

First Year Developmental Milestones
With Dr. Ayana Remy
October 12, 2019

Brand spokesperson, Tonya Williams Lightbourne, welcomed guests to the inaugural *FamilyTalks* event, introduced pediatrician, Dr. Ayana Remy, and reviewed some of her credentials.

Dr. Remy had already visited with most of the guests, played with the babies, talked to the parents. She began her talk by asking each family for the names and ages of their babies/children.

Dr. Remy conducted a **great icebreaker**--asking Matthew and Brittnei Henry about the differences between their two children, Makaila and Matteo. The parents shared physical and temperamental differences. Interestingly, they came to the event with a list of great questions, although their four month old baby, Matteo, was their second child. (Each child is different.)

The Henrys attended the event because they had queries about Matteo's eating habits. Mom had done online research but was concerned about baby's eating habits. (Many guests had questions about feeding their babies.)

Dr. Remy introduced her topic: **Baby's First Year - Developmental Milestones**. She defined the concept of milestones, looking at four types of skills or markers by which to evaluate how babies were developing:

Social & Emotional: how well they are relating socially and emotionally

Communication: how well they are developing language skills

Cognitive: how they are learning, thinking and problem solving

Physical: how well they are moving, their gross motor skills (use of large muscles) and fine motor skills (use of smaller muscles including hands, wrists, fingers, feet, toes, lips, tongue, hand-eye coordination)

Dr. Remy emphasized that developmental milestones are not hard and fast principles. All babies develop at different rates, even within the same family. So we can't compare babies by these milestones. They are general markers by which to evaluate infant health.

Developmental Milestones for Newborns

"Let's start with the newborns. They're not doing very much. We like our babies really, really close to us. But as far as their social interaction, maybe they can identify Mom's voice. They cry for everything, when they're wet, bored, hungry, tired, cold, but that cry is the same.

In terms of their cognition, they really can't see that much. You look at baby and think, 's/he knows me, he's smiling at me,' but the truth is, they can't see much, just blacks, whites and grays, and they follow your face. So if you try to get their attention, they will maybe just look midline, from one side over to the center, but not past that.

As far as their language and communication, loud noises startle them. They have something called the *Moro reflex* which is exaggerated in the presence of loud noises (when startled, they extend their arms, arch their back, then return to position). They make few other sounds than crying.

In terms of movement, remember, when they are in the womb, they are crunched and they are flexed, and they are pretty much flexed when they come out. The arms and legs are flexed. The fingers and hands are going to be tightly fistled.

Developmental Milestones at Two Months

Socially, when they get a little bit older (at about two months), they develop something called a social smile, so they can recognize a caregiver. So when Mommy walks in the room, they smile. That's a really lovely time because it's an actual, true smile, which is very different from the smiles when they are newborns. Up until then, smiling is just a reflex. You might think, 'Baby is smiling at me.' The smiles of a newborn are very different than a social smile. When they're sleeping, it almost looks like they are dreaming. I hate to break the news to you, but your newborn is not really smiling at you; it's a reflex. When they hit two months, you have that reciprocal smile.

They're also smiling at other people, and they can briefly calm themselves by putting their hands in their mouths.

In terms of language, they are cooing. A "coo" is a vowel sound. The sounds are "aah" and "ehr." It's different than babbling, which happens when they place a consonant before that vowel. They also make gurgling sounds.

They're turning their heads towards a sound. Because they can recognize a caregiver, they can turn their heads 180 degrees, they will look from one side to another.

In terms of their cognition, they are paying a lot more attention to faces as well and beginning to follow faces at a distance. So they can recognize Mom when she comes into a room, and smile, "Hey, that's my Mummy," different from a newborn who doesn't have that visual perception anyway, but would maybe just be able to see...

In terms of movement, it's a really good time to put baby down on his/her stomach. Unlike a newborn, the two month old baby can hold up his/her head, and move the head from side to side.

Developmental Milestones at Four Months

This is really more of a spontaneous smile, not just to caregivers, but to anyone. Anyone who comes near, baby is going to give them a really nice smile. They like to play with people, and if you stop playing with them, they actually start to cry, like, 'Hey! Where did you go?'

They also copy facial movements, so this is a good activity to do with them. If you stick out your tongue, or open your eyes wide, they will try to reciprocate and do the same thing.

In terms of language, at this age babies start to babble. Cooing is just using vowel sounds (aahs, ehs). It's easier to coo because you're just doing those vowel sounds. With babbling, they add consonant in front of vowel, "baa, baa, baa, baa," "maa, maa, maa." It's not specific, as they are just starting to babble at this age.

Their cries are different. Mum and Dad should be able to differentiate an "I'm hungry" cry from "I'm bored," or "I'm cold." The cries are starting to sound a little different.

In terms of their movement, this is a great age. Everything is a midline.

They're beginning to reach with both hands. They use one hand to anchor that while pulling in the object with the other hand.

When relaxed, his hands are brought in, almost as if he's praying.

When chilling, his hands are interlocked, his hands are going to his mouth, it's a midline movement.

Once he starts to reach with both hands, he discovers that he's able to do so with the other, with just one hand. This happens between four and six months.

At two months, baby is just lifting up her chest.

At four months, baby can actually push herself off the floor, look around even more, her legs are strengthening, she can bear weight on her legs. Babies love nothing better than for you to hold them under their arms so they can bounce up and down on your lap.

Developmental Milestones at Six Months

Remember that at four months, babies are open and playful with people other than their caregivers. By six months, they develop something called "stranger anxiety." They recognize people they know. They love playing with their parents. When approached by strangers, they look at their parents for reassurance, and when they have that reassurance, they are a lot more comfortable going to strangers.

In terms of language, they continue babbling, but now they are able to take turns talking. Mom will say something to baby, and she waits until Mom finishes to respond.

A lot of things go in the mouth at this age. They're using the mouth for exploration. They have improved depth perception.

They are picking things up at four months, and able to now transfer them from one hand to the other at six months.

They're also rolling over. Think about it. If you have a baby who can push up, lift up on one arm, use the other, pivot, and roll over from their tummies onto their backs. That allows them to see even more.

Developmental Milestones at Nine Months

At this age, there's something called "separation anxiety." They have such a bond created with caregivers, that if that caregiver leaves, they start to cry. They get very, very clingy at this age. They know that you are leaving and they are missing you.

They have a favorite toy.

A good hallmark at this age is something called "object permanence," baby will follow the toy, know when it's missing.

Baby's saying "Mama" and "Dada," but everybody is Mama and Dada. It's non-specific.

They're starting to point. Some of them may be gesturing as well, indicating they want to be held, or responding when you hold out your hands. They gesture with both arms for you to hold them.

Good hallmarks for nine months: crawling and cruising. Let's think about their gross motor skills. First they can push all the way up. Then they anchor themselves with one arm, and then the next. Once both arms are strong, they strengthen their legs. Soon, they are able to crawl. Then they begin to cruise, in an effort to learn to walk and stand, holding onto furniture, pulling themselves up and moving along with support.

Developmental Milestones at Twelve Months

Socially, there's lots of peekaboo, waving goodbye, helping you to dress them, addressing you as "Mama" or "Dadda," in a specific way. They also say one other word, maybe the name of a pet, or "uh-oh!"

In terms of cognitive development, they have good fine motor skills. They have something called a "pincer grasp," so they can pick up Cheerios using a finger and thumb, and explore widely using their hands. They are banging toys together, shaking, making a lot of noise. They love to mimic activities such as brushing their hair, picking up

In terms of movement, they can stand up by themselves beginning at twelve months. Some of them may be taking two to three steps by themselves. What we look for around the first year is that transition from crawling and cruising to an independent stand.

What can my baby see?

Newborns cannot see much, about ten inches in distance. They see only in black and white.

At 2 months - They are starting to focus on your face.

At 4 months - They see pastels and colors.

At 5 months - Depth perception comes in.

At 8 months - They can see like you and me, and their true eye color has come in

What can my baby hear?

They hear better than they can see. The sound is still muffled, but is better than in utero. They still have a little fluid in their ears from birth, but it's usually resolved by 3-4 months, at which time their hearing improves.

Promoting infant development in Year One

The one single thing you can do to help your baby develop is something called "tummy time," and it's self explanatory. It's time on the tummy. When they are on their tummy, they are developing all their muscles--their neck muscles, back muscles that help them to sit up.

It helps to prevent flat head, which we see in some babies. It helps with constipation, bowel function, helps them to reach, helps with fine motor skills.

Tummy time can be as much as babies allow, perhaps from 10 to 15 minutes, 2 to 3 times per day. Some babies hate it and they start to cry, but the key points are to start and be consistent with it. At six months, once they're rolling over comfortably, you can stop tummy time because their neck and back muscles have strengthened sufficiently.

(Joy's note: see this article for more information: <https://www.thebump.com/a/tummy-time-when-to-start-how-to-do>)

One thing to remember is that if you've had a premature baby, they're going to need a little bit more time to catch up. There may be developmental delays because baby did not have as much womb time. If the baby was two months premature, at four months we expect them to be doing with a two month old is doing. Their timeline is somewhat adjusted. We still do allow 1-2 months to catch up. If you have a concern, talk to your doctor about it and they would be best advised for how to deal with it.

Audience questions

At what age can baby sit in a (sitting/feeding) high chair? Good question. Between four and six months. That's when we start to feed them. To feed them, we want them to be able to very comfortable sitting up so they can swallow, so--because their back muscles are so strong--then can lean forward and backward, and turn their head from side to side.

At what age can baby sit in a walker? That's a good question! No walkers. So listen to this. The American Academy of Pediatrics recently put out an advisory on walkers. They're actually banned in the UK because they are not safe. The baby goes in there and is having so much fun, but the walkers can be hazardous around stairs. Some studies have shown that they actually delay walking because they become accustomed to that support. It's better to let them cruise, put furniture close together and let them move around that way. So no walkers.

Instead, hold baby under his arms and bounce him. This helps him strengthen his legs.

What about squirming out of the bouncer? It's normal for a four-month baby.

What about poop? Is it okay to have lots of seeds?

Poop can be all colors of the spectrum--orange, green, yellow, or brown. The colors reflect what baby is eating, and if breastfed, what Mom is eating.

What we don't want to see is black (because black usually means old blood). We don't want to see white poop, because that can indicate a liver problem, and obviously we don't want to see red or bloody poop.

So the scoop on poop is that rainbow poop is okay, except for those I've mentioned.

If baby poops 3-4 times a day, especially if breastfed, that's fine. If he suddenly begins pooping 12 times a day, that's a red flag because there's a change in the frequency.

Big sister, Makaila (about 4-5 years) had a question for Doctor--baby Matteo pulls her hair and puts it in his mouth. Is that okay? Dr. Remy said, "Oh...he's exploring! But don't let him put your hair in his mouth."

Another child asked whether babies can hear music while they're sleeping? Dr. Remy emphasized that newborn babies can hear pretty well, but not as well as we do. She strongly recommended having hearing tests done during year one. This is not a standard in the public system, but can be arranged at Doctors Hospital.

What general recommendations did she have around feeding transitions from milk to solids?

AAP recommends transitioning to solids between 4-6 months. Here, we recommend six months. We spoke about them wanting to sit up while they're feeding. The reason is that we're putting a spoon in their mouths. However, up until six months, baby has a "tongue thrust" reflex, using their tongues to automatically push out foreign objects. This disappears around five to six months, and it gets a lot easier to feed them.

The other reason is that it's less allergies. That whole thing has changed because now they're recommending that we give babies with a family history of allergies, allergenic foods a lot earlier, to expose them. We wait until their immune system is a little more developed. You start with fruits and vegetables and single grain cereals.

How do you determine allergies in a baby?

Many times, allergies are discovered by trial and error. Earlier on, when they are just born, especially if they have a cow's milk allergy, that's obvious. If baby drinks cow's milk, or Mom drinks cow's milk and breast feeds baby, we may see loose and sometimes bloody stools, and baby may be fussy or very irritable. That's easy to diagnose, and we usually treat it with a cow's milk product that's more broken down and easier to digest.

When they get a little bit older, they may have mild anaphelaxis*, rashes, bad diarrhea, severe abdominal distension, and lip edema (swelling).

See explanation at https://www.rch.org.au/kidsinfo/fact_sheets/Allergic_and_anaphylactic_reactions/

Luckily now we do have centers away that can do allergy testing, as early as infancy.

The local allergenist, Dr. Hunt, prefers to test for allergies, beginning at two years. It really is more of a trial and error, and an elimination process.

So if I have a baby in my practice that develops severe swelling of the lip, or a really bad rash, sometimes we'll pull them off of a new solid we've introduced, for a couple weeks, before we try them on that again.

What is colic? Great question. So remember the rule of threes.

Between the age of 3 weeks and 3 months, colic peaks.

3 hours a day - can you imagine having a baby that cries for three hours a day?

More than 3 times a week

And baby cries usually at same time of day, usually evenings.

Nobody really knows what causes colic. There have been some theories that it is caused by gas in the tummy, or food allergies.

But what we do know is that it's there, and they cry. For a pediatrician, it can be kind of hard, because you want to exclude anything that's sinister of pathological. Once we've done that, we can safely tell the parents, "it's only colic, it's nothing to worry about."

But there are a couple of things you can do to help. *Dr. Harvey Karp recommends five behavioral solutions which mimic the womb and induce a calming reflex, commonly known as the five S's:*

<https://www.todayparent.com/baby/baby-health/harvey-karps-solution-for-colic/>

- ***Swaddling***, or lightly binding them with a blanket, arms down;
- *Picking up baby and holding them in the **Side or Stomach Position**. Though babies must only sleep on their backs, you can hold them in this position to calm them.*
- ***Shushing***, or imitating the sound in the womb. This noise needs to be as loud as baby is crying, until s/he starts to settle.
- ***Swinging***, or moving baby in a light bouncing motion. Do not vigorously shake the baby. Think about bouncing gently with baby in arms, dancing, or walking around.
- Finally, work with the ***Sucking*** reflex. Nurse or feed baby once they have begun to settle. **(Note that the italicized text is not a direct quote from Dr. Remy, but is paraphrased from research above. Dr. Remy's quotes resume below.)**

Sometimes we change baby's formula because there are some studies that link colic to milk allergies. So we'll put them on a more broken down formula and change mom's diet, if you're breastfeeding. Sometimes we give colic drops. But to be honest with you, the behavior modification are better than medication. It does stop by three months, it does get better, so we do a lot of reassurance as well.

(Muttered exclamations from parents; one family had a baby that had colic.)

What about dill seed tea? The thing about teas that they have a little bit of a diuretic effect (making baby urinate). It's not something that's been studied that much, but I have parents that absolutely swear by it. So I tell them, hey, if it's working (for colic) go ahead, but do not give them very concentrated doses.

The other thing is that when we give babies non-milk products, we're filling their tummies, and not necessarily with nutritious content. It's not milk, and so they feel full, but we have some babies losing weight because they're not getting the high calorie source they actually need. So it's not something I recommend, but by trial and error, if it works, then...(conversation interrupted by the next question...)

What about giving them water?

Water is not recommended for babies of less than six months, for the same reason. It fills them up, giving them the sensation of satiety (being full), and they don't usually want to eat anything. Do no water until they're six months. If it's nice and hot outside, you can give them a little bit of water--after six months.

If they're not allowed water, what causes the milk to break down in the body--because doesn't milk sometimes cause constipation?

Do you remember? You mix the milk with water. I actually visited a formula factory, the Lactogen factory, and these people literally spent millions of dollars so they'd know exactly in which concentration the formula should be mixed. You need water to mix the formula.

Milk doesn't really cause constipation. I've heard that a lot, that it does. It *can* sometimes cause diarrhea and loose stomach in some babies.

Constipation is pretty frequent in babies. The number one call I get from new moms is that "my baby's constipated." Not necessarily. When we need to use the bathroom, we feel it the sensation. It's the same for babies. (The way they appear may make it seem that they're constipated.) One rule of thumb is this: as long as the stool is soft, regular and frequent, it's not constipation. You need two things for constipation--a change in the consistency of stool, and frequency of elimination.

Let's talk about co-sleeping. The AAP (American Academy of Pediatrics) *does not* recommend co-sleeping. I know you like to have your baby close to you; I know you like to cuddle, I know that there's no way to imagine that the baby's even more comfortable alone, in his own crib, BUT...babies who co-sleep have a much higher incidence of SIDS (sudden infant death syndrome). So they need to sleep (ABC) **A**lone, on their **B**ack, in a **C**rib (or bassinet).

Infants between one and three months may seem to be sleeping better on their tummies, but that's because it's all they can do. They haven't gotten strong enough to roll over on their backs yet.

I know it's a tough one, easier said than done, but it's safer for babies to sleep alone in a crib.

The AAP recommends placing babies on a firm mattress, with a well fitted sheet, no blankets and no toys or stuffed animals.

What's connection between immunizations and allergies?

Most allergies are food related, and that's not really what you find in the additives in vaccines.

It's highly unlikely that immunizations are causing food allergies. You have some environmental triggers as well.

I haven't seen any significant link between them.

What's more topical is the connection between immunizations and developmental disorders like autism. This is a topic that has been studied ad nauseum for decades. In general, most of the reputable boards--the CDC (Center for Disease Control), the AAP (American Academy of Pediatrics) and the IB community--would say there is no link between immunizations and autism or developmental delays. We can't really compete with external experiences, so most times if you'll have a Mom that actually swears that after my child got their vaccine, I started to notice some differences, sometimes it may just be because of the timing of the vaccine, and because we see those development issues peaking at the time of the MMR/Varicella combination. This is a very controversial issue. I will say that most of the studies have not confirmed a significant link between the two. Parents have concerns about the additives, like the aluminum, or numerous vaccines given at the same time, and again, no significant link between the two.

This came up from a study conducted by Andrew Wakefield about a decade ago. The research was recently debunked, and he's actually now considered one of the greatest frauds of the 21st century. He subsequently lost his license in the UK.

But this is another topic that deserves special attention. At either extreme, you have people who are very, very passionate about vaccines and otherwise. This issue requires its own session.

My son is diagnosed on the autism spectrum, and was born some weeks premature. Should I have waited until his "actual" age to have him immunized? I always battle with that.

What we do now, even in the NCU (Neonatal Care Unit), where the babies very tiny, they still give them the vaccines in the bigger countries at the chronological age, not at the corrected age.

We have babies on very toxic and potent antibiotics and medications. It's hard to tell whether the developmental issues are due to these medications, or just because they have a very immature brain and are exposed to different things.

So it's hard to tell with preterm babies, what the cause is. But to answer your question, even if I have a preterm baby in my practice, I still give them vaccines at the chronological age, not the corrected age.

I see your argument in that they're a lot tinier, and you're still giving them the same dose, so maybe there are some potential side effects there, but nothing that has been discouraged by the CDC and other health boards.

Autism--that's another topic. There's a strong genetic component, with environmental triggers. They think that certain babies are just born with that predisposition to having it, and when they're exposed to certain triggers (which others are not exposed to), then we tend to see effects along the autism spectrum. You have some who have no genetic links at all, so it's still a very baffling condition.

Dr. Remy congratulated the parents about their son of nine years, diagnosed on the autism spectrum. He started out non-verbal, and in this session was engaged, social, affectionate. He actually asked questions of the doctor, along with parents and another child. Dr. Remy said, "He's thriving! Congratulations, great parenting." Mom responded, "He's come a long way."

My observations of Dr. Remy: Confident, approachable, genial, professional, loves babies, respects parents, shrewd, chic, seasoned, responsive

Invited patrons received a beautiful gift set of aromatherapy candles. Mothers received a Journal to record memories and milestones of baby's first year. *See photo.*