

**FAQs** 

# How Your Fetus Grows During Pregnancy

Frequently Asked Questions

# **Pregnancy Basics**

#### How does pregnancy begin?

Fertilization, the union of an egg and a sperm into a single cell, is the first step in a complex series of events that leads to pregnancy. Fertilization takes place in the fallopian tube. Over the next few days, the single cell divides into multiple cells.

At the same time, the small cluster of dividing cells moves through the fallopian tube to the lining of the uterus. There it implants and starts to grow. For 8 weeks after fertilization, it is called an embryo. From 9 weeks after fertilization until birth, it is called a fetus.

# What is the placenta?

The placenta is formed from some of these rapidly dividing cells. The placenta functions as a life-support system during pregnancy. Oxygen, nutrients, and hormones are transferred across the placenta to the fetus. Waste products from the fetus are transferred back across the placenta for removal.

# How will my uterus change during pregnancy?

During pregnancy, the lining of your uterus thickens and its blood vessels enlarge to provide nourishment to the fetus. As pregnancy progresses, your uterus expands to

make room for the fetus. By the time your baby is born, your uterus will have expanded to many times its normal size.

#### How long does pregnancy last?

A normal pregnancy lasts about 40 weeks from the first day of your last menstrual period (LMP). Pregnancy is assumed to start 2 weeks after the first day of the LMP. So an extra 2 weeks is counted at the beginning of your pregnancy when you are not actually pregnant. The 40 weeks of pregnancy includes those extra 2 weeks.

# How is the length of my pregnancy measured?

Pregnancy can be divided into weeks and sometimes days. A pregnancy that is "36 and 3/7 weeks" means "36 weeks and 3 days of pregnancy." The 40 weeks of pregnancy often are grouped into three trimesters. Here's how the trimesters are defined:

- First trimester (first day of LMP to 13 weeks and 6 days): The time when fertilization and major organ development occurs.
- Second trimester (14 weeks and 0 days to 27 weeks and 6 days): The time of rapid growth and development.
- Third trimester (28 weeks and 0 days to 40 weeks and 6 days): The time when the
  fetus's weight increases and the organs mature so they will be ready to function after
  birth.

#### What is the estimated due date?

The day your baby is due is called the estimated due date (EDD). Only about 1 in 20 women give birth on their due dates. Still, the EDD is useful for a number of reasons. It determines your fetus's gestational age throughout pregnancy so that the fetus's growth can be tracked. It also provides a timeline for certain tests that you will have throughout your pregnancy.

# How is my estimated due date calculated?

Your EDD is calculated from the first day of your LMP. But when the date of the LMP is uncertain, an ultrasound exam may be done during the first trimester to estimate the due date.

During this <u>ultrasound exam</u>, the "crown–rump length" is measured. This is the length of the embryo or fetus from the top of the head ("crown") to the bottom of the area that will become the buttocks ("rump"). If you are less than 7 weeks pregnant, it is not possible to see the embryo's crown or rump, so the greatest length of the embryo is measured. A formula is then used to estimate the gestational age based on this measurement.

If you have had in vitro fertilization (IVF), the EDD is set by the age of the embryo and the date that the embryo is transferred to the uterus.

#### How Your Fetus Grows

#### What happens during weeks 1 to 8 of pregnancy?

- The brain and spine begin to form.
- · Cardiac tissue starts to develop.
- Muscles of the eyes, nose, and mouth form.
- Webbed fingers and toes poke out from developing hands and feet.
- The lungs start to form the tubes that will carry air in and out after birth.
- The inner ear begins to develop.

# What happens during weeks 9 to 12 of pregnancy?

- Cartilage for the limbs, hands, and feet start to form but won't harden into bones for a few weeks.
- Eyelids form but remain closed.
- Genitals begin to form.
- · Liver begins development.
- Kidneys begin making urine.
- Pancreas starts making insulin.
- Fingernails form.

# What happens during weeks 13 to 16 of pregnancy?

Bones harden, especially the long bones.

- Skin is thin and see-through but will start to thicken soon.
- · Toenails form.
- Neck is defined and lower limbs are developed.
- Hearing starts to develop.
- Lungs begin to form tissue that will allow them to exchange oxygen and carbon dioxide when breathing starts after birth.

#### What happens during weeks 17 to 20 of pregnancy?

- The part of the brain that controls motor movements is fully formed.
- Digestive system is working.
- Ears, nose, and lips are recognizable on an ultrasound exam.
- In girls, the uterus and vagina are starting to form.
- Soft, downy hair called lanugo starts to form and cover the body.

# What happens during weeks 21 to 24 of pregnancy?

- · Kicks and turns are stronger.
- Sucking reflex is developing.
- Fat is forming under the skin.
- Ridges form in the hands and feet that later will be fingerprints and footprints.
- Skin is wrinkled and reddish from visible blood vessels.

# What happens during weeks 25 to 28 of pregnancy?

- Lungs are fully formed but not yet ready to function outside the uterus.
- Loud sounds can make your fetus respond with a startled movement and pull in the arms and legs.
- Eyelids can open and close.
- Lungs begin to make surfactant, a substance needed for breathing after birth.
- Nervous system is developing.

Skin begins to look smoother as more fat is added.

#### What happens during weeks 29 to 32 of pregnancy?

- The fetus can stretch, kick, and make grasping motions.
- Eyes can sense changes in light.
- Bone marrow is forming red blood cells.
- · Head may have some hair.
- In boys, the testicles have begun to descend from the scrotum.
- Lanugo begins to disappear.

#### What happens during weeks 33 to 36 of pregnancy?

- Bones harden but the skull remains soft and flexible.
- Fingernails have grown to the end of the fingers.
- Limbs begin to look chubby.
- The fetus may turn into a head-down position for birth.

#### What happens during weeks 37 to 40 of pregnancy?

- Circulatory system is done developing.
- Musculoskeletal system also is done developing.
- Lungs, brain, and nervous system are finishing their development.
- Fat continues to be added all over to keep the baby warm after birth.

#### **Glossary**

**Cell:** The smallest unit of a structure in the body. Cells are the building blocks for all parts of the body.

**Egg:** The female reproductive cell made in and released from the ovaries. Also called the ovum.

**Embryo:** The stage of development that starts at fertilization (joining of an egg and sperm) and lasts up to 8 weeks.

**Fallopian Tube:** One of a pair of tubes through which an egg travels from the ovary to the uterus.

**Fertilization:** A multistep process that joins the egg and the sperm.

**Fetus:** The stage of human development beyond 8 completed weeks after fertilization.

**Genitals:** The sexual or reproductive organs.

**Gestational Age:** How far along a woman is in her pregnancy, usually reported in weeks and days.

**Hormones:** Substances made in the body that control the function of cells or organs.

**In Vitro Fertilization (IVF):** A procedure in which an egg is removed from a woman's ovary, fertilized in a laboratory with the man's sperm, and then transferred to the woman's uterus to achieve a pregnancy.

**Lanugo:** Soft, downy hair that covers the fetus's body.

**Last Menstrual Period (LMP):** The date of the first day of the last menstrual period before pregnancy. The LMP is used to estimate the date of delivery.

**Oxygen:** An element that we breathe in to sustain life.

**Placenta:** An organ that provides nutrients to and takes waste away from the fetus.

**Scrotum:** The external genital sac in the male that contains the testicles.

**Sperm:** A cell made in the male testicles that can fertilize a female egg.

**Surfactant:** A substance made by cells in the lungs. This substance helps keep the lungs elastic and keeps them from collapsing.

**Testicles:** Paired male organs that make sperm and the male sex hormone testosterone. Also called testes.

**Trimesters:** The 3-month periods of time in pregnancy. They are referred to as first, second, or third.

**Ultrasound Exam:** A test in which sound waves are used to examine inner parts of the body. During pregnancy, ultrasound can be used to check the fetus.

**Uterus:** A muscular organ in the female pelvis. During pregnancy, this organ holds and nourishes the fetus. Also called the womb.

**Vagina:** A tube-like structure surrounded by muscles. The vagina leads from the uterus to the outside of the body.

# If you have further questions, contact your ob-gyn.

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**FAQ156** 

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