



Healthy Lifestyle

Pregnancy week by week

Fetal development begins soon after conception. Find out how your baby grows and develops during the first trimester.

By Mayo Clinic Staff

You're pregnant. Congratulations! You'll undoubtedly spend the months ahead wondering how your baby is growing and developing. What does your baby look like? How big is he or she? When will you feel the first kick?

Fetal development typically follows a predictable course. Find out what happens during the first trimester by checking out this weekly calendar of events. Keep in mind that measurements are approximate.

It might seem strange, but you're not actually pregnant the first week or two of the time allotted to your pregnancy. Yes, you read that correctly!

Conception typically occurs about two weeks after your last period begins. To calculate your due date, your health care provider will count ahead 40 weeks from the start of your last period. This means your period is counted as part of your pregnancy — even though you weren't pregnant at the time.

The sperm and egg unite in one of your fallopian tubes to form a one-celled entity called a zygote. If more than one egg is released and fertilized, you might have multiple zygotes.

The zygote typically has 46 chromosomes — 23 from you and 23 from the father. These chromosomes help determine your baby's sex, traits such as eye and hair color, and, to some extent, personality and intelligence.

Soon after fertilization, the zygote travels down the fallopian tube toward the uterus. At the same time, it will begin dividing to form a cluster of cells resembling a tiny raspberry — a morula.

By the time it reaches the uterus, the rapidly dividing ball of cells — now known as a blastocyst

— has separated into two sections.

The inner group of cells will become the embryo. The outer group will become the cells that nourish and protect it. On contact, the blastocyst will burrow into the uterine wall for nourishment. This process is called implantation.

The placenta, which will nourish your baby throughout the pregnancy, also begins to form.

The fifth week of pregnancy, or the third week after conception, marks the beginning of the embryonic period. This is when the baby's brain, spinal cord, heart and other organs begin to form.

The embryo is now made of three layers. The top layer — the ectoderm — will give rise to your baby's outermost layer of skin, central and peripheral nervous systems, eyes, inner ears, and many connective tissues.

Your baby's heart and a primitive circulatory system will form in the middle layer of cells — the mesoderm. This layer of cells will also serve as the foundation for your baby's bones, muscles, kidneys and much of the reproductive system.

The inner layer of cells — the endoderm — will become a simple tube lined with mucous membranes. Your baby's lungs, intestines and bladder will develop here.

By the end of this week, your baby is likely about the size of the tip of a pen.

Growth is rapid this week. Just four weeks after conception, the neural tube along your baby's back is closing and your baby's heart is pumping blood.

Basic facial features will begin to appear, including passageways that will make up the inner ears and arches that will contribute to the jaw. Your baby's body begins to take on a C-shaped curvature. Small buds will soon become arms and legs.

Seven weeks into your pregnancy, or five weeks after conception, your baby's brain and face are rapidly developing. Tiny nostrils become visible, and the eye lenses begin to form. The arm buds that sprouted last week now take on the shape of paddles.

By the end of this week, your baby might be a little bigger than the top of a pencil eraser.

Eight weeks into your pregnancy, or six weeks after conception, your baby's arms and legs are growing longer, and fingers have begun to form. The shell-shaped parts of your baby's ears also are forming, and your baby's eyes are visible. The upper lip and nose have formed. The trunk of your baby's body is beginning to straighten.

By the end of this week, your baby might be about 1/2 inch (11 to 14 millimeters) long.

In the ninth week of pregnancy, or seven weeks after conception, your baby's arms grow, develop bones and bend at the elbows. Toes form, and your baby's eyelids and ears continue developing.

By the end of this week, your baby might be about 3/4 inch (20 millimeters) long.

By the 10th week of pregnancy, or eight weeks after conception, your baby's head has become more round. The neck begins to develop, and your baby's eyelids begin to close to protect his or her developing eyes.

At the beginning of the 11th week of pregnancy, or the ninth week after conception, your baby's head still makes up about half of its length. However, your baby's body is about to catch up, growing rapidly in the coming weeks.

Your baby is now officially described as a fetus. This week your baby's eyes are widely separated, the eyelids fused and the ears low set. Red blood cells are beginning to form in your baby's liver. By the end of this week, your baby's external genitalia will start developing into a penis or clitoris and labia majora.

By now your baby might measure about 2 inches (50 millimeters) long from crown to rump and weigh almost 1/3 ounce (8 grams).

Twelve weeks into your pregnancy, or 10 weeks after conception, your baby is developing fingernails. Your baby's face now has a human profile.

By now your baby might be about 2 1/2 inches (60 millimeters) long from crown to rump and weigh about 1/2 ounce (14 grams).

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