

What exactly happens in there for nine whole months? Of course, the baby grows physically, but that's definitely not all! In fact, your womb is their first classroom. They're exploring and learning and even beginning to interact with the world around them before birth!

There are two main ways we know what is happening in the womb. We have ultrasounds in 3D, which provide a clearer picture of your baby's details and features, and 4D, which is like a live stream video from the womb! Also, researchers design experiments specifically to gain insight into the more complex aspects of human development.

Sensory Development: First Trimester1 – weeks 1-12

Your tiny baby is already moving. These early movements are mostly random and spontaneous, so researchers refer to them as motor babbling³. Their brain uses this exercise to gather information about their body and environment. Near the end of the first trimester, babies begin to make some controlled isolated movements, and they seem especially interested in touching their faces.

Sensory Development: Second Trimester – weeks 13-26

Early in the second trimester, babies develop the ability to swallow and begin ingesting amniotic fluid, the protective liquid that surrounds them in the womb. How it tastes is affected by the food you eat and can affect your baby's future taste preferences².

By week 22, your baby's ears are functional, and soon after, they begin to react to sounds with movement and changes in heart rate. Your baby can hear your voice, and even though they are not able to understand what you're saying, these early sounds establish pathways in the brain for future hearing and language skills⁴.

At this point, your baby is making more controlled and purposeful movements, such as scratching their temples, tickling their feet, and grasping their hands or umbilical cord. With these movements, babies are doing something called body mapping³, where they repeat specific motions to learn about their body.

You're feeling those kicks at this point, and they can feel you too. **Your baby responds to you rubbing your growing belly by increasing their arm, head, and mouth movements⁵**. Not only is it exciting to connect with your baby through touch, but it can actually improve your mood too!

Sensory Development: Third Trimester – weeks 27-40

The most frequent movements in the third trimester are facial. In fact, using 4D ultrasound, scientists have observed babies creating increasingly complex facial expressions, including furrowing their brows and wrinkling their noses⁶.

Your baby's eyes are still maturing and will continue to months after birth. Brain scans show that they can react to visual stimulation, such as flashes of light outside the womb. This exposure helps develop the retina⁷ – the inner part of the eyeball that forms what we see.

Unlike the eyes, your unborn baby's ears are functional, and they now not only process sounds, but also have a more social response to it. In an experiment, mothers were asked to repeat a certain nursery rhyme aloud twice a day for six weeks. **After that, their babies were more likely to respond with a decreased heart rate – a sign of comfort – to that same nursery rhyme when it was read by someone else⁸**.

After birth: Evidence of learning in the womb

At only a few days old, babies seem to discern between well-formed syllables, sounds that are used in language, and ill-formed syllables made of letters in a jumbled order⁹.

Research shows that babies pick up some patterns from music and language they hear repeatedly¹⁰.

Your role as a mother

Making choices that help you relax and stay healthy is important for both you and your growing baby. Many studies have shown what does affect growing babies and their mothers during pregnancy is stress¹¹. **When stress is severe or long lasting, it may have a more negative effect on the baby.** If you are experiencing extreme stress, seek help from your medical provider. If you are dealing with normal, everyday stressors, here are some natural ways to combat it¹²:

1. Understanding your triggers
2. Prioritizing rest
3. Eating healthy
4. Getting exercise
5. Relaxing
6. Counseling

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