



# Fetal Development



*Pregnancy takes nine months on an average and is counted from the first day of your last menstrual cycle; however, the baby's gestation period is 38 weeks. A woman gets pregnant (conceives) when the female egg is fertilised by the male sperm. The nine months of pregnancy are divided into trimesters: the first trimester comprises 12 weeks from conception; the second trimester is from 12 to 24 weeks; and the third trimester is 24 to 40 weeks.*

*To make things more understandable, we shall discuss month-wise fetal development as mentioned below:*

## **First month (1<sup>st</sup> – 4<sup>th</sup> week):**



**During this month, the fertilised egg attaches to the lining of your uterus, and the amniotic sac starts growing around it.**

The amniotic sac then acts as a cushion for the growing embryo. Moreover, during this month, the placenta forms in the uterus, which helps drive all the required nutrition from the mother to the baby. The eyes, ears, arms and legs of your baby then start forming. Furthermore, your baby's heart has begun to develop and starts beating by the end of the first month.

## **Second month (5<sup>th</sup> – 9<sup>th</sup> week):**



**In this month, face, limbs, toes, elbows and other external features continue to develop.**

Tissues, bones and vital organs begin to form; moreover, hair follicles and nipples also develop. The brain and heart develop more in this month. By the end of this month, your baby's heartbeat becomes prominent and is detectable on the ultrasound. Your baby is now an inch long.

## **Third month (10<sup>th</sup> – 14<sup>th</sup> week):**



**Your baby has now developed into a fetus. All organs and external features are now formed and continue to develop.**

By now, the eyes have completely developed and eyelids are formed. Teeth, outer ear and fingernails are now growing. Your tiny human's face is now well-developed, and genitals have started to appear. Your baby will be 4 inches long by now. Note that the chances of miscarriage are higher in the first three months and considerably decrease after the third month.

## **Fourth month (15<sup>th</sup> – 19<sup>th</sup> week):**



**Your baby can now suck their thumb and make various movements.**

By now their reproductive system is fully developed. Moreover, their heartbeat can be clearly heard via a Doppler instrument. Your little ones' eyelids, hair, eyelashes, nails and teeth are now more developed. Your baby is now ~6 inches long!

## **Fifth month (20<sup>th</sup> – 24<sup>th</sup> week):**



**Thin hair known as lanugo continues to cover your baby's head and body.**

A layer of thick substance, known as vernix caseosa, forms a protective layer around the baby to protect them from the amniotic fluid. The baby's external and internal features continue to grow, and you may now feel your baby move. Moreover, their bone marrow starts making blood cells. Your baby is ~10 inches long now, and their heartbeat should be easily audible with a stethoscope.

## **Sixth month (25<sup>th</sup> – 30<sup>th</sup> week):**



**Your baby can now open its eyes. Since they can now hear, they may react to loud sounds.**

The growth of your baby's brain is accelerated, and their nervous system takes control of certain functions. The formation of fingerprints, footprints and air sacs in the lungs is initiated. Your baby may be ~12 inches long by now.

## **Seventh month (26<sup>th</sup> – 29<sup>th</sup> week):**



**All the systems and organs keep developing. Moreover, they start storing fat.**

Your baby can now fully hear; thus, their movement will increase, and they may start reacting to external stimuli. During this month, the amniotic fluid starts decreasing.

Furthermore, your baby should grow up to 14 inches long and weigh ~1 kg (2 lb) by now. The survival rate of a prematurely born baby is better after the 27th week.

## **Eighth month (30<sup>th</sup> – 34<sup>th</sup> week):**



**Your baby is almost fully developed by now; however, their lungs require more time to completely mature.**

The brain development fastens, and their body continues to store fat. You may feel your baby kick by now. Moreover, they should grow around 18–20 inches long. Your baby's position starts changing into the position in which they will be born, known as the 'head down' position.

# **Ninth month (35<sup>th</sup> – 40<sup>th</sup> week or more):**



**This is the last month  
of pregnancy.**

Your baby should be ~18–20 inches long and weigh around ~2.5 kg by now. All organs and systems along with the baby's lungs are now fully developed and mature. The baby now moves closer to the birth canal, and you should be ready for your little ones' arrival.



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