

WEEKS OF PREGNANCY

Did you know...

The most active period of development in an unborn child takes place between weeks 5 and 10 (LMP) when most of the organ systems develop.

— Source: *Netter's Atlas of Human Embryology*, 2002

Prenatal development can be categorized into three stages of development: cell division, embryonic development (weeks 5-10 since last menstrual period, or LMP) and fetal development (weeks 11-40 since LMP).

You may hear doctors refer to an unborn child as either an **embryo** which is Latin for "bud" or a **fetus** which is Latin for "offspring." The unborn child is called an embryo during the first 10 weeks of a pregnancy (or 8 weeks from fertilization). After 10 weeks since LMP the unborn child is called a fetus.

The size of the embryo and fetus is commonly measured using the crown-rump (CR) length. This measurement is the straight-line distance from the top of the head to the bottom of the rump or buttocks. The measurements referred to in this section are crown-rump lengths.

Fertilization (2 weeks LMP)

Ovulation/fertilization/conception

- Size: About the size of a pinhead.
- Sperm fertilizes the ovum or egg within hours after ovulation in the far end of the fallopian tube.
- Cell division begins just hours after fertilization and the fertilized ovum becomes known as a zygote.



Photo ©: Lennart Nilsson

2 weeks after fertilization (4 weeks LMP)

- Size: Approximately 1mm long (less than 4 hundredths of an inch).
- During the days following fertilization, cell division continues while the fertilized ovum moves down the fallopian tube toward the uterus.
- Approximately 6 days after conception (fertilization) the fertilized ovum, now referred to as a blastocyst, begins to implant itself into the wall of the uterus.



Photo ©: Lennart Nilsson

Photo above shows embryo at five weeks after the first day of the last menstrual period or three weeks after fertilization.

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4 weeks after fertilization (6 weeks LMP)

- Size: 4 to 5 mm long from crown to rump (less than 1/4 of an inch).
- Heart is forming and begins to beat.
- Arm and leg buds are present.
- The central nervous system and other organs are developing.
- Development of the brain and spinal cord begins.



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6 weeks after fertilization (8 weeks LMP)

- Size: 22-24 mm long from crown to rump (greater than 3/4 of an inch).
- Head is large in comparison to trunk.
- Fingers and toes are developing.
- Eyes and ears are beginning to form.

8 weeks after fertilization (10 weeks LMP)

- Size: 40 mm or 1.5 inches long from crown to rump.
- Embryo now known as a fetus.
- All major body organs have started to form.
- Skeletal bones are forming.
- Sex organs begin to develop.
- Eyelids developing.



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10 weeks after fertilization (12 weeks LMP)

- Size: 60 mm or 2.3 inches long from crown to rump.
- Weight: 14 grams or 1/2 ounce.
- Eyelids closing or closed at 11 weeks. They won't reopen until the 28th week.
- Fingers and toes differentiated and fingernails are developing.
- Fetus is beginning to show signs of gender.
- Some hair begins to appear.
- Organs and structures continue to grow.



Photo ©: Lennart Nilsson

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- 12 weeks after fertilization (14 weeks LMP)**
- Size: 87 mm or 3.4 inches long from crown to rump.
 - Weight: 45 grams or 1.5 ounces.
 - Sex of fetus is distinguishable externally.
 - Neck is well defined.



Photo ©: Lennart Nilsson

- 14 weeks after fertilization (16 weeks LMP)**
- Size: 120 mm or 4.7 inches long from crown to rump.
 - Weight: 110 grams or 3.8 ounces.
 - Head is erect.
 - Lower limbs are well developed.
 - Skin is transparent.
 - Fetus makes active movements.

- 16 weeks after fertilization (18 weeks LMP)**
- Size: 140 mm or 5.5 inches long from crown to rump.
 - Weight: 200 grams or 7 ounces.
 - Ears stand out from head. Fetus can hear sound.
 - Fetus is able to swallow.



Photo ©: Lennart Nilsson

- 18 weeks after fertilization (20 weeks LMP) Midpoint of pregnancy**
- Size: 160 mm or 6.3 inches long from crown to rump.
 - Weight: 320 grams or 11.3 ounces.
 - Hair called lanugo covers body.
 - Vernix caseosa is present. This waxy substance covers the fetus and keeps the skin from becoming chapped from the amniotic fluid.
 - Early toenail development taking place.

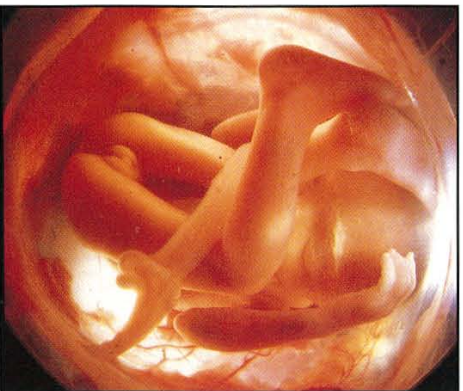
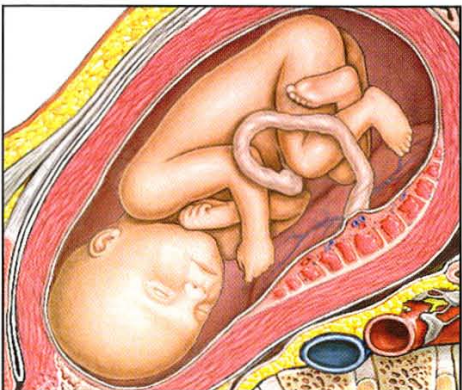


Photo ©: Lennart Nilsson



ADAMI

20 weeks after fertilization

(22 weeks LMP)

- Size: 190 mm or 7.5 inches long from crown to rump.
- Weight: 460 grams or 1 pound.
- Head and body hair (lanugo) is visible.
- Fetus can feel touch.
- An infant born now has a small chance of surviving.

22 weeks after fertilization

(24 weeks LMP)

- Size: 210 mm or 8.2 inches long from crown to rump.
- Weight: 630 grams or 1.4 pounds.
- Eyebrows and eyelashes are recognizable.
- Skin is wrinkled and red.
- Inner ear is developed which means the fetus may be able to tell when it is upside down or right side up.
- Lungs continue to develop.
- Less than half of the infants born now survive with proper care.

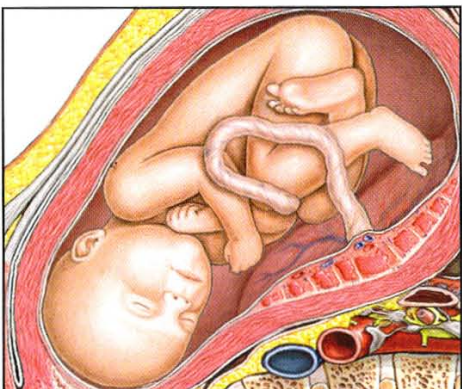


Photo ©: Lennart Nilsson

24 weeks after fertilization

(26 weeks LMP)

- Size: 230 mm or 9 inches long from crown to rump.
- Weight: 820 grams or 1.8 pounds.
- Fingernails are present.
- The body of the fetus is thin. Fetus will begin to store fat.
- Approximately 4 out of 5 infants born now survive with proper care.

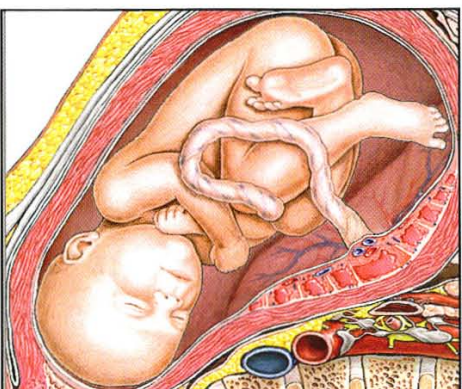


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26 weeks after fertilization

(28 weeks LMP)

- Size: 250 mm or 9.8 inches long from crown to rump.
- Weight: 1100 grams or 2.4 pounds.
- Fetus has thin red skin.
- Vernix caseosa covers the fetus.
- Eyes are partially open and eyelashes are growing.
- More than 9 out of 10 infants born now survive with proper care.



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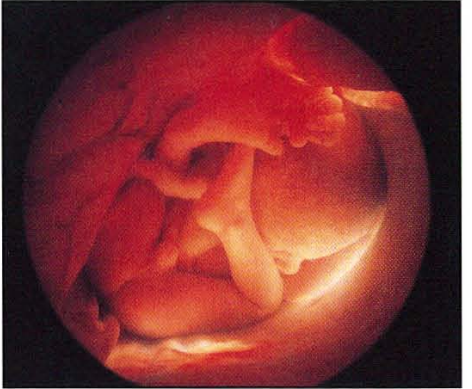
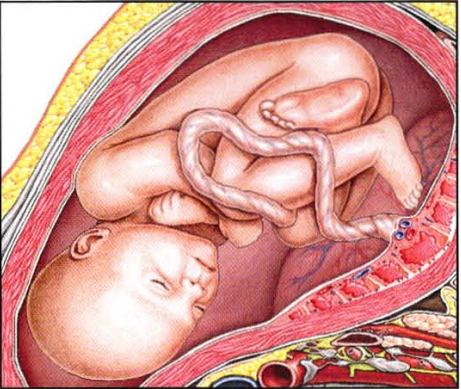


Photo ©: Lennart Nilsson

28 weeks after fertilization (30 weeks LMP)

- Size: 270 mm or 10.6 inches long from crown to rump.
- Weight: 1300 grams or 2.9 pounds.
- Eyes are open.
- Hair is visible on the head.
- Skin is slightly wrinkled.
- Fetus is making breathing movements.



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30 weeks after fertilization (32 weeks LMP)

- Size: 280 mm or 11 inches long from crown to rump.
- Weight: 1800 grams or 4 pounds.
- Toenails are present.
- Body is filling out.
- Testes descending in males.
- Infants born at this age usually survive.

32 weeks after fertilization (34 weeks LMP)

- Size: 300 mm or 11.8 inches long from crown to rump.
- Weight: 2100 grams or 4.6 pounds.
- Fingernails now reach fingertips.
- Skin is pink and smooth.
- Lanugo hair is decreasing.

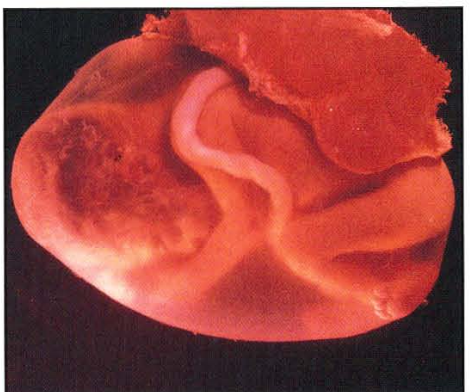
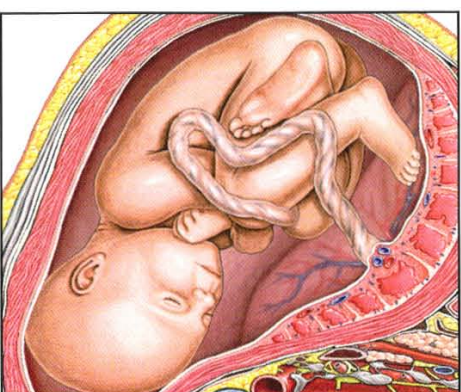


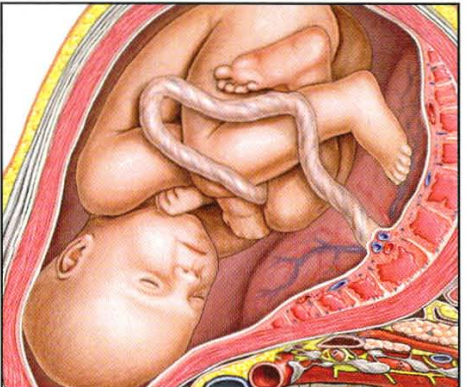
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34 weeks after fertilization (36 weeks LMP)

- Size: 320 mm or 12.5 inches long from crown to rump.
- Weight: 2500 grams or 5.5 pounds.
- Fetus continues to increase body fat.
- Infants born now have an excellent chance of survival.



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- 36 weeks after fertilization (38 weeks LMP)**
- Size: 340 mm or 13.4 inches long from crown to rump.
 - Weight: 2900 grams or 6.4 pounds.
 - Body of fetus is plump.
 - Lanugo hairs are almost absent.
 - Toenails reach tips of toes.
 - Fetus is considered full term.



Photo ©: Lennart Nilsson

- 38 weeks after fertilization (40 weeks LMP)**
- Size: 360 mm or 14 inches long from crown to rump.
 - Weight: 3400 grams or 7.5 pounds.
 - Fetus is fully developed.
 - Fetus receives antibodies from the mother that will strengthen its immune system.

RISKS OF PREGNANCY

Did you know...

Approximately 6 million women become pregnant each year in the United States and more than 10,000 give birth each day.

—Source: Centers for Disease Control and Prevention (CDC), 2002