be eaten throughout the day. You can't just have one meal and hope for the best for the rest of the day or not eat all day and then have one end of day meal and hope and wonder why you've got no milk at the end of the day.

So it's regular small meals and snacks throughout the day. Protein is extremely important, they're found for adequate quantity of breast milk production. In fact, mums often get scared and it's post delivery and they want to get back in shape and lose weight, but you know what, if you're eating a healthy balanced diet and you are breastfeeding and you start off on your journey of going for walks with your baby and being a bit active, your body will get back to where it needs to be before you know it.

Actually breastfeeding can really help with that as well. So it's again what you choose to eat when you are breastfeeding, so good wholesome foods. Because what is really important and I think we even mentioned this in the SBN updates that we were doing, is that the mum's gut microbiota is critical throughout a baby's first year of life.

So it's not just well let's sort out my baby's gut, don't worry about mine. Because you have such close contact with your baby and if you breastfeed, but not only if you hold in your baby skin to skin and your baby is kind of like sucking on your face and all of that, you live, your gut microbiota lives all over you. And so you really do want to encourage your healthy growth of that.

So through good nutrition, fermented foods, raw fruits and vegetables, those type of things, possibly a good probiotic if you've had a C-section and have had antibiotics. So it is really important that you look after yourself and that's probably the critical key when it comes to breastfeeding. And the other thing, and I remember at one of the talks we did many, many years ago, I called it the latch when I did a breastfeeding talk for you.

And it really is, you know, a good latch can make a huge difference to milk production, adequate feeding, adequate calorie intake by the baby. Also whether your nipples or your breast will get engorged or not. You know, if the latch is not right, and that means taking in not just the nipple, but the whole areola, that is breastfeeding.

It's not nipple feeding. And so it's the latch and it's good rest, good hydration and good nutrition. I love it.

Really, really awesome. So before we move on to formula, there will be moms who really do want to breastfeed. They don't necessarily want to go into formula and they just feel like they have not got enough milk supply.

Can you speak to those moms at which point should they really be looking at switching across to formula or supplementing with formula or what could they do to know that they have got enough milk supply? So again, I think it comes down to the key things. So get someone to help you, your lactation consultant to check your latch, you know, take maybe a bit of time, just downtime, just kind of say no to visitors and just re-establish your breastfeeding. Because sometimes what happens is the milk comes in day three, day four, and it's quite abundant and you navigate in it and you kind of get into a good rhythm.

And then suddenly you're feeling better, your scars healed, you're ready to go out and show the world your baby and you start to get very busy and you have this event and that thing happening and your milk drops again. So just maybe taking a back step and just calming down again, getting your milk going. But if your baby is starting to not gain weight adequately or lose weight or stagnating on their weight curve and you're exclusively breastfeeding, that definitely would be a sign that you might need to just give some top-up feeds.

Then I would always encourage first breastfeed, let your baby have a good breastfeed, then you can top up with a bottle. That will also give you a good indication, is your baby getting enough? Because if they're down a full formula feed, that means they're getting very little from your breastfeed. And then also just frequently putting them to the breast, not every single hour, but like every two to three hours, making sure that you're putting them at the breast, watching for in the early days, those long night stretches or long day stretches, often it's long day stretches and just not allowing that and actually waking your baby up, encouraging the breast.

So just kind of encouraging the process of feeding, but always at the breast first, then you can top up and that will give you a good indication as to how your baby is doing. And you could top up with express breast milk as well, if you were anxious, couldn't you? You can, if you are able to produce more. My experience with these moms is that they often just can't produce extra for breast milk.

So they just barely have enough to do those feeds. But if you're away from your baby and you now don't skip a feed, rather express, and then you can definitely store that and use that as a top up, that's first prime. I think what's really important is that obviously in an ideal world without any other life happening, we would love exclusive breastfeeding with no impact of formula.

But I just want to say something which we didn't speak about because I hadn't yet been in that lecture. But something that was very interesting for me in our cow's milk protein allergy lectures was that they've done some extensive research and babies that were actually exposed to cow's milk protein at the beginning in that first week. And then just once a week thereafter were given a small little dose of a cow's milk protein formula, had a much lower incidence of cow's milk protein allergy later down the line.

But when they were given that little bit of cow's milk protein, because maybe people were worried about blood sugar, or there wasn't enough milk supply. And then they were removed, it was removed altogether, and then they were later re-exposed to it, they actually had a higher chance of developing cow's milk protein allergy. So if it's been something that's not in your control, and your baby's been exposed to it, and you're feeling like a bit like dejected, and oh my word how this happened, I would encourage you just once a week, give your baby a little shot of cow's milk protein.

And it doesn't have a formula, and it doesn't have to be a large volume, it can be like literally 20 mils. And that seems sufficient weekly to keep the baby just tolerating cow's milk protein. So if at any point in your journey you need to do a top-up with a cow's milk protein formula, from the time you introduce it that would be your mechanism once a week just to keep it going.

Super, super interesting, Kath. And with that one, would it be a wise thing to kind of give that little top-up bottle maybe at bedtime? Does that assist with them sleeping better? It may, you know it may, especially because we know the end of the day they tend to, we tend to have a bit less milk, life's been a bit busy, they're a little bit more fractious, and so possibly just that little top-up at the end of the day if they've already been exposed can be helpful for you and helpful for them. Very interesting.

What are the common challenges that you see moms facing when they're transitioning from breast milk to formula, or when they're introducing a mixed feeds? So I think one of the challenges is the baby taking the bottle. So you get some babies, and it depends on their sensory personalities, and this is obviously your area of expertise, but you know that slow to warm up baby will take a bit longer to get onto it. Our easy going baby doesn't have a problem generally moving back and forth.

And also the social butterfly, not too much either, but the sensory sensitive one is suddenly a little bit affronted that we've got now new apparatus, not so excited to slow to warm up baby but mistrustful of it. So those are just the bottle, just the logistics of that. But what we do notice, we can notice some gut changes, and I think it's important to remember that there will be stool changes.

Generally, and this is not always understood, breast milk has a much higher lactose content than most formulas. And so the lactose is wonderful for growing good gut microbiota, but also really good at helping with stool formation and preventing constipation. So then you go into formula, which often they have a much lower lactose content, and then they struggle a bit because there's been a shift in what they're taking in.

Also, if it's a whole cow's milk protein formula, again, it's still cow's milk, it's not mom's milk, and the protein structures are different. And some babies might then suddenly show us that they actually have a cow's milk protein issue, and we might struggle a little bit with that. They might become a lot more uncomfortable, they could get constipated.

People don't often realize that constipation is often a sign of cow's milk protein allergy. And so that's also something just to be aware of. However, not so that everyone whose baby is constipated on the first day of formula introduction thinks that they've got a cow's milk issue, you must give two weeks, and this I would really want to say avoid formula hopping at all costs. So try and give at least two weeks before you decide this formula is or isn't working for my baby. However, if after day three your baby's got blood in their stools from the formula, please don't persist for three weeks, two weeks, rather speak to your ped.

So anything, if they break out in hives or anything that doesn't look healthy or normal, you need to let your pediatrician know about it. Otherwise, if they're just a bit fussy, a bit fractious, they look like they're not passing stool as easily, give them time. If it hasn't resolved after two weeks and it's escalated, then you do need to have a conversation with your healthcare provider to see what would be a better choice and better option.

And I would really suggest you do that and have that conversation versus trying the Instagram route, because you are going to get 25 different opinions because there are 25 at least different formulas. And so I really want to encourage you to get some sound scientific good advice so that you go down the right road, because research has shown that the less formula changes a baby has, the better their gut is down the line. So we really do want to encourage that.

Very, very interesting. Okay, so we're going to put this into a step by step. First step is colostrum for all babies, if possible, in the first three days.

So please, absolutely moms, even if you're not going to breastfeed, prioritize colostrum. Step two, prioritize breastfeeding if you possibly can, because we know that there's certain things that Cath has mentioned that cannot be replicated absolutely perfectly in formula milk. Step number three, Cath, we're going to, for the mom who's choosing to go across or just supplement with a little bit of extra formula, where do we start? Do we start with a cow's milk protein formula? Do we start with a hypoallergenic formula? Do we start with an acidified formula? Tell us gold standard, mom's decided to move across to formula, what is her principle? Yeah, so no, HA, hypoallergenic formula is totally debunked.

I think we should be seeing them come off the markets and changed very soon because there's really no good science or research to show what we thought was a good idea actually hasn't proven to be helpful. And so it's really not necessary. But I would suggest finding just a cow's milk protein formula.

If you can find an acidified one, I would say great. At the moment, we've got an acid, so in South Africa, we've got an acidified one, which is good. It just doesn't have added HMOs and it doesn't have anything else added.

Like I said, it was for our income groups. And so it doesn't have a lot of extra added that has come into research over the years. So that's something just to keep in mind.

So however, there is that same group is coming out with an acidified formula that will have HMOs, will have your omega threes, will have your good protein ratio. And I think that is really important. So I would say I would look for one that's got HMOs and I would look for one that's got added omega threes.

And they generally have gold in their name when they have those in it. Okay, excellent. So it's a cow's milk protein rather than a soy based initially.

You're then going to give yourselves two weeks in which your baby will settle, breathe, just it's fine. Your baby will go through a little bit of changes like constipation potentially or changes in their poos. But if there is blood or hives, blood in the poos and hives and allergy looking reactions on the body, you then go and see a doctor and you need to be guided.

100%. Brilliant. Okay, well, Cath, this has been amazing.

For parents who are choosing the route, I think a lot of parents feel very out of their depth, especially when breastfeeding gets a little tricky because they don't know where to turn. And I think we've covered off the milk options really, really well today. So thank you so much once again, as always, for your wisdom, Cath, just, you know, always research based.

And I really do appreciate it. Thank you. Pleasure.

Thanks for having me, Meg. Thanks to everyone who joined us. We will see you the same time next week.

Until then, download ParentSense app and take the guesswork out of parenting.