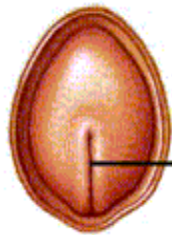


## Dorsal views



A Day 16

Primitive  
streak

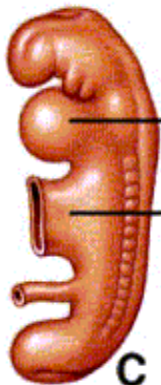


B Day 21

Neural  
groove

## Early embryos

## Lateral views

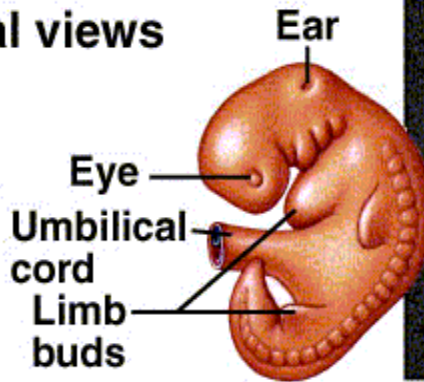


C Day 24

(2.5–3.8 mm)

Heart

Umbilical  
cord



D Day 28

(4.5–6.0 mm)

Ear

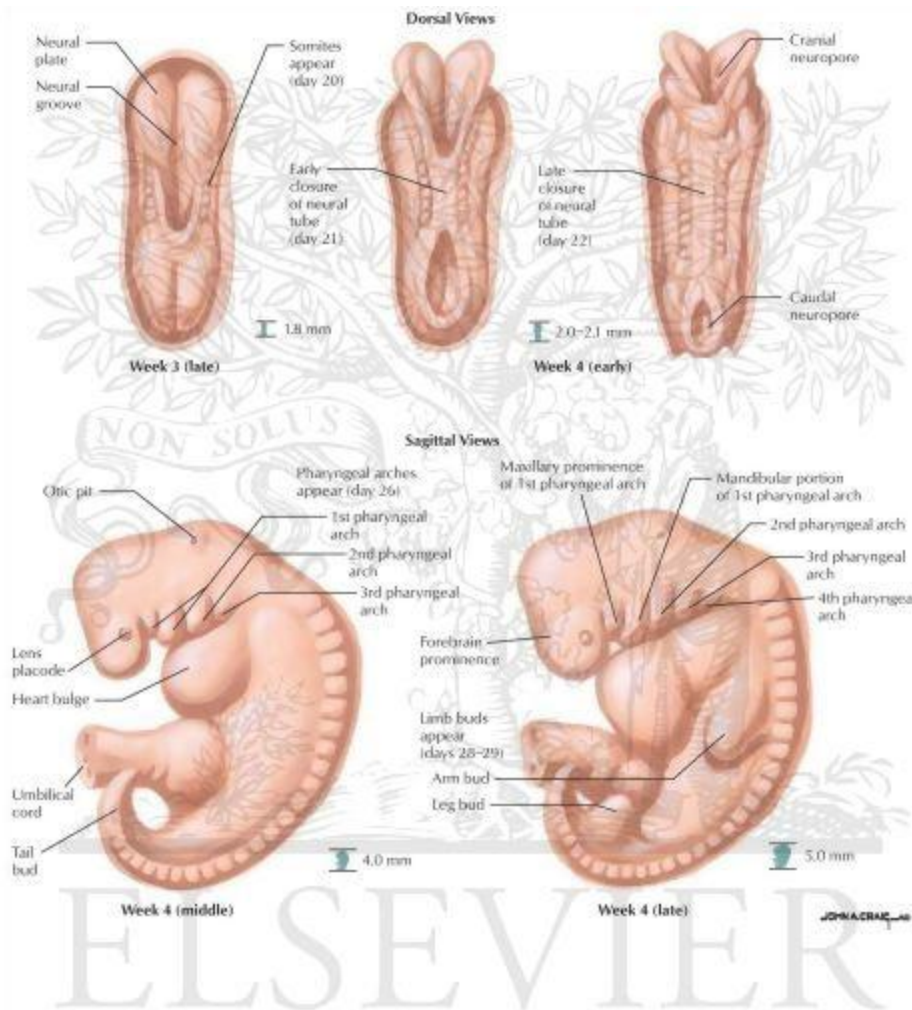
Eye

Umbilical  
cord

Limb  
buds



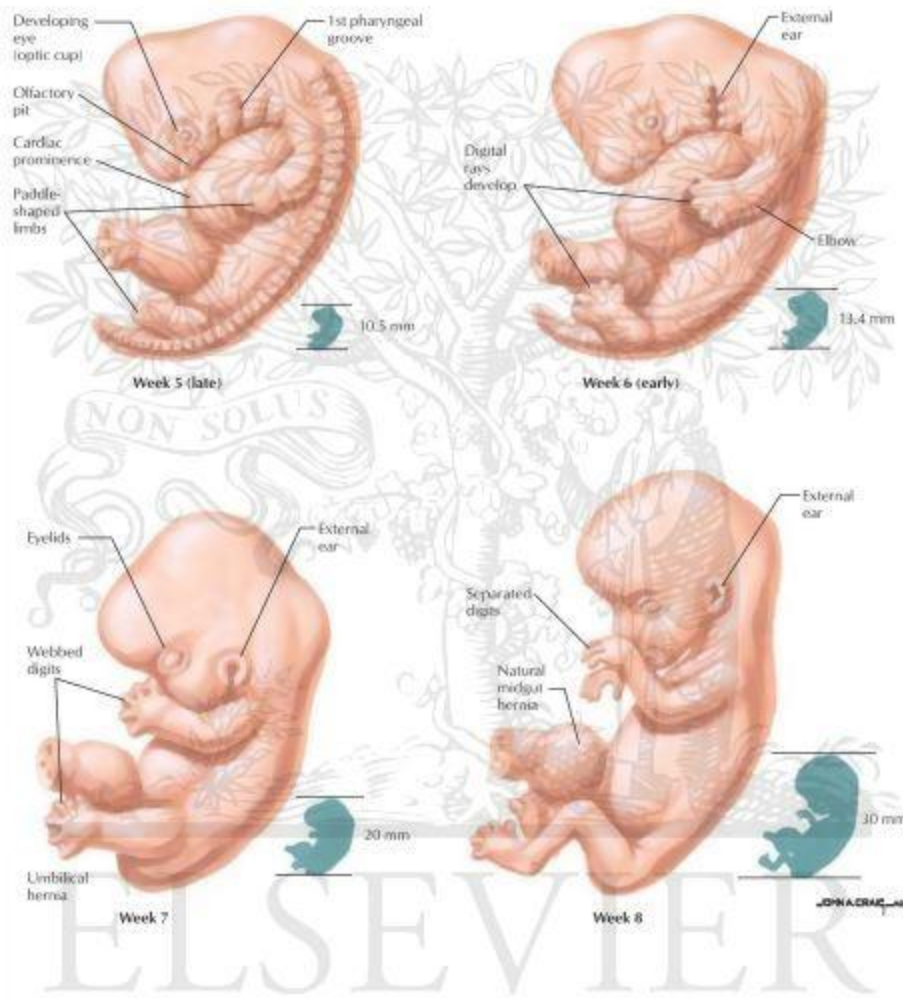
E



### Label Key:

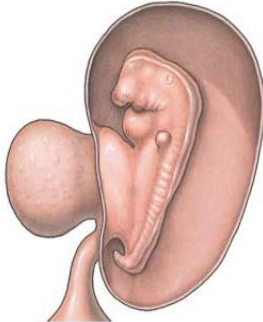
- 1. 1st pharyngeal arch (maxillary process)
- 2. midbrain بروز فك علوي
- 3. 1st pharyngeal arch (mandibular process) بروز الفك السفلي
- 4. placental vessel وعاء المشيمة
- 5. forebrain دماغ امامي
- 6. chest wall جدار الصدر
- 7. area of future mouth (stomodeum) منطقة الفم
- 8. heart القلب
- 9. 2nd pharyngeal arch قوس بلعومية ثمانية







3.5 weeks



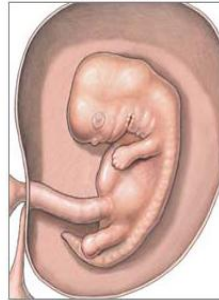
**Day 1:** fertilization: all human chromosomes are present; unique human life begins.

**Day 6:** embryo begins implantation in the uterus.

**Day 22:** heart begins to beat with the child's own blood, often a different type than the mothers'.

**Week 3:** By the end of third week the child's backbone spinal column and nervous system are forming. The liver, kidneys and intestines begin to take shape.

7.5 weeks



**Week 4:** By the end of week four the child is ten thousand times larger than the fertilized egg.

**Week 5:** Eyes, legs, and hands begin to develop.

**Week 6:** Brain waves are detectable; mouth and lips are present; fingernails are forming.

**Week 7:** Eyelids, and toes form, nose distinct. The baby is kicking and swimming.

8.5 weeks



**Week 8:** Every organ is in place, bones begin to replace cartilage, and fingerprints begin to form. By the 8th week the baby can begin to hear.

10 weeks



**Weeks 9 and 10:** Teeth begin to form, fingernails develop. The baby can turn his head, and frown. The baby can hiccup.

**Weeks 10 and 11:** The baby can "breathe" amniotic fluid and urinate.

12 weeks



**Week 11:** the baby can grasp objects placed in its hand; all organ systems are functioning. The baby has a skeletal structure, nerves, and circulation.

**Week 12:** The baby has all of the parts necessary to experience pain, including nerves, spinal cord, and thalamus. Vocal cords are complete. The baby can suck its thumb.

16 weeks



**Week 14:** At this age, the heart pumps several quarts of blood through the body every day.

**Week 15:** The baby has an adult's taste buds.

**Month 4:** Bone Marrow is now beginning to form. The heart is pumping 25 quarts of blood a day. By the end of month 4 the baby will be 8-10 inches in length and will weigh up to half a pound.

24 weeks



**Week 17:** The baby can have dream (REM) sleep.

**Week 19:** Babies can routinely be saved at 21 to 22 weeks after fertilization, and sometimes they can be saved even younger.

**Week 20:** The earliest stage at which Partial birth abortions are performed. At 20 weeks the baby recognizes its' mothers voice.

28-26 weeks



**Months 5 and 6:** The baby practices breathing by inhaling amniotic fluid into its developing lungs. The baby will grasp at the umbilical cord when it feels it. Most mothers feel an increase in movement, kicking, and hiccups from the baby. Oil and sweat glands are now functioning. The baby is now twelve inches long or more, and weighs up to one and a half pounds.

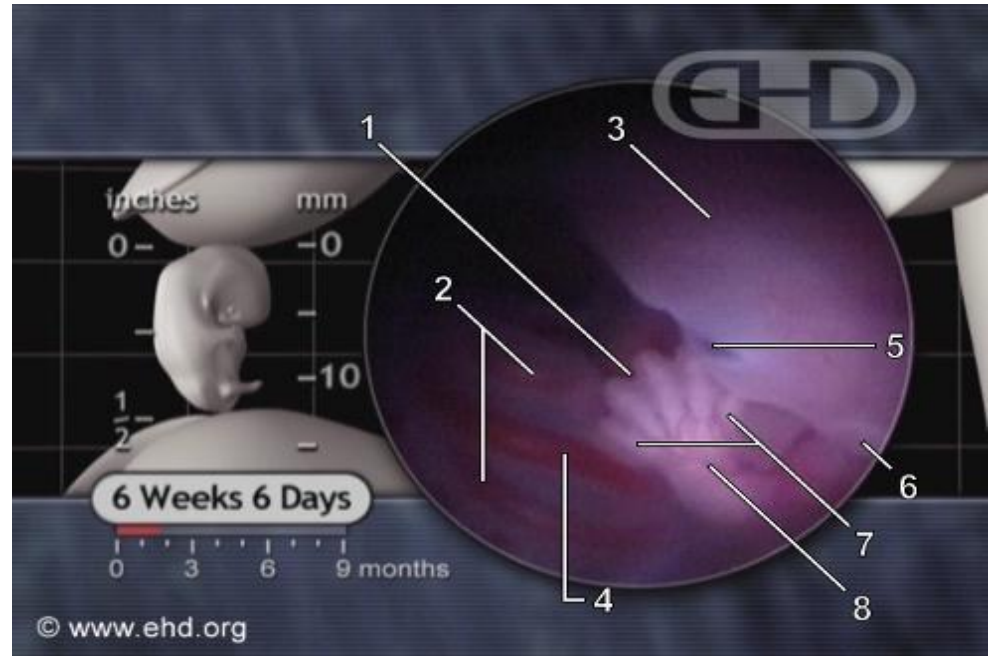
32-30 weeks



**Months 7 through 9:** Eyeteeth are present. The baby opens and closes his eyes. The baby is using four of the five senses (vision, hearing, taste, and touch.) He knows the difference between waking and sleeping, and can relate to the moods of the mother. The baby's skin begins to thicken, and a layer of fat is produced and stored beneath the skin. Antibodies are built up, and the baby's heart begins to pump 300 gallons of blood per day. Approximately one week before the birth the baby stops growing, and "drops" usually head down into the pelvic cavity.

### Label Key:

- 1. notching between digital rays  
أثلام بين الأشعة الأصبعية
- 2. umbilical arteries  
الشرايين السري
- 3. brain  
دماغ
- 4. umbilical vein  
الوريد السري
- 5. left eye  
العين اليسرى
- 6. external ear  
الأذن الخارجية
- 7. digital rays  
الأشعة الأصبعية
- 8. left wrist  
المعصم الأيسر



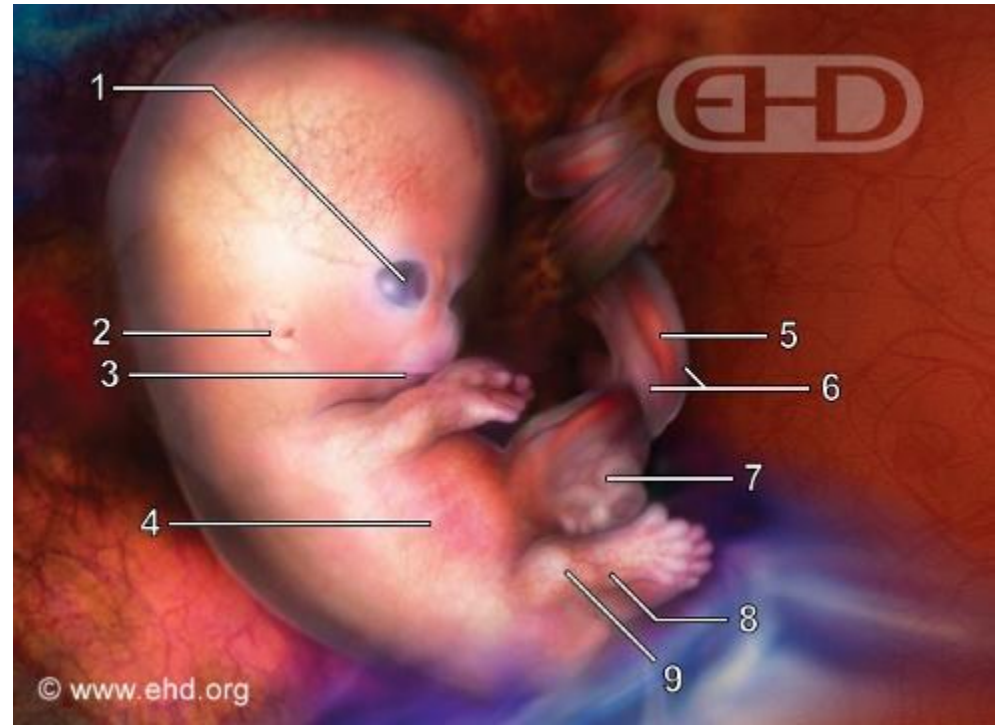


Seven week embryo



## 7½-Week Embryo

- 1. pigmentation within the retina of the right eye
- 2. external portion of right ear
- 3. mouth
- 4. outline of ribs
- 5. umbilical vein within umbilical cord
- 6. umbilical arteries
- 7. loops of bowel in base of umbilical cord (a normal event called physiologic herniation)
- 8. right ankle
- 9. right knee



1. تصبغ داخل شبكية العين اليمنى
2. الجزء الخارجي من الأذن اليمنى
3. فم
4. الخطوط العريضة للأضلاع
5. الوريد السري داخل الحبل السري
6. الشرايين السري
7. حلقات من الأمعاء في قاعدة الحبل السري (حدث طبيعي يسمى فتق فيزيولوجي)
8. الكاحل الأيمن
9. الركبة اليمنى

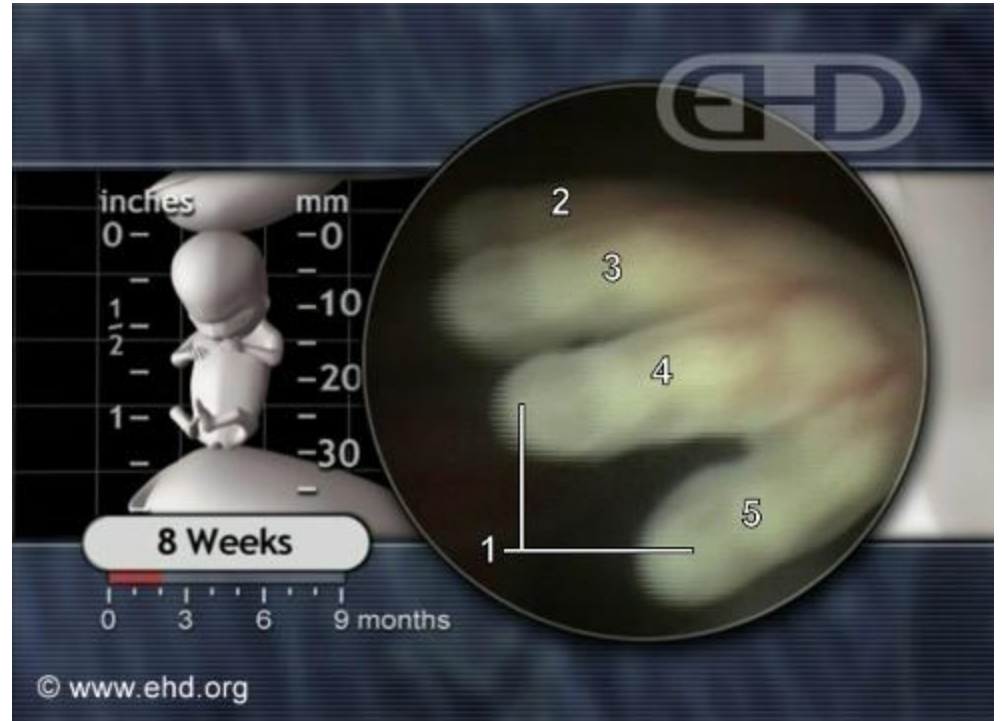
abel Key:

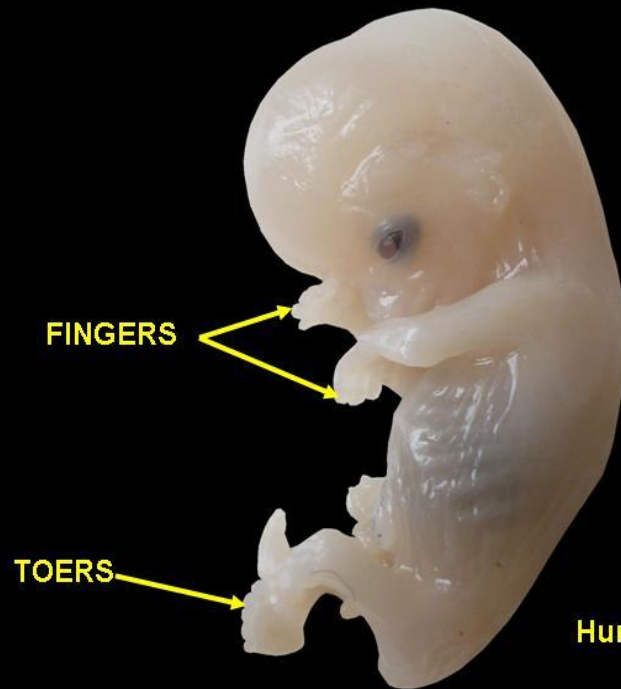
1. Forehead الجبين
2. upper eyelid الجفن العلوي
3. Nose أنف
4. Mouth فم
5. line of fusion of the upper and lower eyelids خط اندماج الجفن العلوي بالسفلي
6. lower eyelid الجفن السفلي



### Label Key:

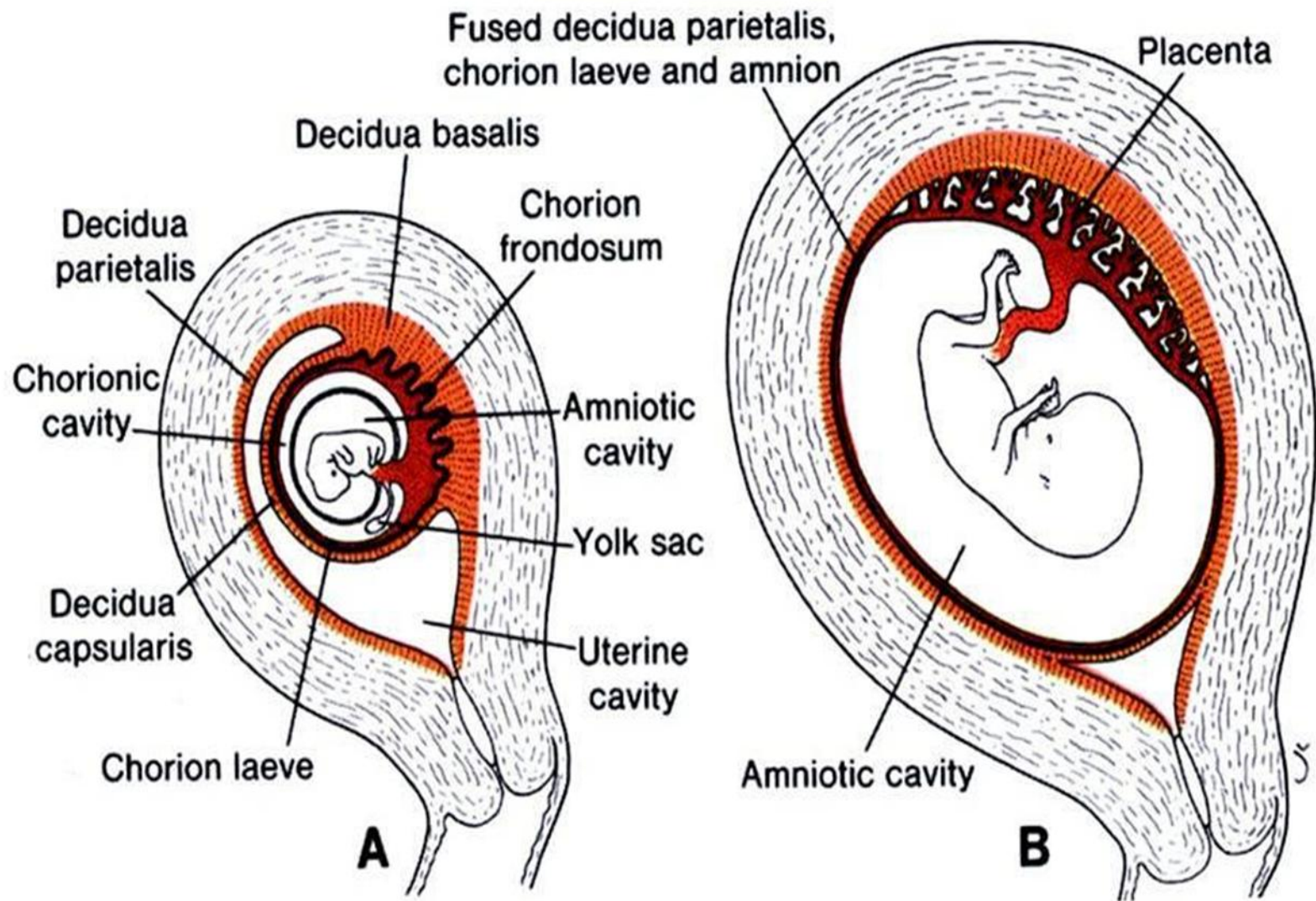
- 1. nail fields مناطق الأظافر
- 2. right ring finger بنصر
- 3. middle finger الاصبع الوسطى
- 4. index finger سبابة
- 5. thumb ابهام

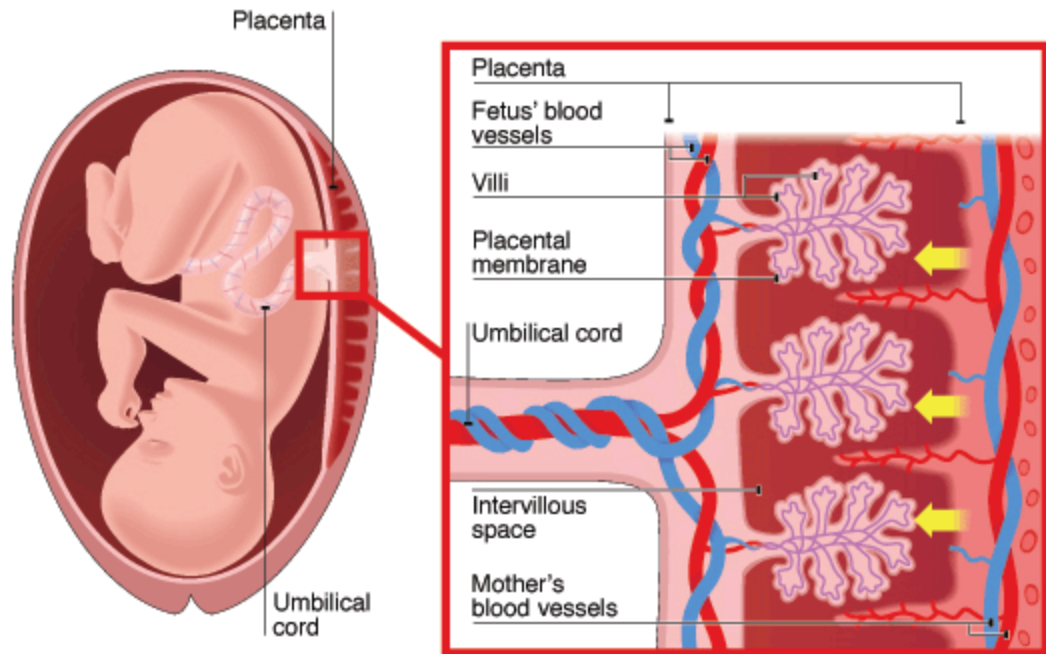
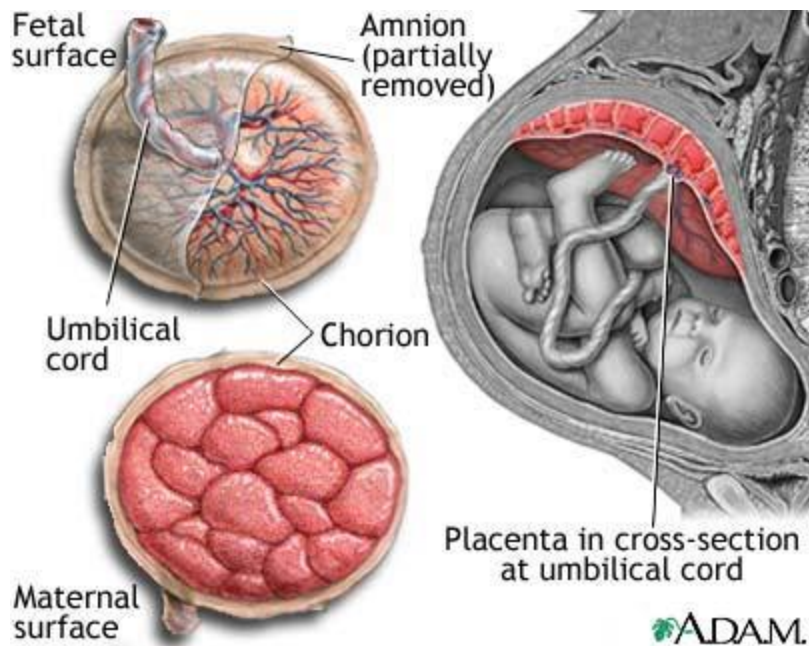


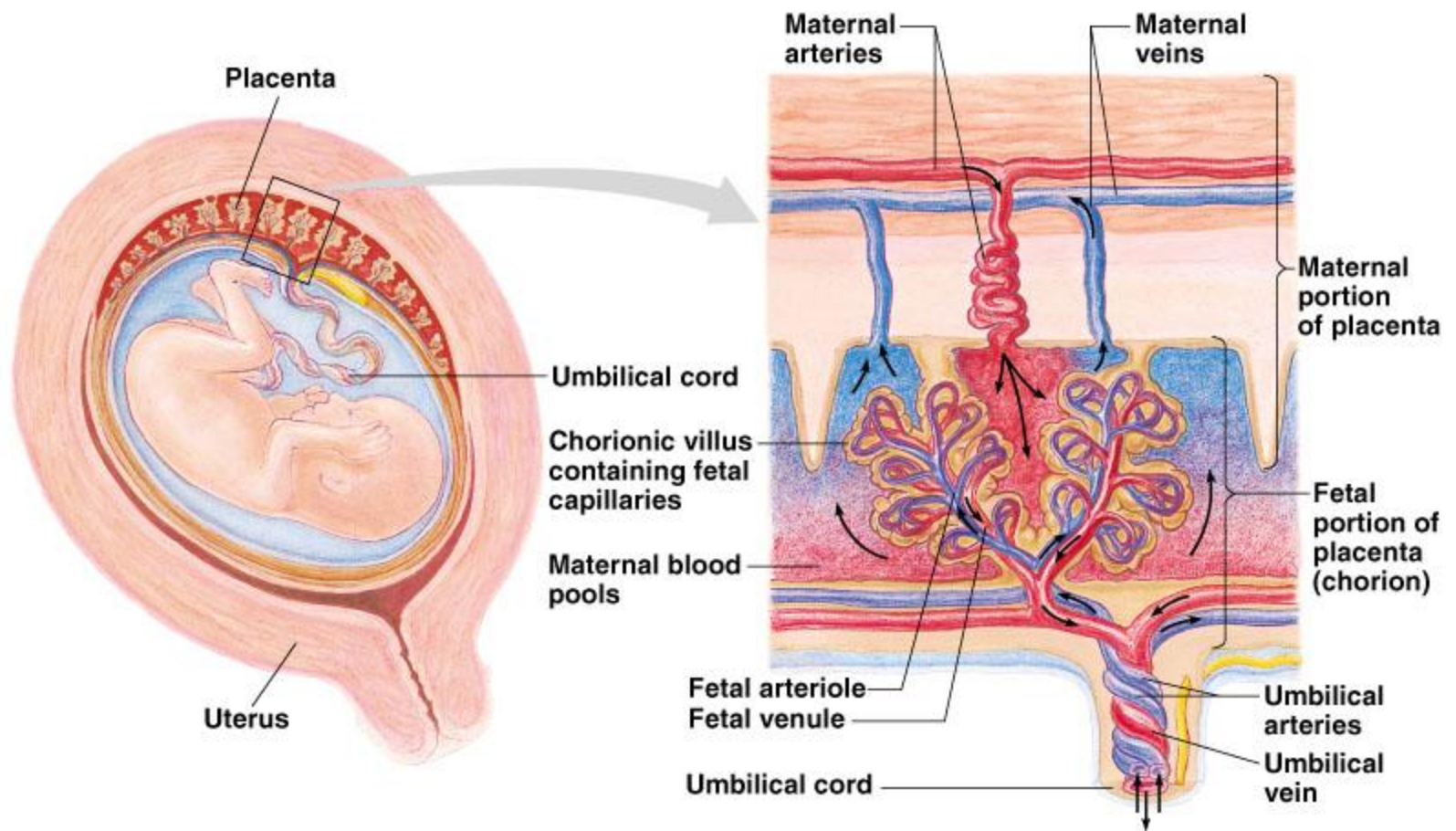


Human embryo, 38 mm, 8-9 weeks





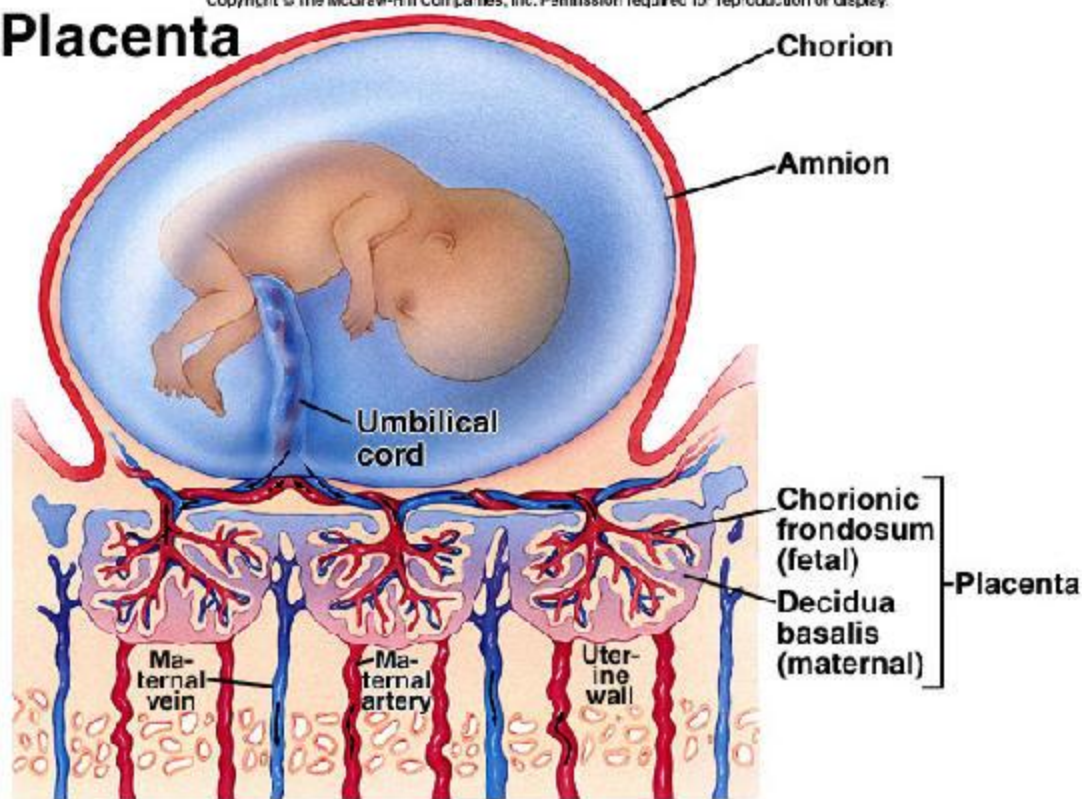




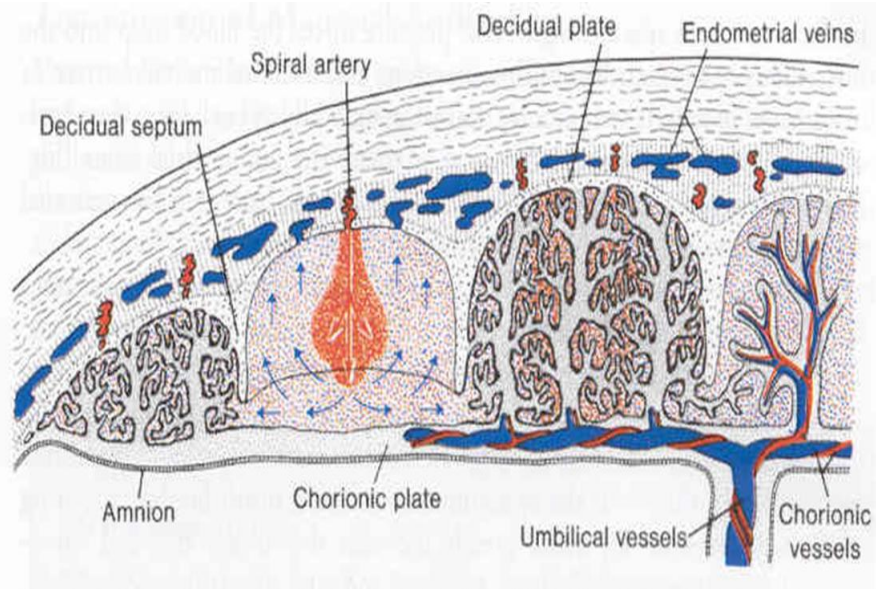


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# Placenta







Le placenta et les cotylédons.

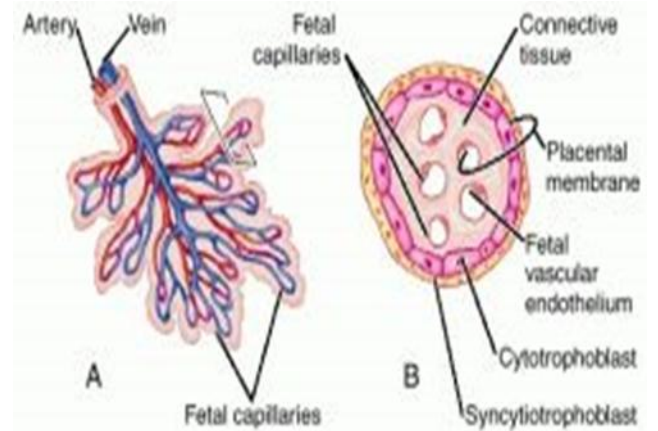
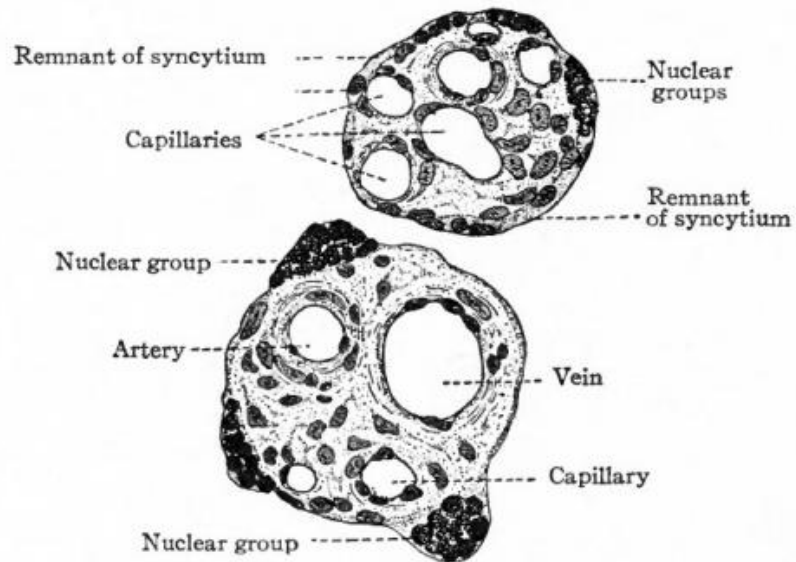
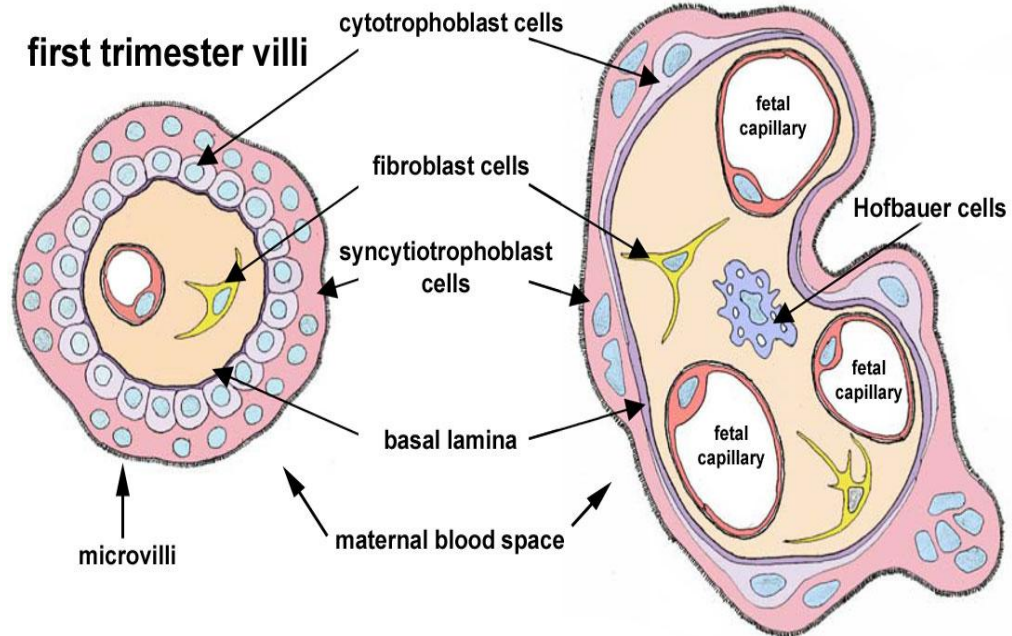
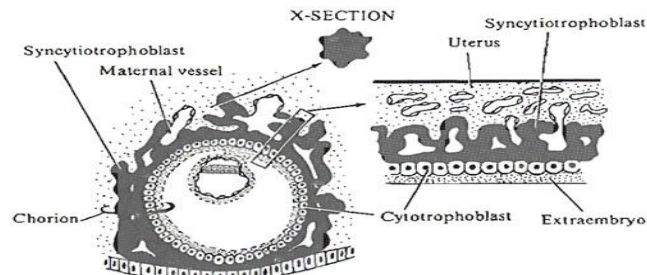


FIG. 499.—Transverse sections of chorionic villi at the end of pregnancy. *Schaper.*

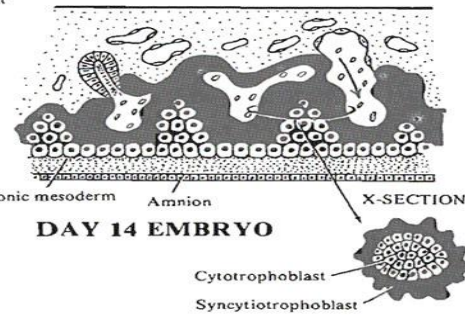
# Human floating chorionic villi

(cross-section)

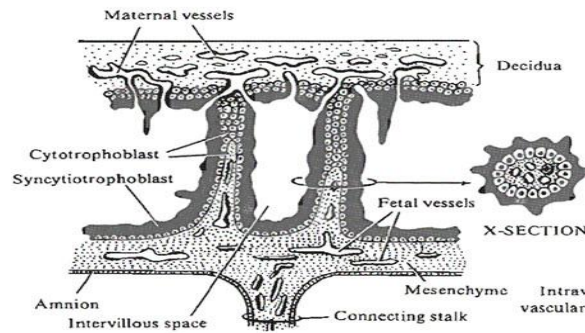




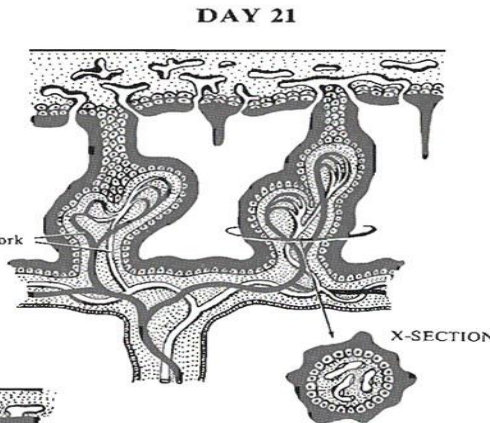
**DAY 13 EMBRYO**



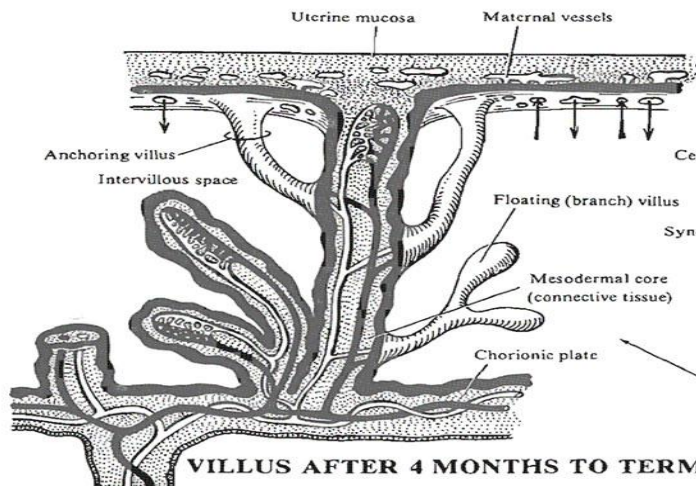
**DAY 14 EMBRYO**



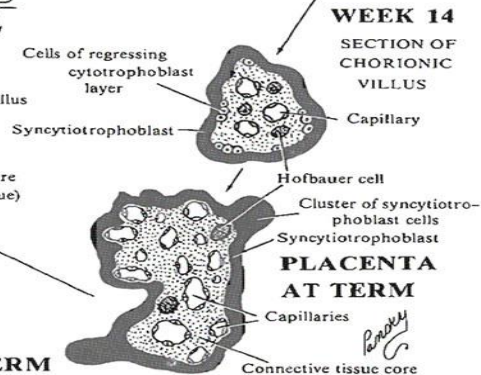
**DAY 18 EMBRYO**



**DAY 21**



**VILLUS AFTER 4 MONTHS TO TERM**



**WEEK 14**

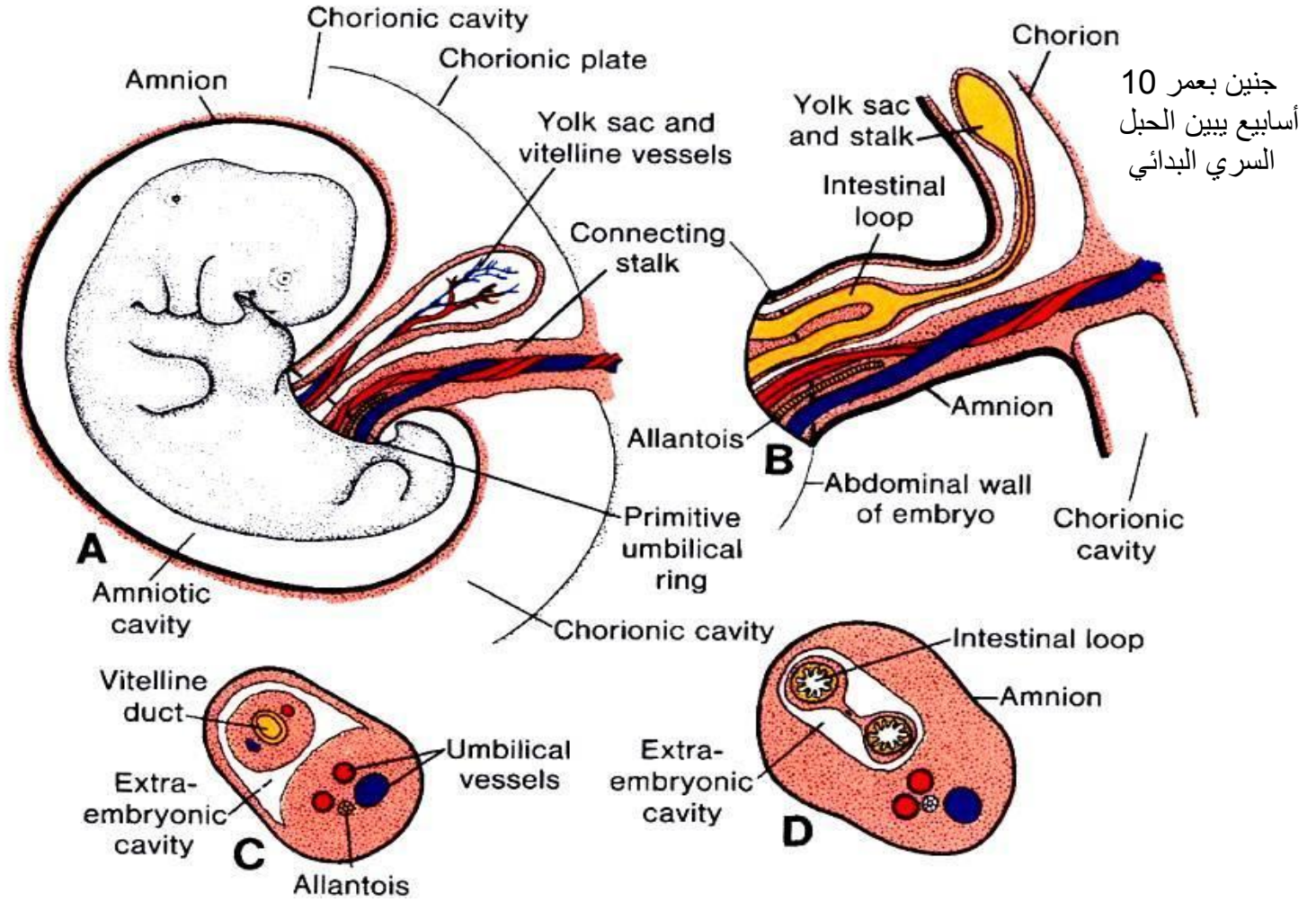
**SECTION OF CHORIONIC VILLUS**

**PLACENTA AT TERM**



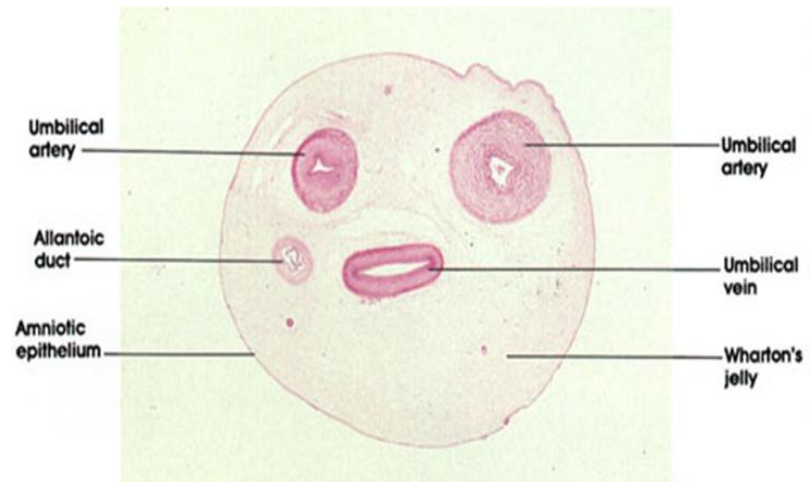
# السلوى والحبل السري

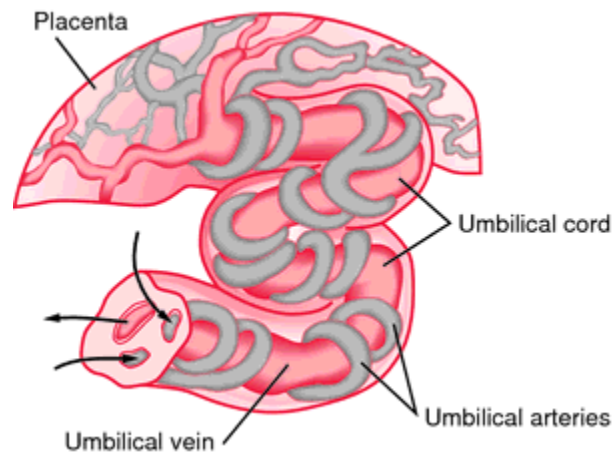
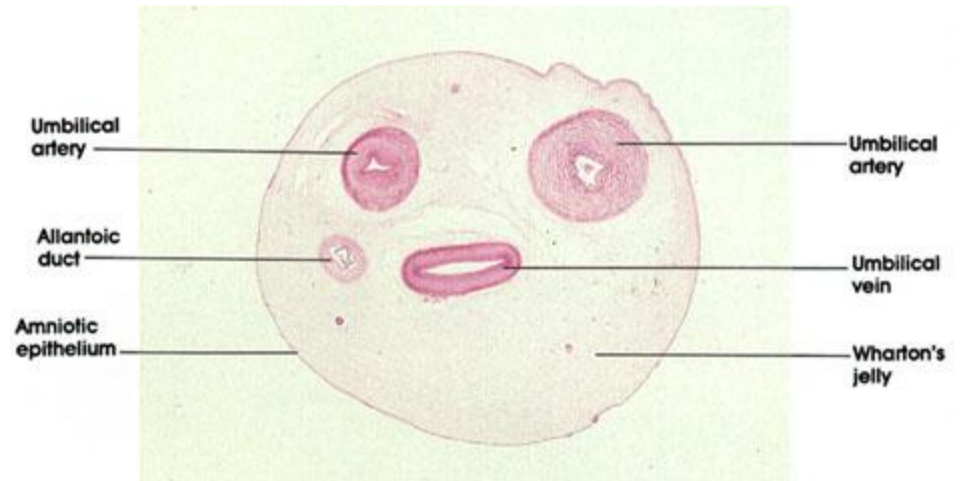
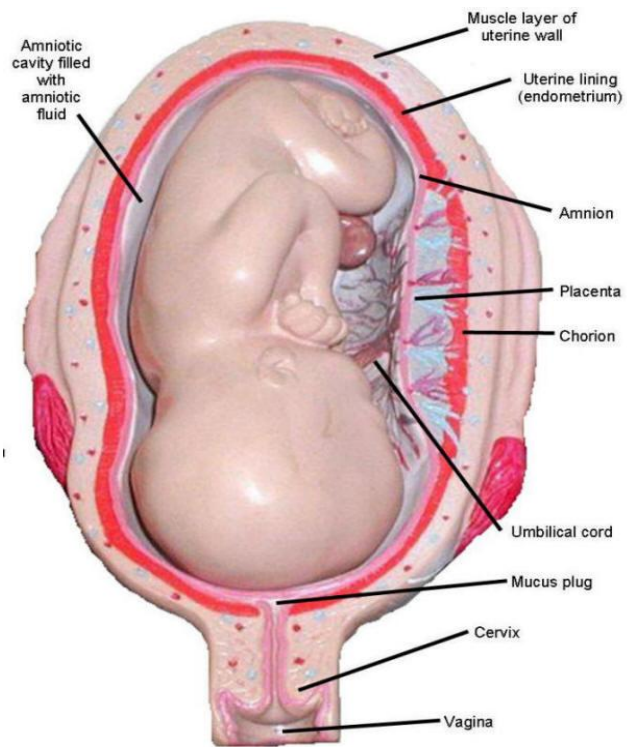
جنين في الاسبوع الخامس يظهر التراكيب التي تجتاز حلقة الحبل السري



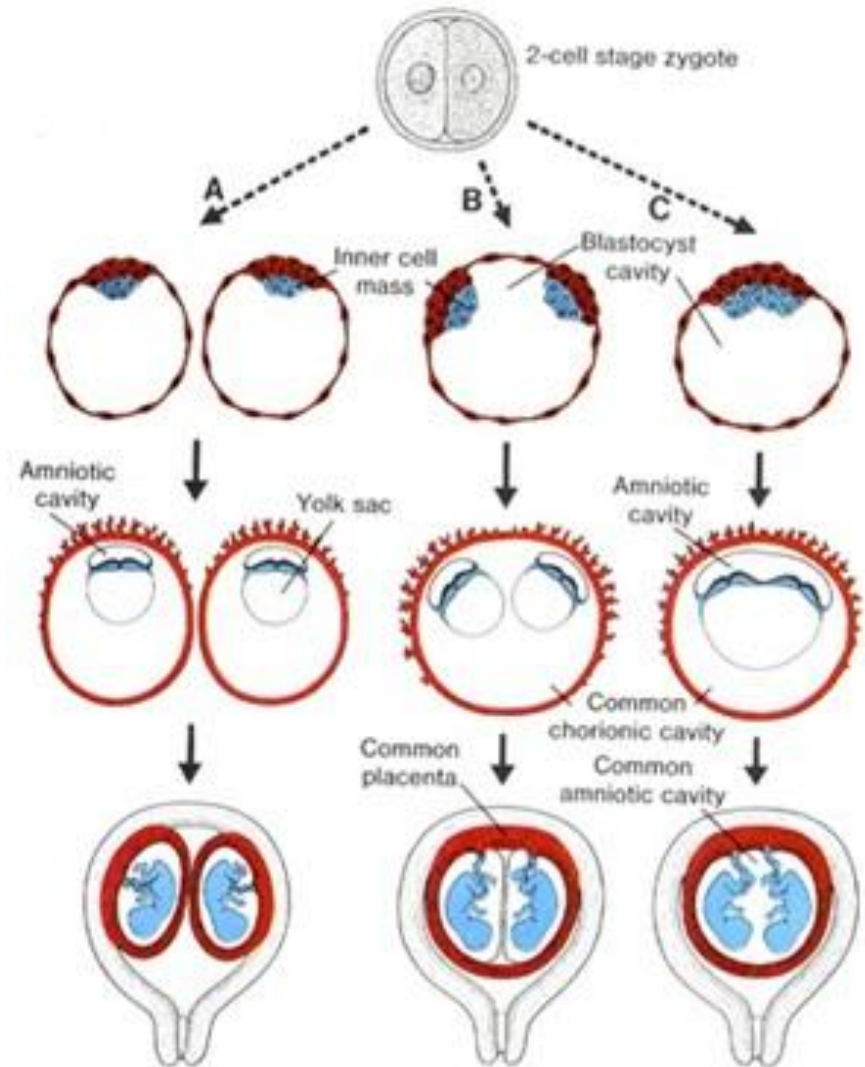
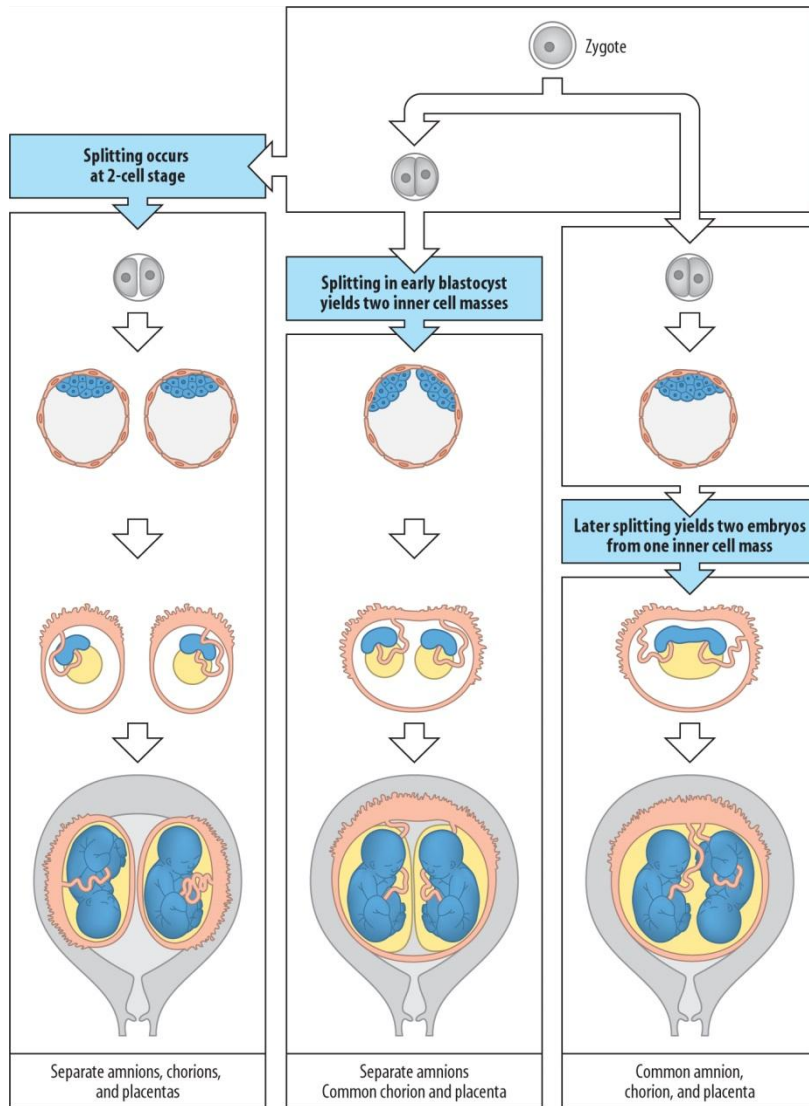
م. ع. عبر التراكيب على مستوى الحلقة السرية

م. ع. للحبل السري البدائي يبين العرى المعوية التي تدخل الحبل السري





# توائم احادية البيضة الملقحة





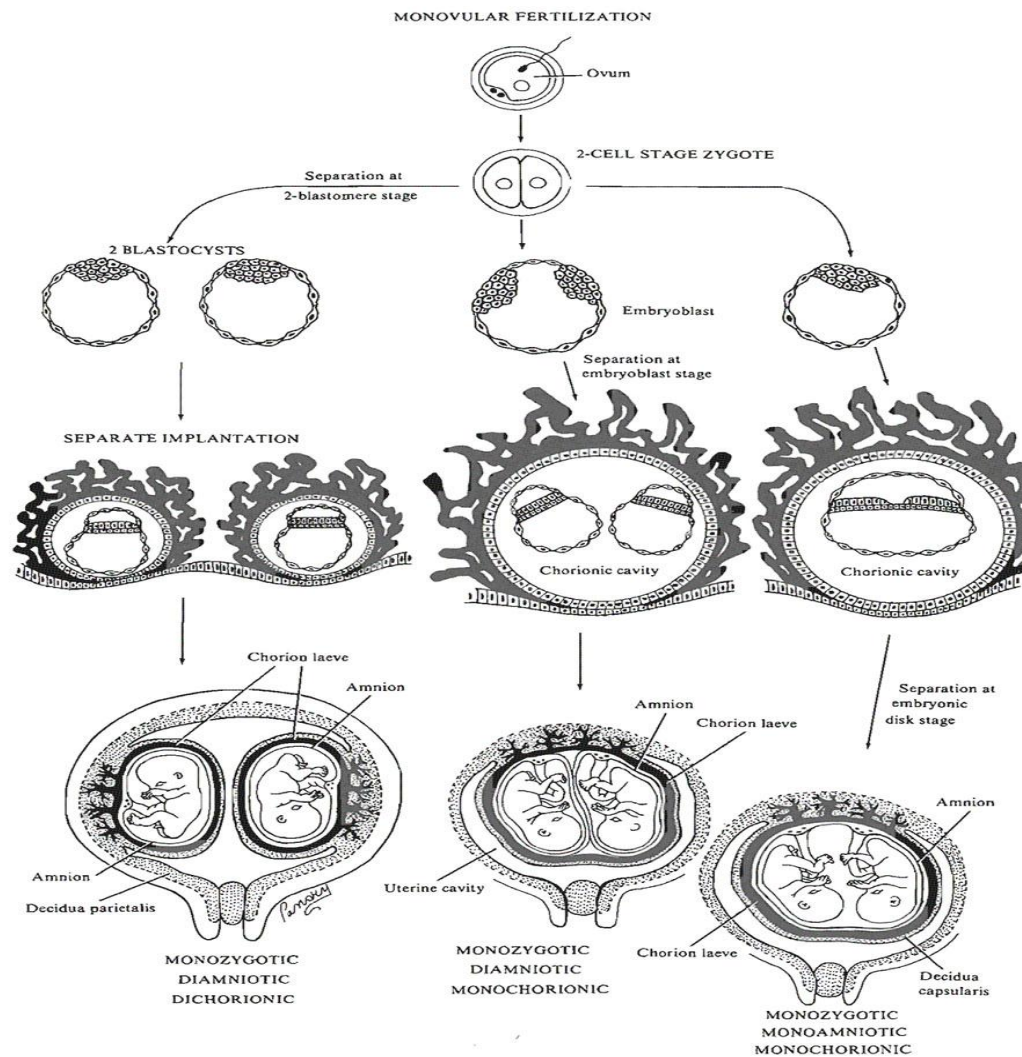
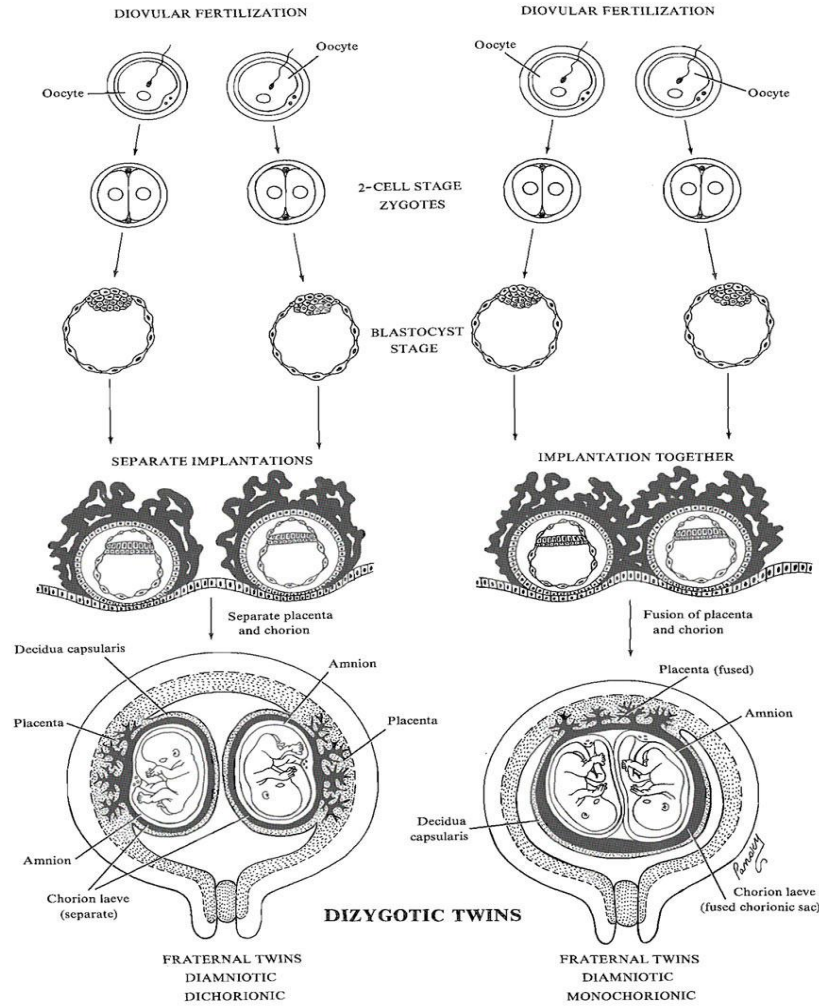
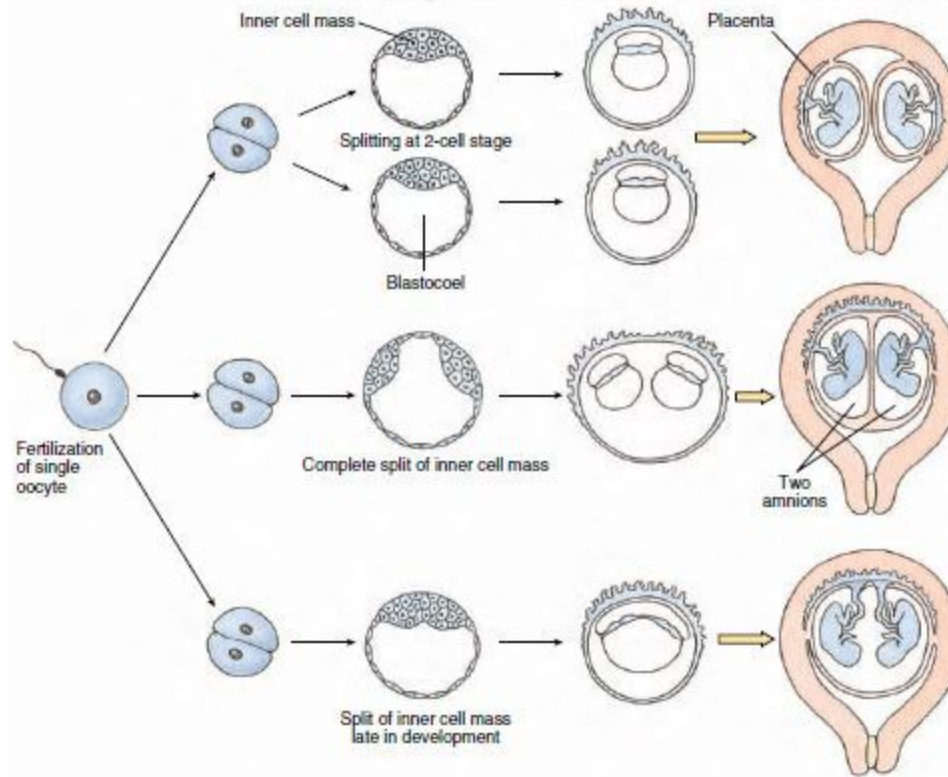


FIGURE 15. Monozygotic, genetically identical twin pregnancies.

# توائم ثنائية البويضة الملقحة

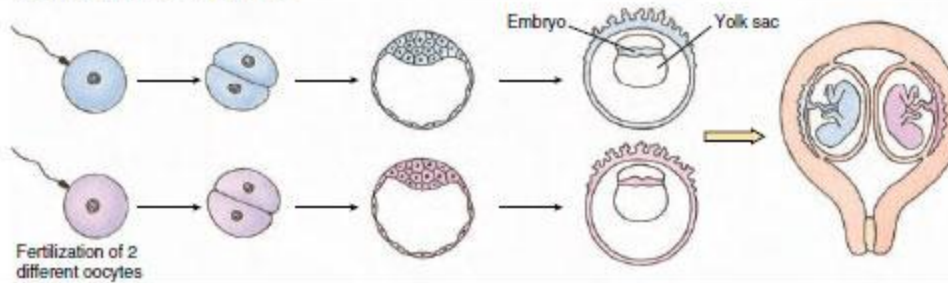


# MONOZYGOTIC (IDENTICAL) TWINS



A

# DIZYGOTIC (FRATERNAL) TWINS



B