



**RAMA  
UNIVERSITY**

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# **FACULTY OF NURSING**



# FETAL DEVELOPMENT

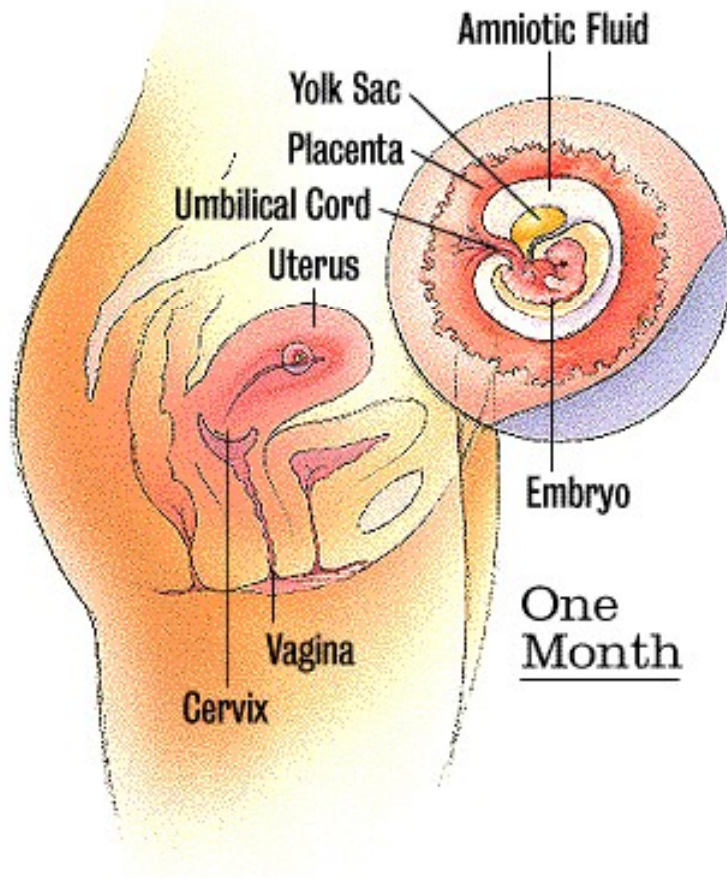
By

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**H.O.D (OBS/GYN)**

**RAMA COLLEGE OF NURSING**

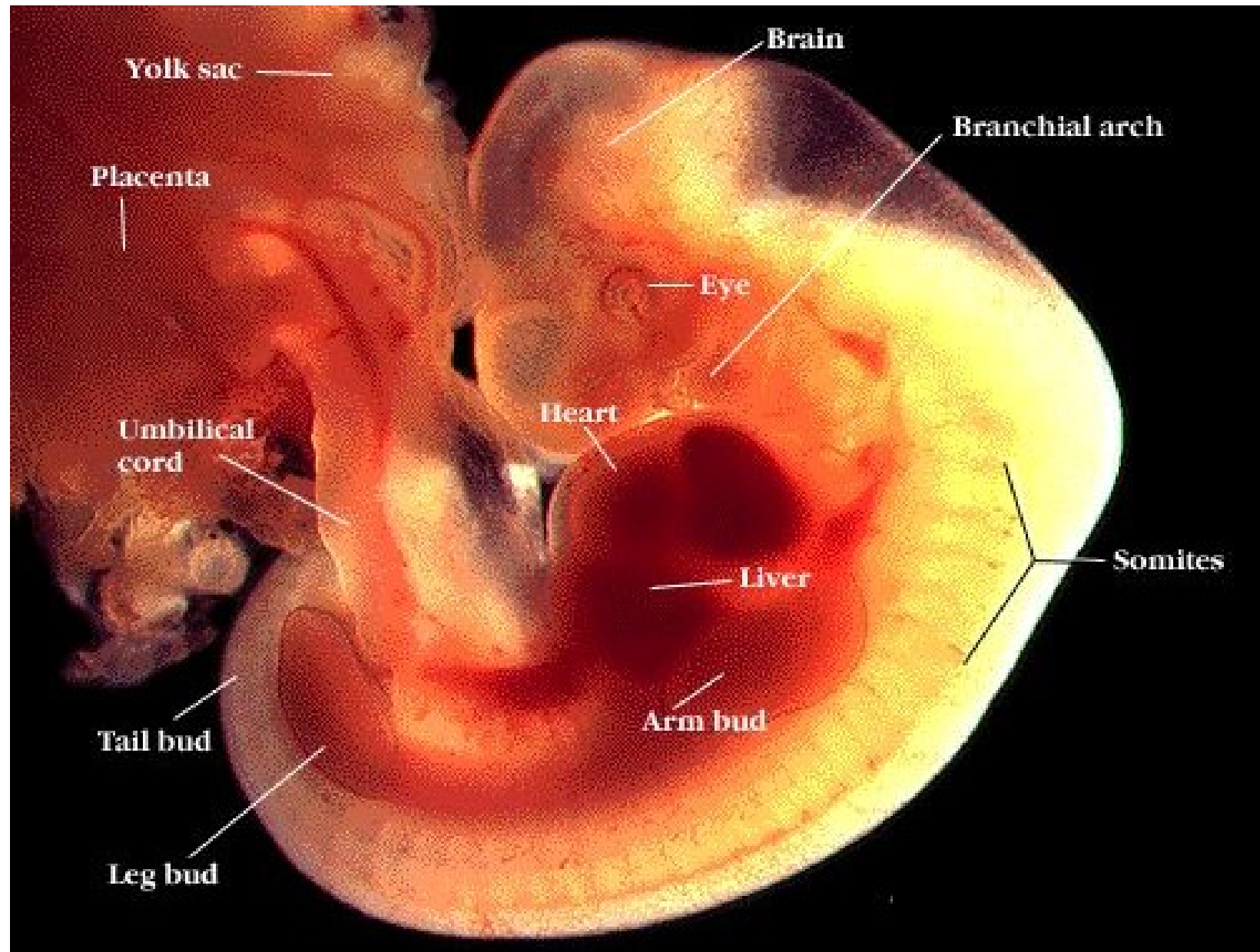
# FIRST MONTH



- 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.



# FIRST MONTH

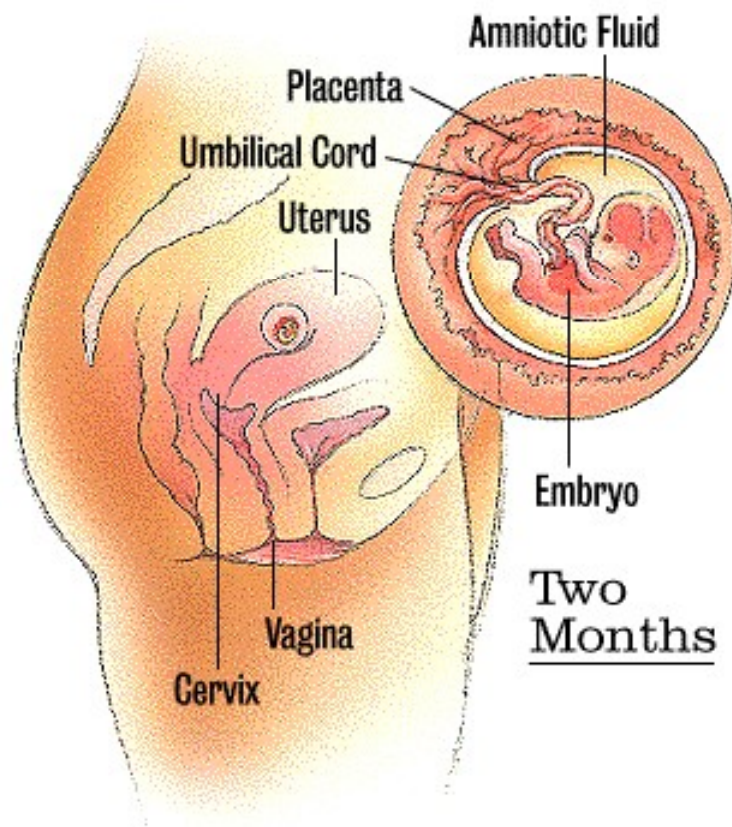


## 0-4 WEEKS

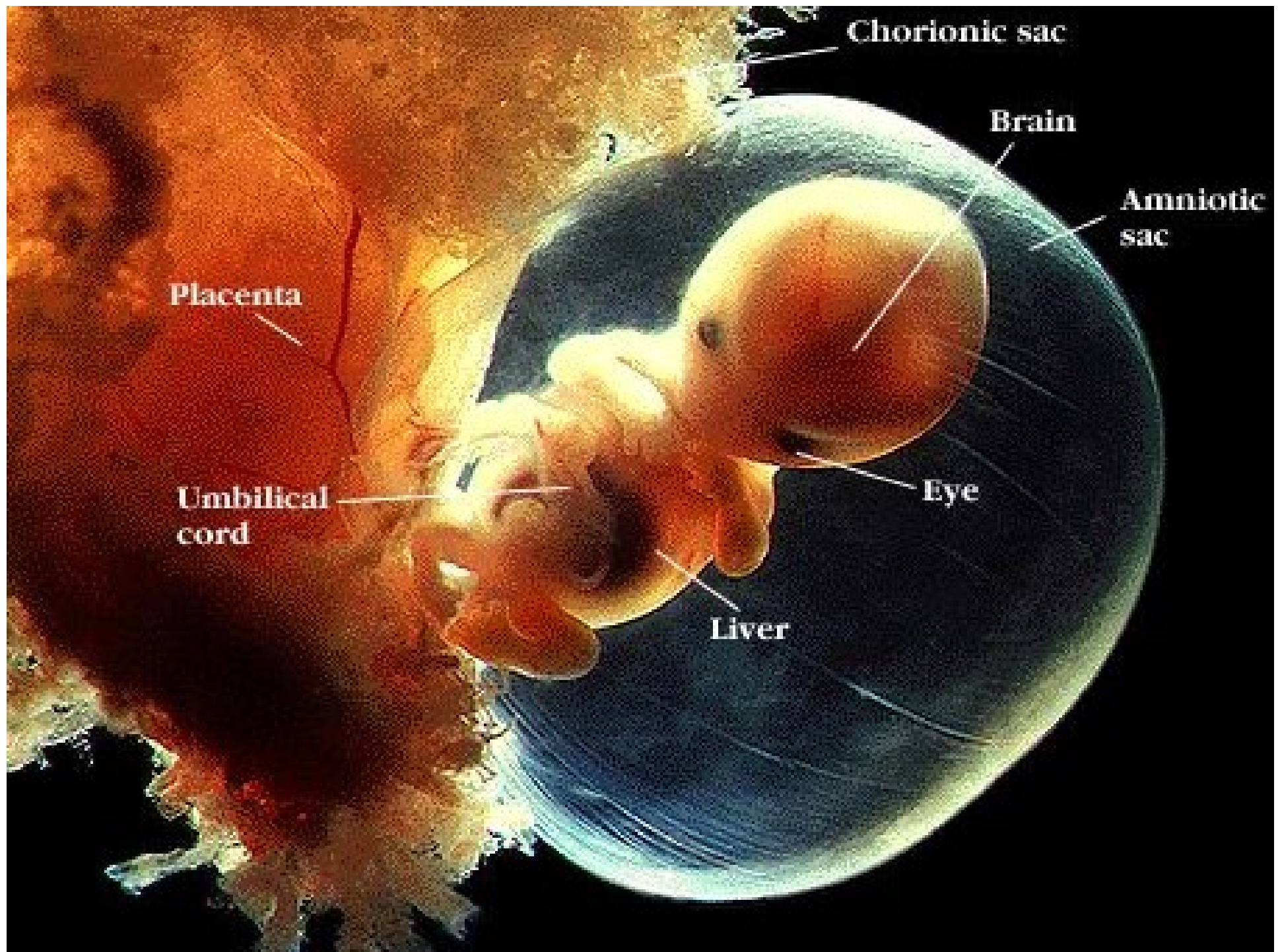
- Primitive form of some body system
- Heart develops and begins to beat
- Covered with a layer of skin
- Limb buds form
- Gender determines



## 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.



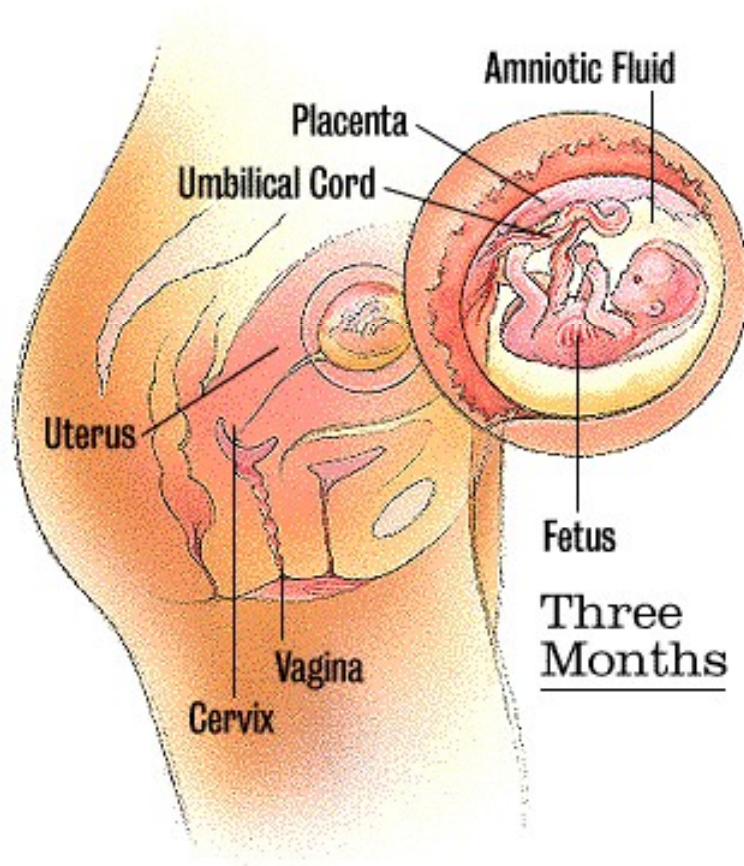
## 4-8 WEEKS

- Very rapid cell division
- More body systems laid down in primitive forms
- Blood is pumped around the vessels
- Lower respiratory systems begins
- Head and facial features develop
- Early movements
- Visible on USG from 6week





## THREE MONTHS



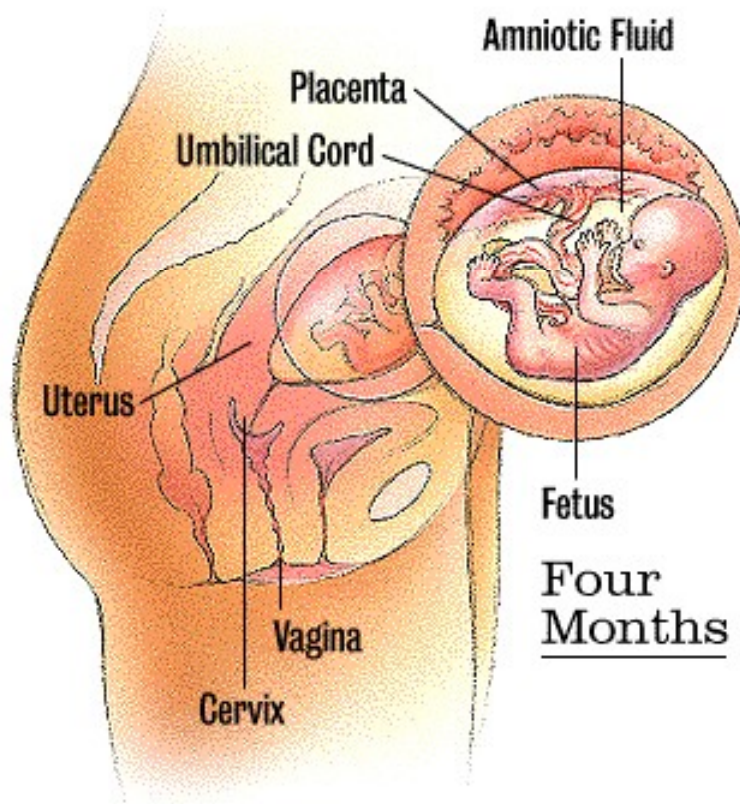
- By now the fetus is **2 1/2 to 3 inches long** and is fully formed. He has begun swallowing and kicking. All **organs** and **muscles** have formed and are beginning to function.

## 8-12 WEEKS

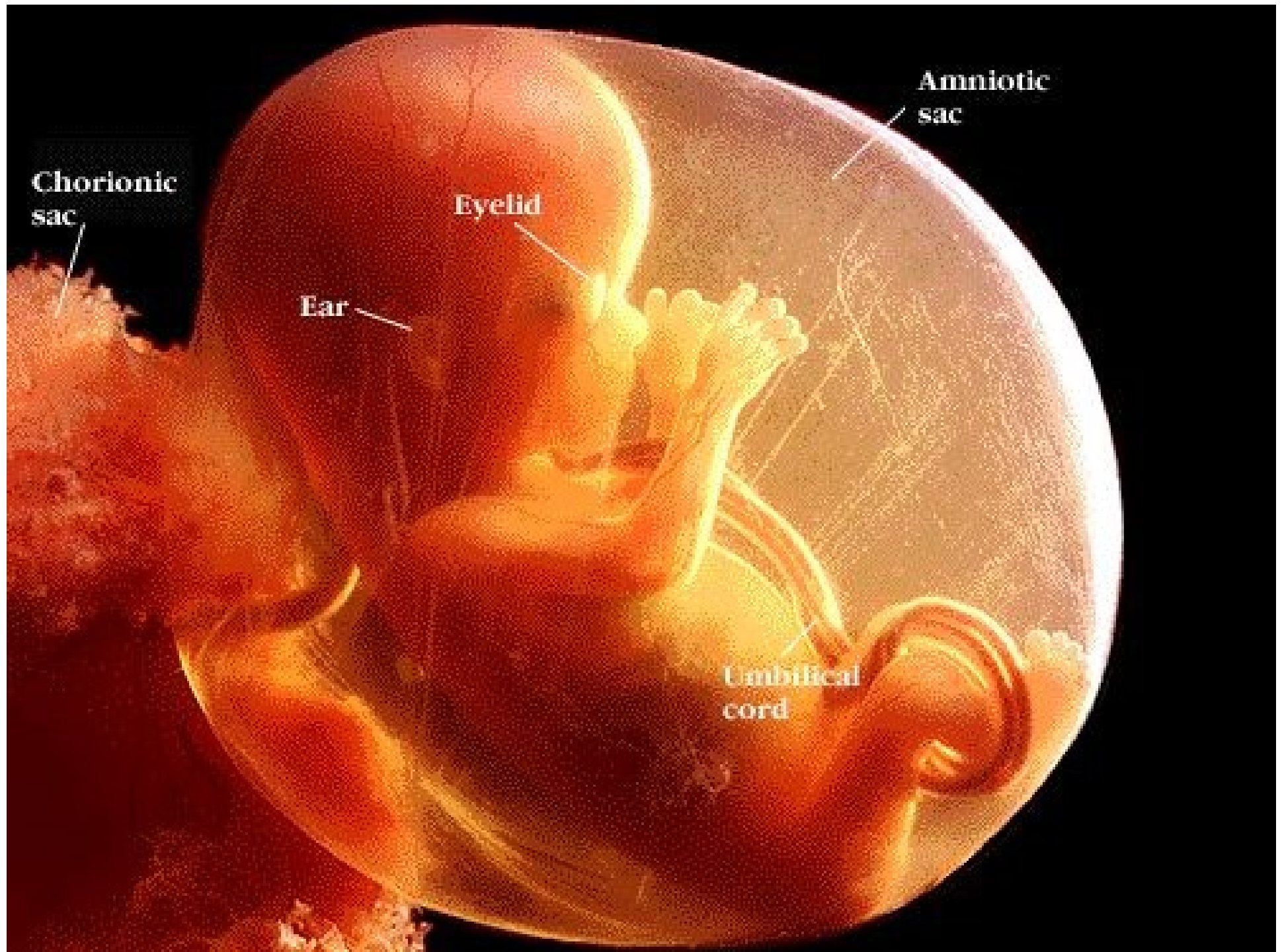
- Rapid weight gain
- Eyelids fuse
- Urine passed at 10 week
- Swallowing begins
- External genitalia present but gender not distinguishable
- Fingernails develop
- Some primitive reflexes present



## 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**.

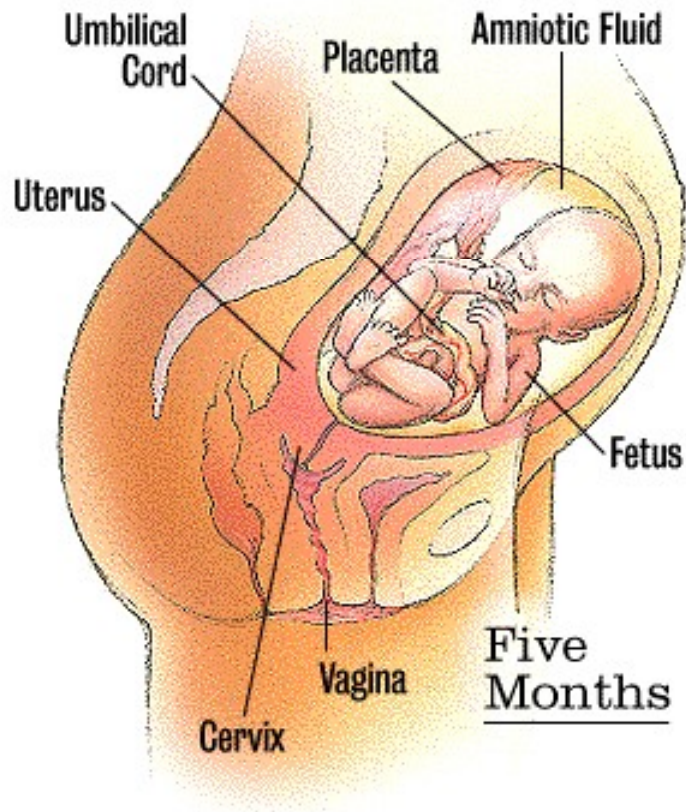


## 12-16 WEEKS

- Rapid skeletal movement
- Meconium present in gut
- Nasal septum and palate fuse
- Gender distinguishable
- Lanugo appears



## 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.



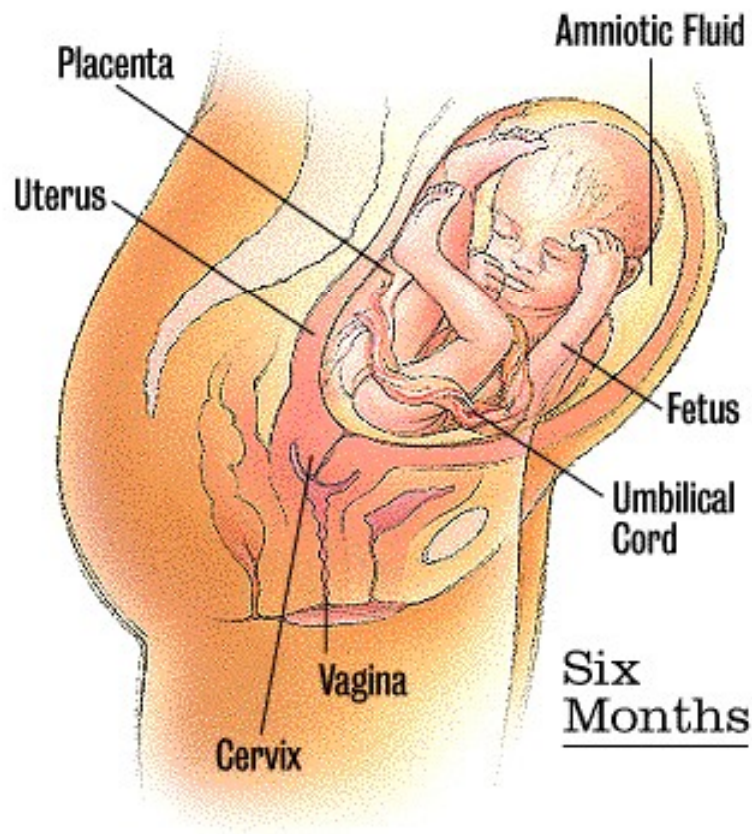
## 16-20 WEEKS

- Constant weight gain
- **Quickening** -mother feels the fetal movement
- Fetal heart sound on auscultation
- Vernix caseosa appears
- Skin cells begin to be renewed



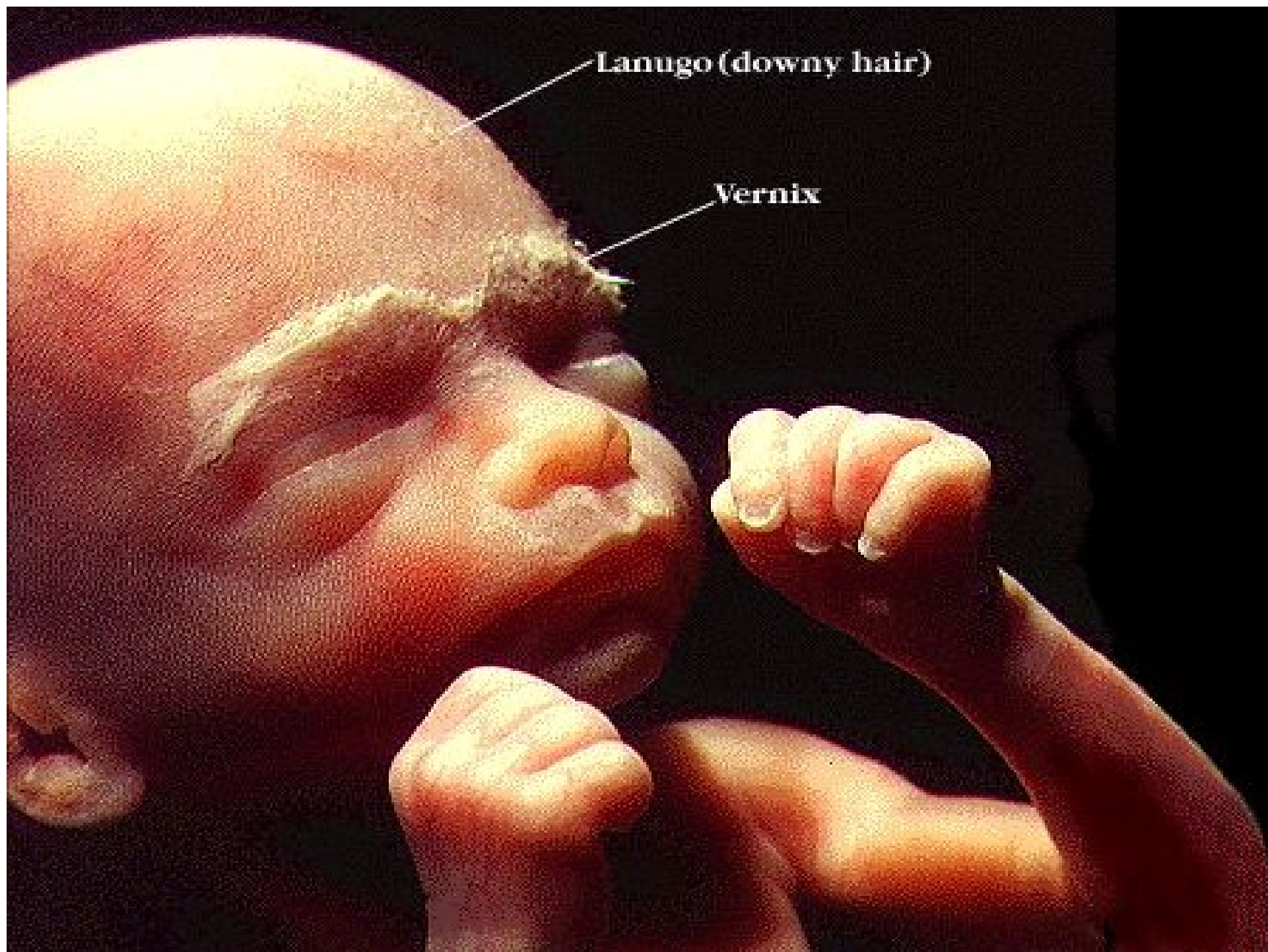


## SIX MONTHS



- **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.





Lanugo (downy hair)

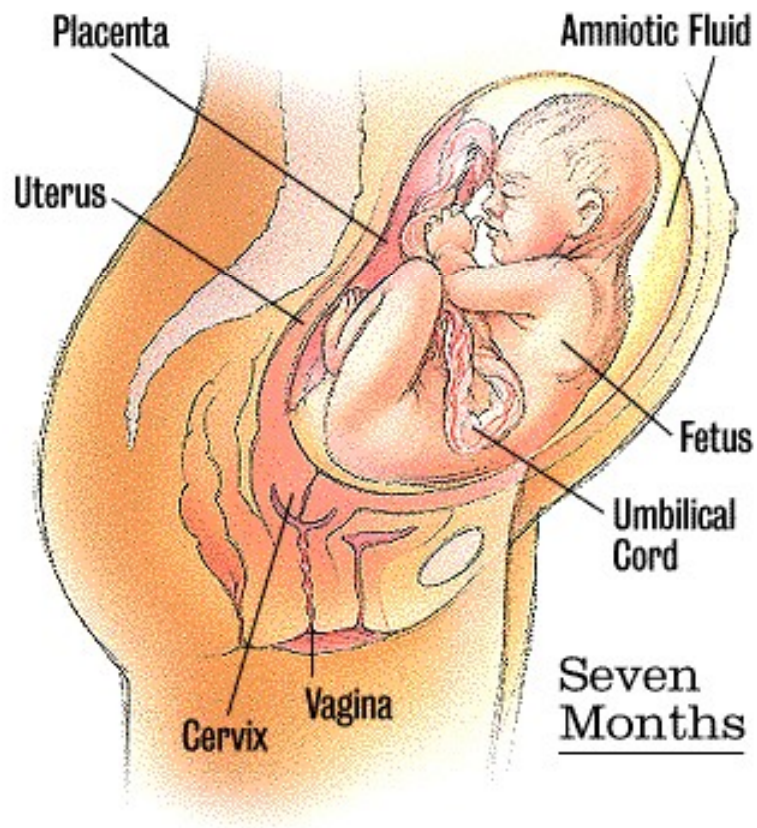
Vernix

## 20-24 WEEKS

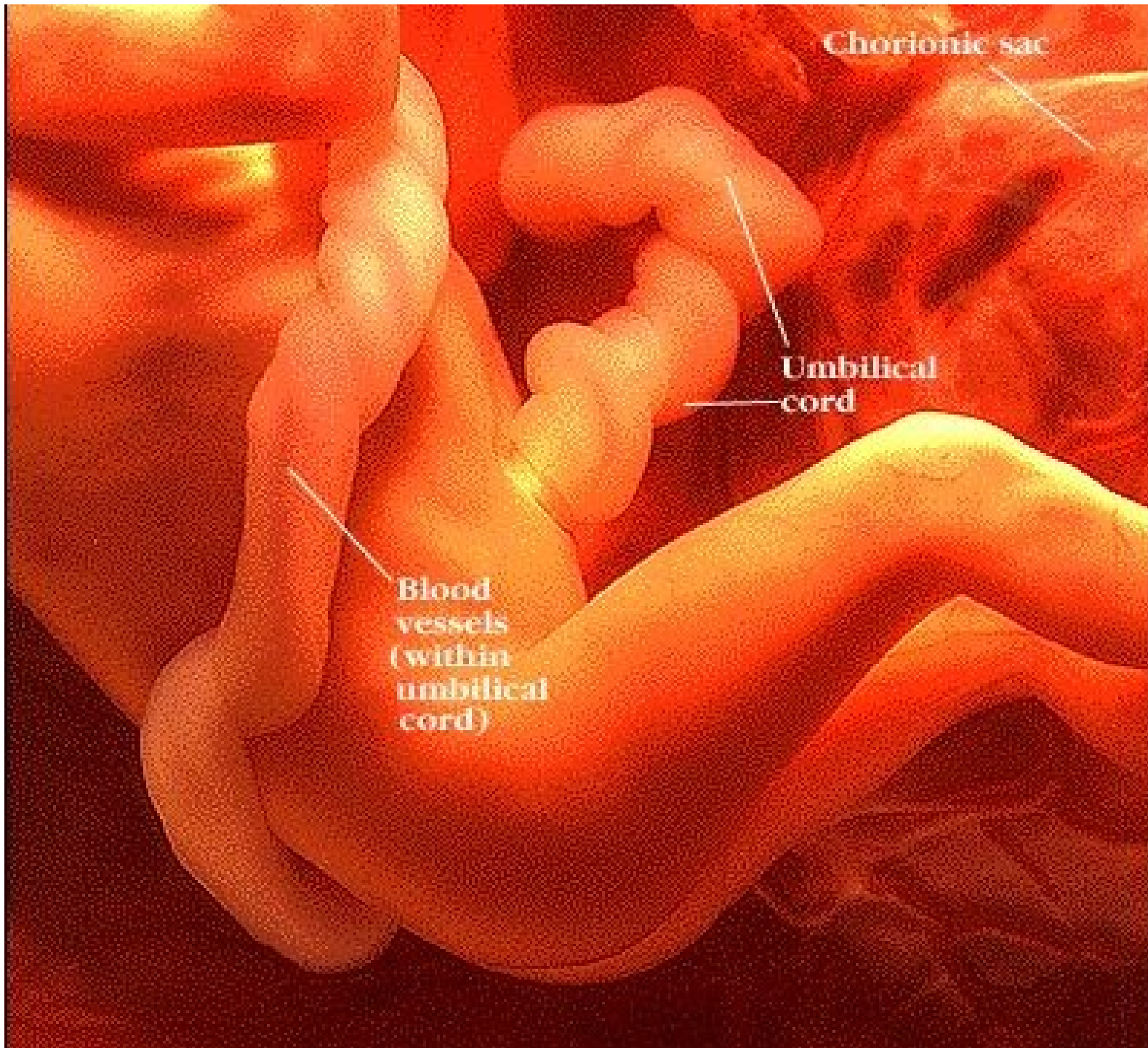
- Most organs functioning well
- Eyes complete
- Periods of sleep and activity
- Ear apparatus developing
- Responds to sound
- Skin red and wrinkled



## SEVEN MONTHS



- By the end of the seventh month, your baby weighs about **3 1/2 pounds** and is about **12 inches long**. His body is well-formed. **Fingernails** cover his fingertips



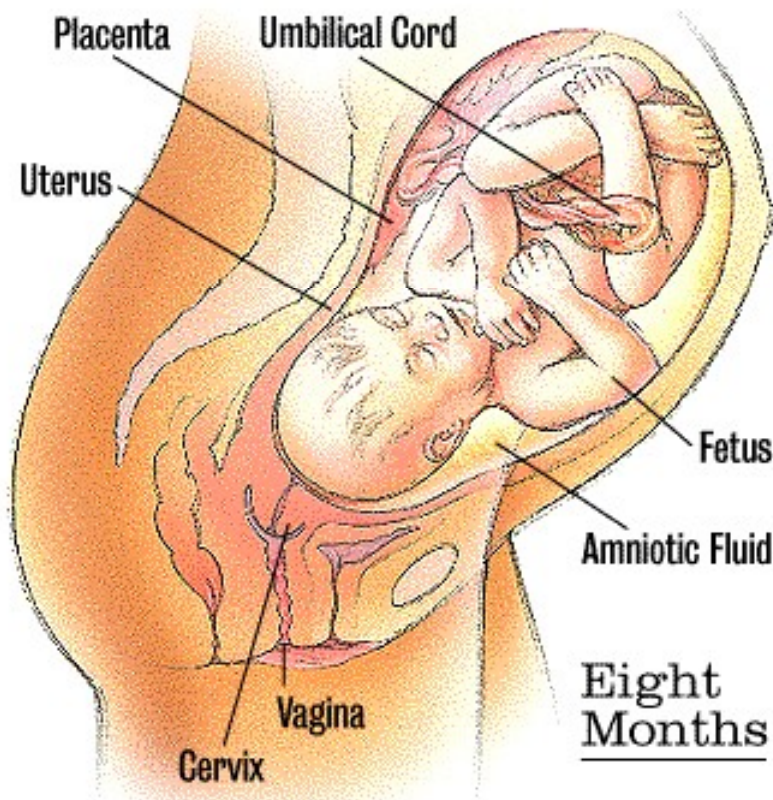
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## 24-28 WEEKS

- Legally viable and survival may be expected if born
- Eyelids open
- Respiratory movements



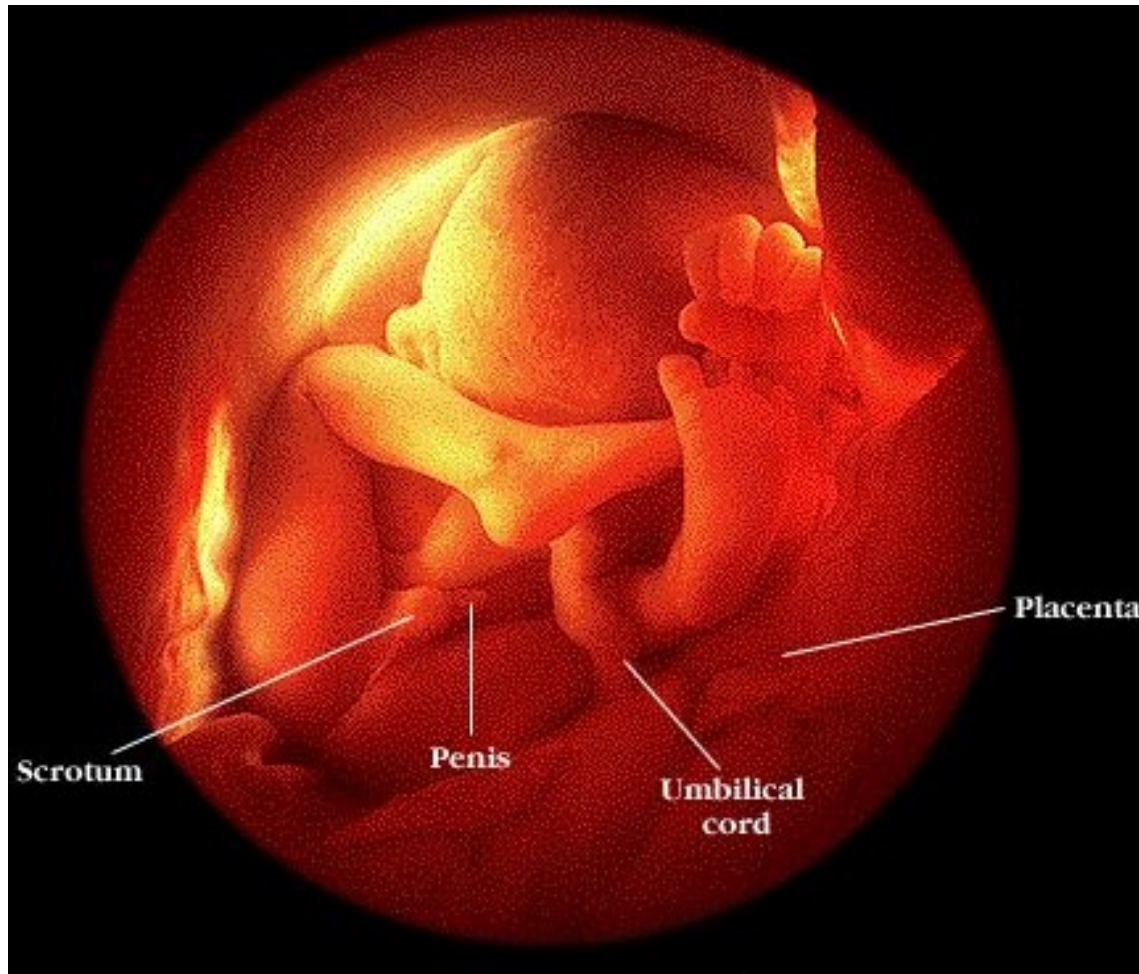
## EIGHT MONTHS



- 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



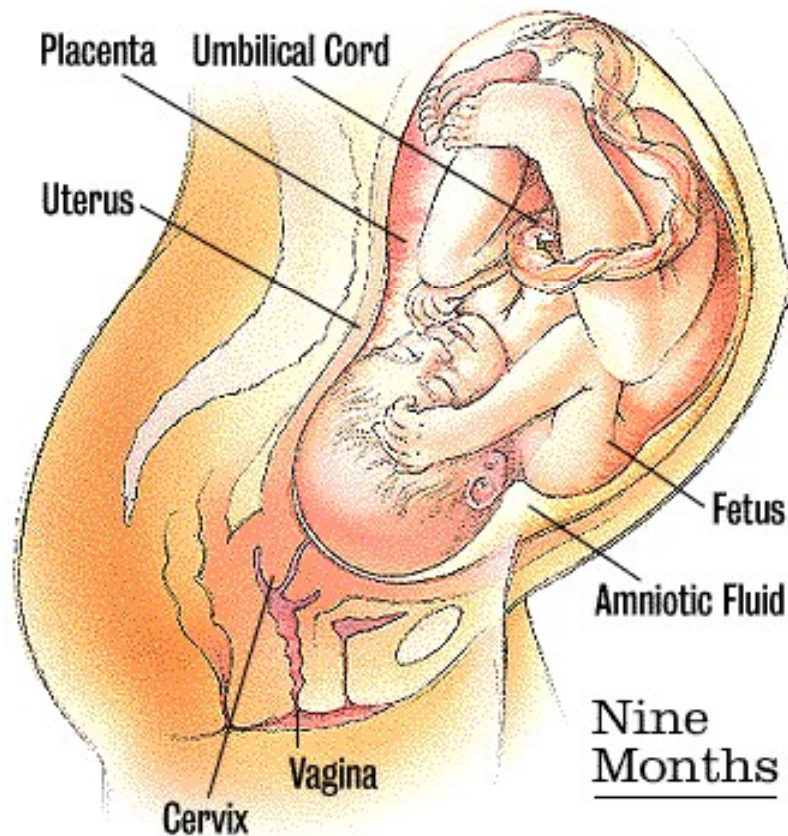
## 28 -32 WEEKS

- Begins to store fat and iron
- Testes descend into scrotum
- Lanugo disappears from face
- Skin becomes paler and less wrinkled





## 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.



## 32-36 WEEKS

- Lanugo disappears
- Head hair lengthens
- Nails reach tips of fingers
- Ear cartilage soft
- Plantar creases visible





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