How babies come to be.

Pregnancy video

An egg goes down the fallopian tube after ovulation; if a sperm makes its way from the vagina through the uterus to the egg within 24 hours, conception is likely to occur.
Egg surrounded by sperm. A sperm penetrates the egg and conception occurs.
Pregnancy Lasts 37-42 weeks

There are 3 forms of pregnancy:
Zygote
Embryo
Fetus
- It is called a zygote for 2 weeks or until it reaches the uterus.
- Only about the size of a pinhead.
- The zygote may float freely in the uterus for about 48 hours before implanting.
- Upon implantation, complex connections between the mother and **Embryo** develop to form the placenta.
- Embryo is the 2nd stage of pregnancy. It lasts from about the 3rd week through the eighth week of pregnancy.
- The embryo grows rapidly during this time and several important and amazing changes occur:
  - Major systems of the body form (heart, lungs, bones, muscles. These are not ready to function yet and will continue to develop.
  - Brain takes control of body systems.
  - The “housing” for the baby forms.
**Fetus** is the third and last period of pregnancy. Begins about the eighth week and lasts until birth.

Fetus is “Young One” in Latin because the fetus resembles a miniature baby that has everything it needs, but still needs time to develop and mature before birth.
Mom’s First Trimester (about 13 weeks long)

**Month 1**
Missed menstrual period
Other signs may yet not be noticeable

**Month 2**
Breasts begin to swell
Pressure on bladder from enlarged uterus which results in needing to urinate more.
Possible nausea / morning sickness.
Fatigue is common.

**Month 3**
Breasts become firmer and fuller, may ache
Nausea, fatigue, and frequent urination
Uterus about the size of an orange.
Weight gain about 2-4 pounds.
• By the end of the first month, the embryo is about 1/10 of an inch long. The heart, which is no larger than a poppy seed, has begun beating. Head, mouth, liver, and intestines begin to take shape.
twins
Two Months

- The embryo is about 1 inch long and has distinct, slightly webbed fingers. Veins are clearly visible. The heart has divided into right and left chambers.
The embryo grows to about an inch long and has distinct, slightly webbed fingers. Veins are clearly visible. The placenta is already nourishing the baby through the umbilical cord. The heart has divided into right and left chambers. Veins are clearly visible. Most vital organs are developed.
Two Months

- Placenta
- Umbilical cord
- Liver
- Eye
- Brain
- Amniotic sac
- Chorionic sac
Three Months

- By now the fetus is 2 1/2 to 3 inches long and is fully formed. He has begun swallowing and kicking. All organs and muscles have formed and are beginning to function.
Nearing the end of the first trimester / at eight weeks, your baby is called a *fetus*. The arms, legs, hand, and fingers are fully developed. The nails on his fingers and toes are starting to develop.
Month 4
- Skin – Every woman’s body reacts differently to pregnancy
  - Oily, dry or scaly
  - Stretch marks
  - Facial skin may darken
- Emotions
  - Need a few extra breaks or time to relax.
  - May experience mood swings, depression and bad dreams.
  - Feel baby’s movements
- Abdomen continues to grow
- Most early discomforts gone
- Appetite increases
Mom’s Second Trimester

Month 5
- Apparent enlarged abdomen
- Slight fetal movement felt
- Increased size may affect posture

Month 6
- Strong fetal movements, some may be visible.
- Weight gain may total 10-12 pounds
Four Months

- Your baby is covered with a layer of thick, downy hair called **lanugo**. His heartbeat can be heard clearly. This is when you may feel your baby's first kick.
Your baby is about 2 inches long. The first outlines of the face are showing.
Five Months

- A protective coating called *vernix caseosa* begins to form on baby's skin. By the end of this month, your baby will be nearly 8 inches long and weigh almost a pound.
If you have an ultrasound, you might see him sucking his thumb. By the end of this month, your baby will be nearly 8 inches long and weigh almost a pound. The skull bones are the most important bones being developed at this time.
Six Months

- Eyebrows and eyelids are visible. Your baby's lungs are filled with amniotic fluid, and he has started breathing motions. If you talk or sing, he can hear you.
There is a lot of evidence to show that the baby can hear the outside world. Fingerprints are formed.
Month 7

- Abdomen enlarges
- Fatigue is common
- Expectant fathers take more interest because they can feel the baby move.

- Baby moves a lot
  - A mother should feel the baby move every couple of hours. If not, she should call her doctor.
  - Called Quickening
Mom’s Third Trimester

Month 8
- Backache, leg cramps, shortness of breath, heartburn.
- Fetal movement disturbs mother’s sleep.
- Weight gain totals 18-20 pounds.

Month 9
- Baby dropping into pelvis, in preparation for delivery, makes breathing easier.
- Discomforts due to size continue.
- False labor pains (Braxton Hicks)
- Total weight gain of 25-30 pounds
Seven Months

- By the end of the seventh month, your baby weighs about $3 \frac{1}{2}$ pounds and is about 12 inches long. His body is well-formed. Fingernails cover his fingertips.
He may try to turn toward a source of bright light.
Eight Months

- Your baby is gaining about **half a pound per week**, and layers of fat are piling on. He has probably turned head-down in preparation for birth. He weighs between 4 and 6 pounds.
8 months

- Scrotum
- Penis
- Umbilical cord
- Placenta
Nine Months

- Your baby is a hefty 6 to 9 pounds and measures between 19 and 22 inches. As he becomes more crowded, you may feel him move around less.
The lungs develop in preparation for breathing and the head is now head-down. The last few weeks, the baby “drops” in preparation for delivery – giving the mother a little breathing space. Called Lightening
Pre-natal Development “House”

Uterus / Womb

The fetus grows inside this.
Flat pancake shaped organ with amniotic sac attached to one side and the umbilical cord attached to the other.
filters nutrients and oxygen to the fetus.
At 4 months completely developed
By birth it is 1” thick, 8” diameter, 1lb
If the woman is undernourished during her pregnancy, the placenta does not transfer essential nutrients to the fetus.
Umbilical Cord

20” long and reaches from fetus’ stomach to the placenta.
Carries away waste from the baby and returns the waste products back to the mother.
Brings oxygen, food, and nutrient rich blood to the embryo to keep it alive.

- Thick garden-like hose that will not knot due to Whartons’ Jelly substance.
Amniotic Sac and Amniotic Fluid

Sac contains embryo and amniotic fluid
A clear and transparent membrane that is very strong until broken
4 cups of amniotic fluid at birth that is replenished 9 times a day.
The fluid protects baby from bumps, bruises, and jolts
Prevents shock to the fetus, keeps a constant temperature, and keeps the fetus from adhering to the uterine wall.
Placenta, Amniotic Sac & Umbilical Cord
Weight gain during pregnancy
25-30 pounds

- Baby – 7 ½ pounds
- Placenta – 1 ½ pounds
- Uterus – 2 pounds
- Amniotic fluid – 1 ½ pound
- Extra blood and water – 4 ½ pounds
- Breast tissue – 3 pounds
- Maternal stores of protein – 4 pounds
Remember to avoid:

- No medications, including over-the-counter drugs, unless approved by your doctor.
- No drugs or alcohol.
- No x-rays.
- No saunas and hot tubs.
- No vaccinations during pregnancy.
- Avoid cats, cattle, sheep and pigs. They have a parasite that causes toxoplasmosis.
Danger Signals
Call the doctor if any of these problems occur.

- Vaginal bleeding
- Sharp abdominal pain/cramping
- Loss of fluid
- Frequent dizzy spells
- Visual disturbances
- Nausea or vomiting
- Sudden and excessive swelling of face, hands, and feet
- Headache
- Burning, painful urination
- Fever
- Vaginal discharge
Pregnancy Issues

- **Toxemia** – high blood pressure
- **Ectopic Pregnancy** – implantation of the zygote in the fallopian tube. Immediate termination of the pregnancy.
- **Stillborn** – fetus dying before birth
- **Spontaneous Abortion** – occurs before 5th month. Nature's way of expelling a baby that has no chance of survival.
It is Time......
Baby’s Arrival
For 9 months, the unborn child has been developing in the womb. Now the baby is ready to make an exit. Prelabor is a period of irregular uterine contractions in which the cervix thins, softens, and may begin to dilate. Labor is commonly divided into three stages wherein the baby is expelled from the uterus through the birth canal and into the world. It begins with irregular contractions of the uterus that occur every 20 to 30 minutes. As labor progresses, the contractions increase in frequency and severity. For women giving birth for the first time, labor will usually last between 12 to 24 hours. However, for women who have given birth before, labor usually averages only 6 hours.
During the first stage, uterine contractions begin (left) and are usually spaced from 10 to 20 minutes apart. Initially the contractions are gentle, but they tend to become more powerful and sometimes uncomfortable. The cervix dilates with each contraction (right), and the baby’s head rotates to fit through the mother’s pelvis.
The second stage of labor usually lasts about 90 minutes. During this stage, the cervix opens sufficiently and the baby begins to move down the birth canal. The mother pushes, or bears down, in response to pressure against her pelvic muscles. The crown of the baby’s head becomes visible in the widened birth canal.
As the head emerges entirely (*left*) the physician turns the baby’s shoulders (*right*), which emerge one at a time with the next contractions. The rest of the body then slides out relatively easily, and the umbilical cord is sealed and cut.
Following the exit of the infant, the third stage of labor occurs. The uterus continues to contract, expelling the severed umbilical cord and placenta, called the afterbirth. The third stage occurs within ten minutes of the baby’s birth.
Why a C-Section?

- Prolapsed cord
- Poor presentation
- Mother too small
- Baby too big
- Placenta praevia
- Placenta abruption
- Fetal distress
- Mother or child cannot tolerate labor
- STDs
- Previous C-section
- Toxemia
* Ob/Gyn – Obstetrician (pregnancy doctor) and Gynecology (female doctor)
* Pediatrician – Children’s doctor.
* Midwife – Woman with some training in delivering babies.
* Birthing chair – A chair that allows a woman to sit up to give birth instead of laying down so that gravity will help.
* Lamaze – A technique to relax and breath and push at the proper times.
* Birthing Room – A single room used for both labor and delivery.
Most women prefer some kind of anesthesia.
* Natural (unmedicated) childbirth is becoming more popular because the anesthesia can make the newborn baby less alert after birth.
* An epidural is given in the spinal sheath and deadens the patient from the waist down. Most common form.
* A saddle block deadens the area where you ride a saddle.
* A paracervical block, also known as a cervical block deadens the cervix.
* A pudendal block is given in the pudendal nerve and will numb the whole bottom and legs.

The cervix must dilate to some degree before any anesthesia is given. For this reason, a mother needs to learn some breathing and relaxation techniques.
Crossword Puzzle

Labor and Delivery Terms