



Mon, Feb 26, 2018

Pick up: content check

Today you will:

1. Content check-Male Anatomy
2. Fetal Development/Trimesters Notes
3. Vocab Practice

Homework/Planner:

Quiz on Reproductive System-Fetal Development Fri!

# Match the function with the correct organ

**D** 1. Cervix

**E** 2. Vagina

**C** 3. Uterus

**B** 4. Oviduct (Fallopian Tube)

**A** 5. Ovaries

A. Production of egg cells or ova

B. Transports egg to the uterus

C. Expands to hold the growing fetus

D. Lower end of the uterus

E. Tube-like organ connecting uterus to outside the body



# Match the function with the correct organ

**B** 1. Testicles

**A** 2. Scrotum

**D** 3. Epididymis

**E** 4. Vas Deferens

**F** 5. Seminal vesicle

**G** 6. Penis

**C** 7. Seminiferous  
tubules

**A.** Pouch containing testicles

**B.** Make testosterone & responsible for  
generating sperm

**C.** Tubes within testicles; Produce sperm  
cells

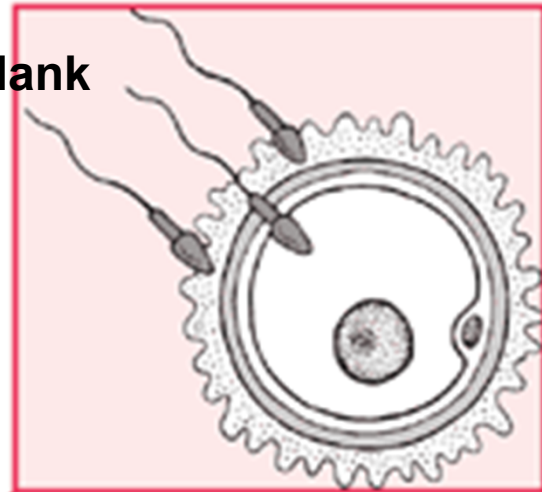
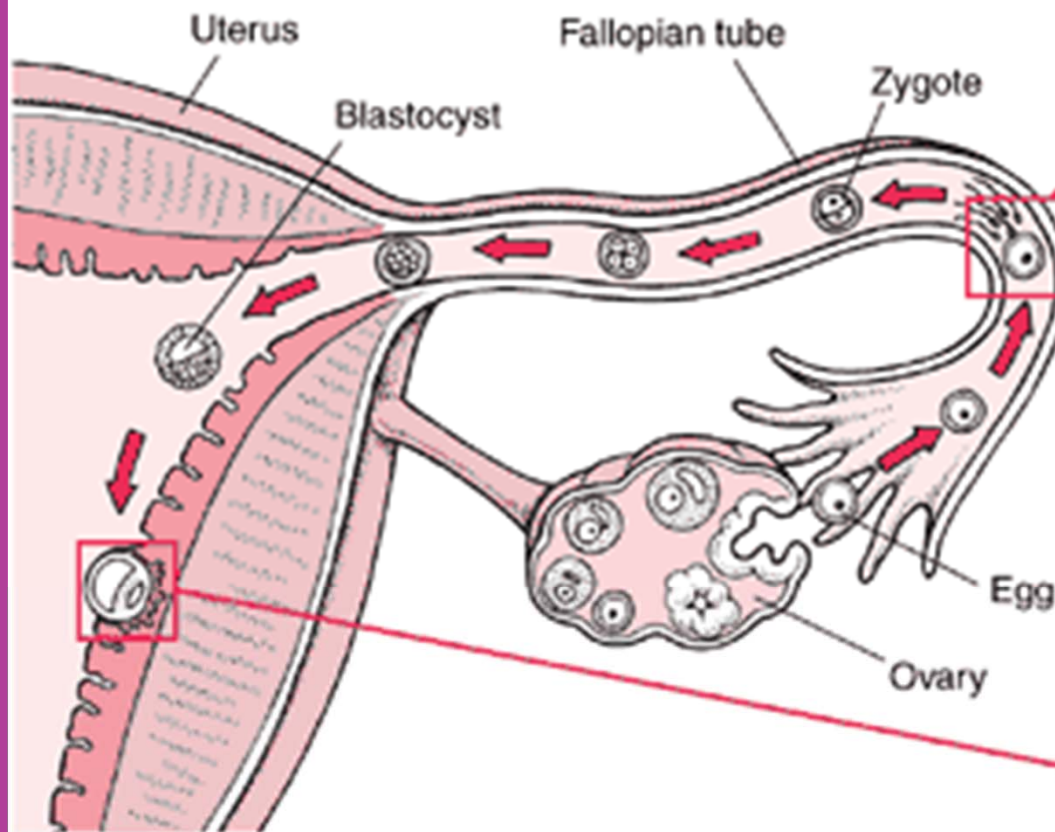
**D.** Long coiled tube on back of each  
testicles; transports & stores immature  
sperm cells

**E.** Long, muscular tube that transports  
mature sperm to the urethra

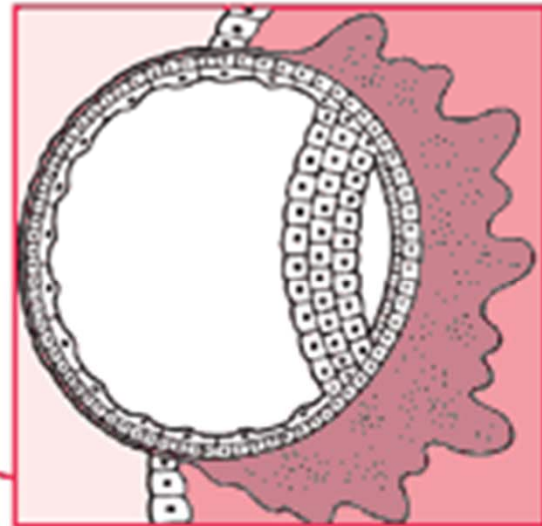
**F.** Sac-like pouches that produce a sugar-  
rich fluid that provides sperm with a  
source of energy

**G.** Transports sperm & urine

ISN pg 17 Use TB pg 798 to complete fill-in-the-blank



Fertilization

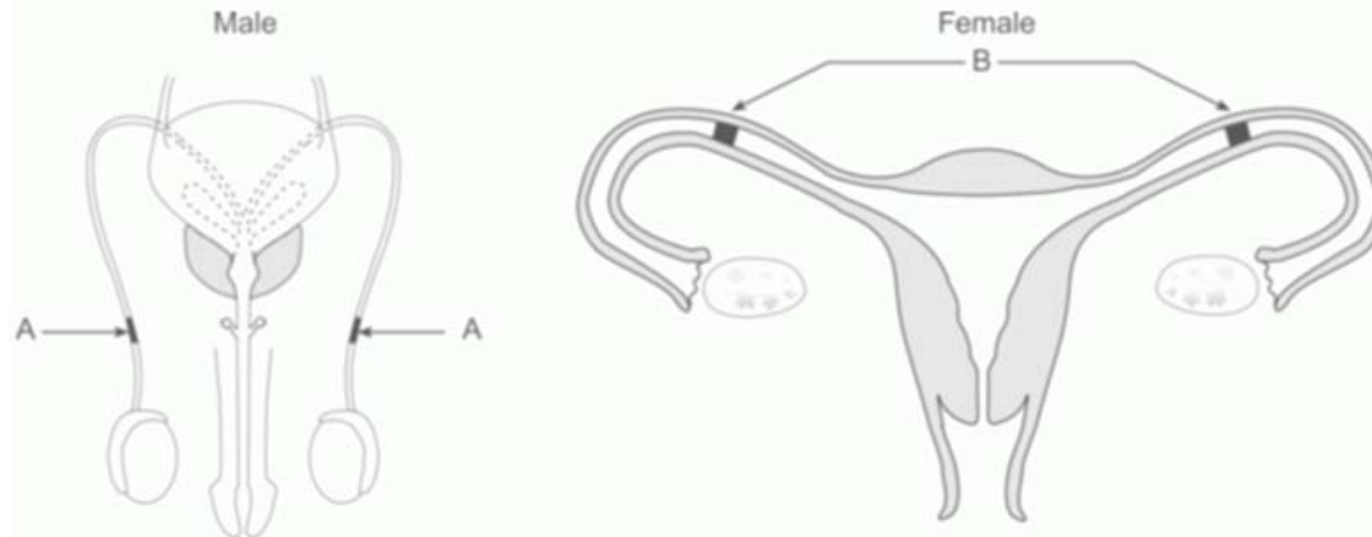


Implantation

# Daily Science Question

## *Male and Female Reproductive System*

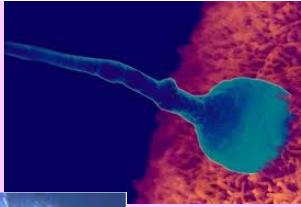
The diagrams below represent the reproductive systems in the human male and female.



The blockages shown at *A* and *B* would most likely interfere with the ability to

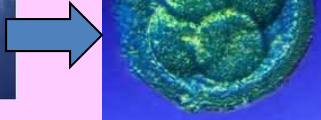
- a) transport gametes
- b) produce mature gametes
- c) eliminate waste products through the urethra
- d) express secondary sex characteristics

•Fertilization



COPY → ISN p.180

•Zygote



•Blastocyst.....



= Hollow ball of about 100 cells

•Gastrulation...



Means "gut-forming"

3 Layers

- 1.Ectoderm
- 2.Mesoderm
- 3.Endoderm

•Embryo



•Fetus

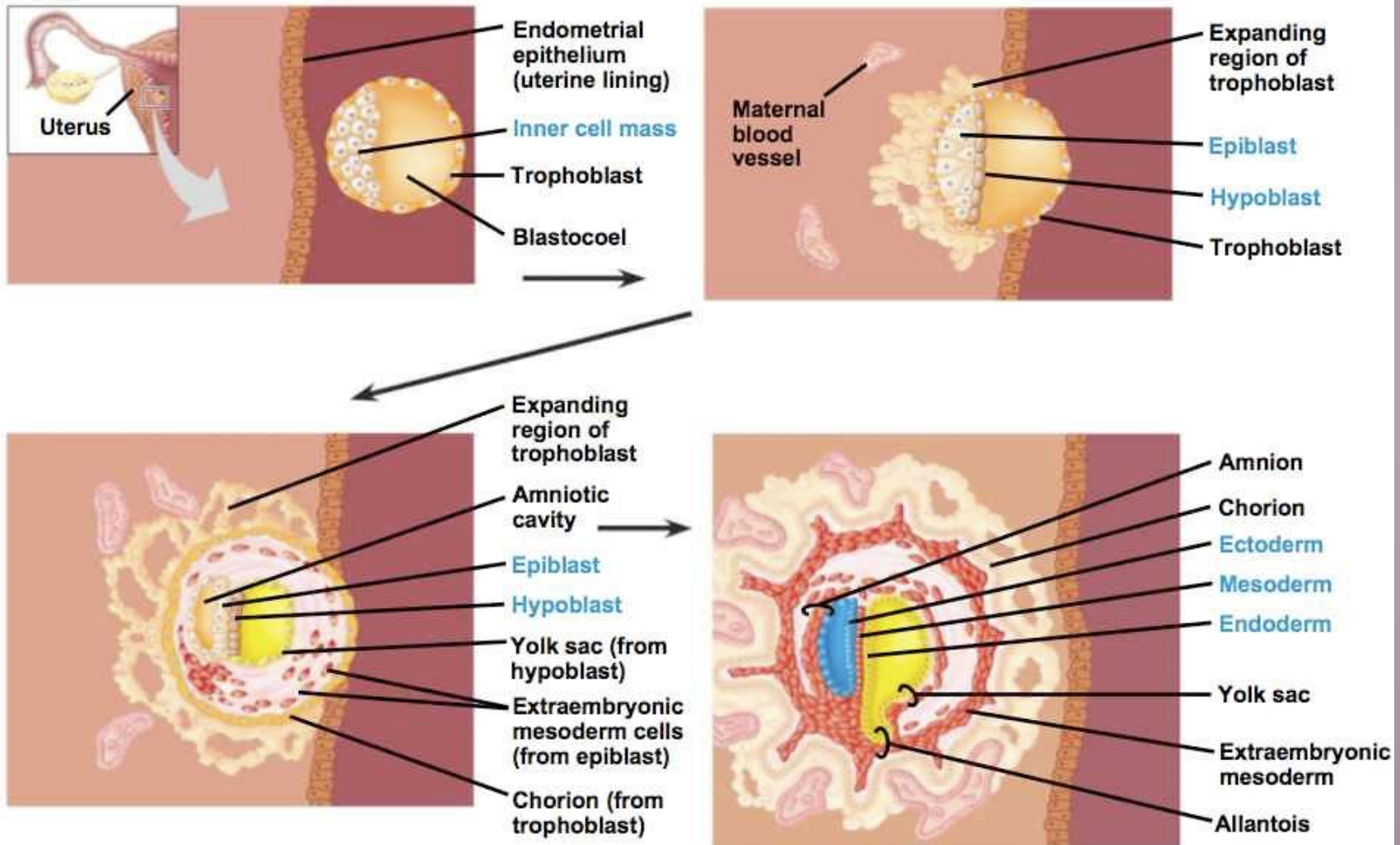


week 8/9

**BABY!**

# BLASTOCYST → GASTRULATION

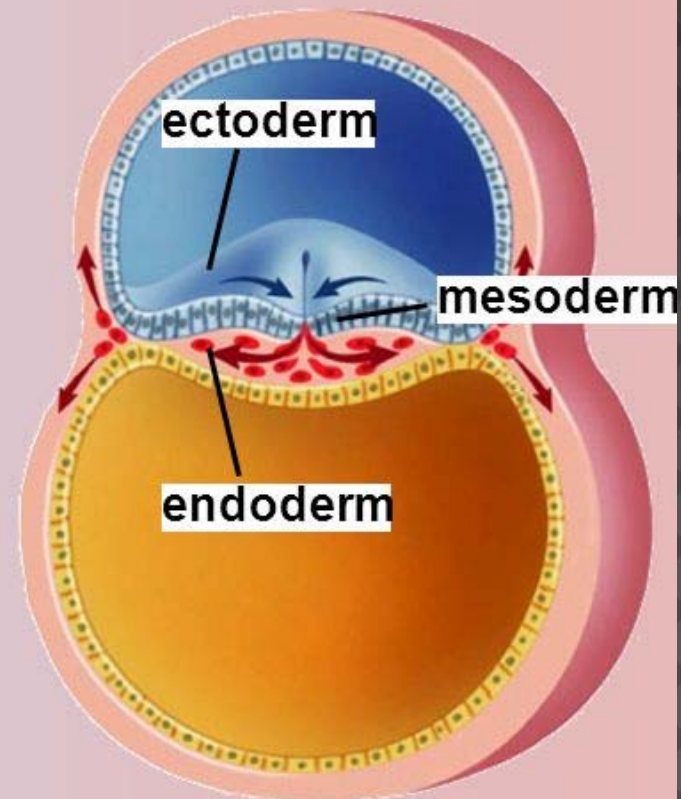
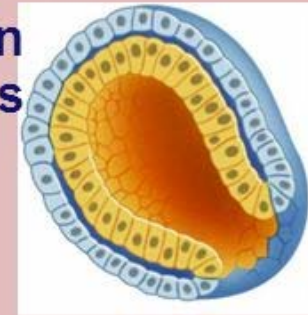
Fig. 47-16-5



# Gastrulation

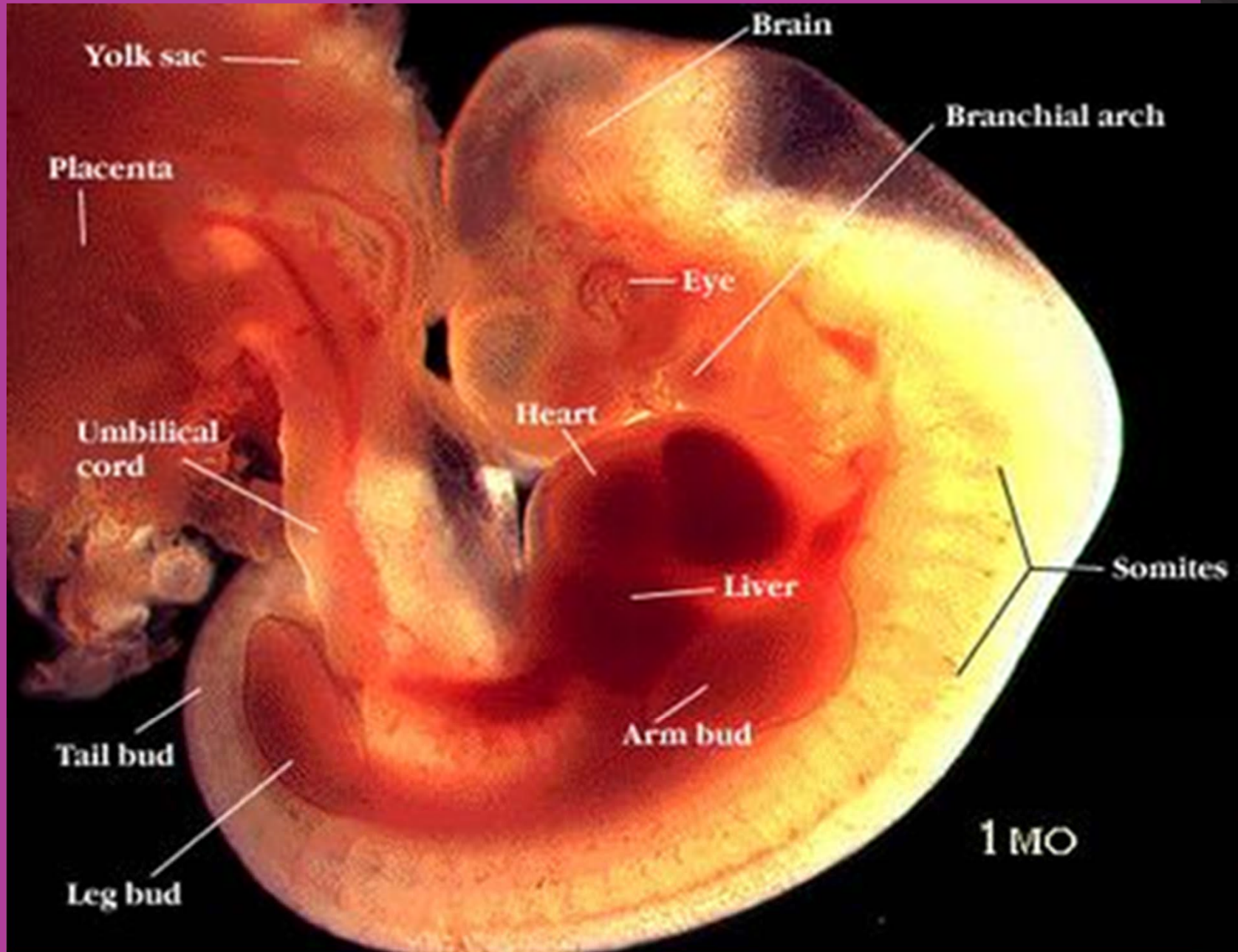
- Establish 3 cell layers
  - ectoderm
    - outer body tissues
      - skin, nails, teeth, nerves, eyes, lining of mouth
  - mesoderm
    - middle tissues
      - blood & lymph, bone & notochord, muscle, excretory & reproductive systems
  - endoderm
    - inner lining
      - digestive system, lining of respiratory, excretory & reproductive systems

gastrulation in primitive chordates



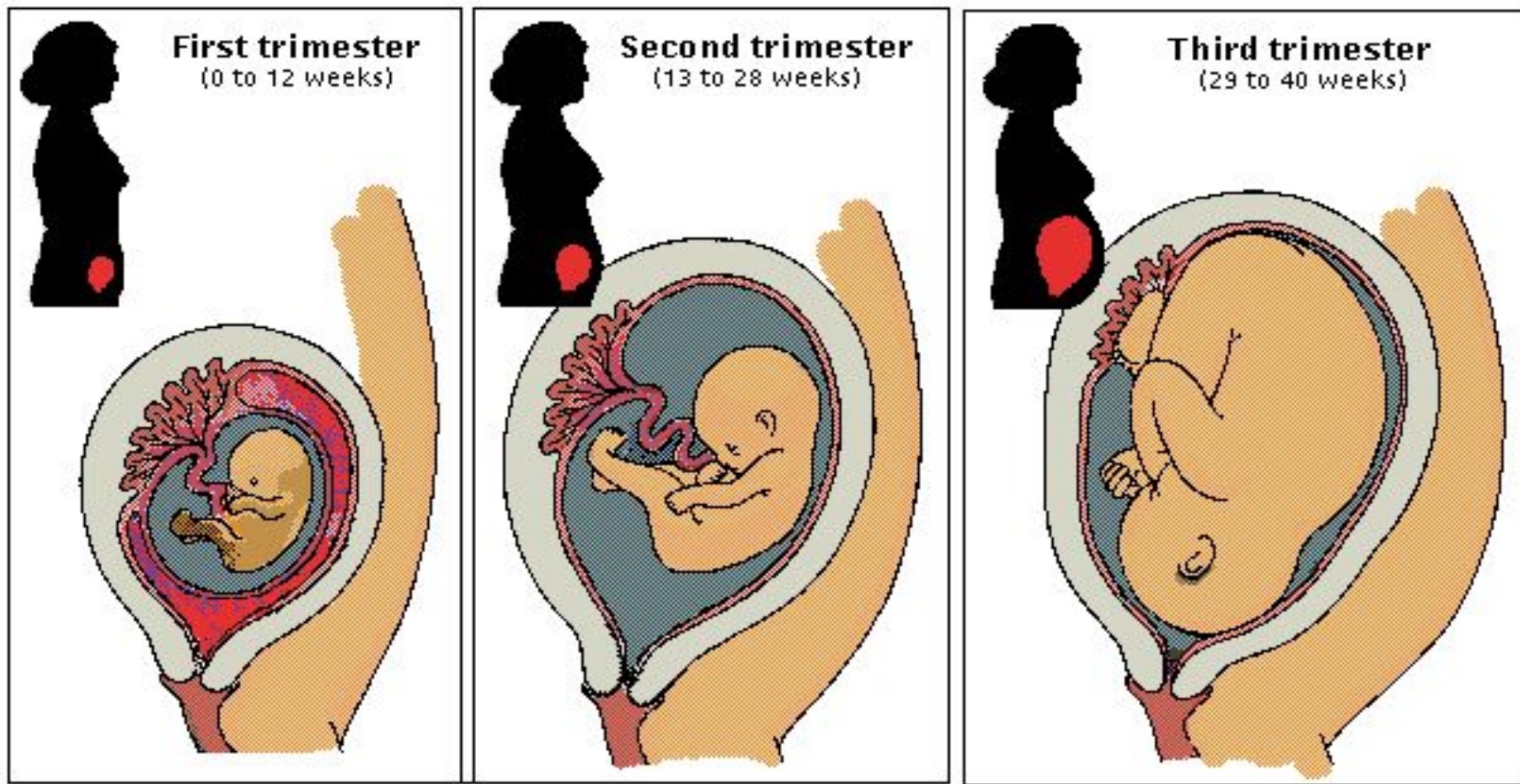
protostome vs. deuterostome





# TriMesters

## 3 distinct periods of *GROWTH & DEVELOPMENT*



## 1<sup>st</sup> TriMester

1. Dramatic changes
2. **Embryo → Blasto → Gastrulation**
3. **AMNIOTIC SAC**: sac in which fetus develop
4. **PLACENTA**: organ connecting fetus to the uterine wall- allow nutrient uptake, waste elimination, gas exchange via the mother's blood supply
5. **ALL ORGAN SYSTEMS HAVE BEGUN TO FORM:**
  1. Brain
  2. Heart – heartbeat after 5wks
  3. Kidneys

## 2<sup>nd</sup> TriMester

1. **SKELETON** begins to form
2. Soft hair (lanugo) develops over skin
3. **FIRST MOVEMENTS**
4. **Fetus wakes & sleeps**

## 3<sup>rd</sup> TriMester

1. **FETUS RESPONDS TO LIGHT, MUSIC**
2. **NERVES FORM IN LARGE NUMBERS**
3. **FAT DEPOSITS** under skin **DEVELOP**, so it can maintain body temp AND survive when born

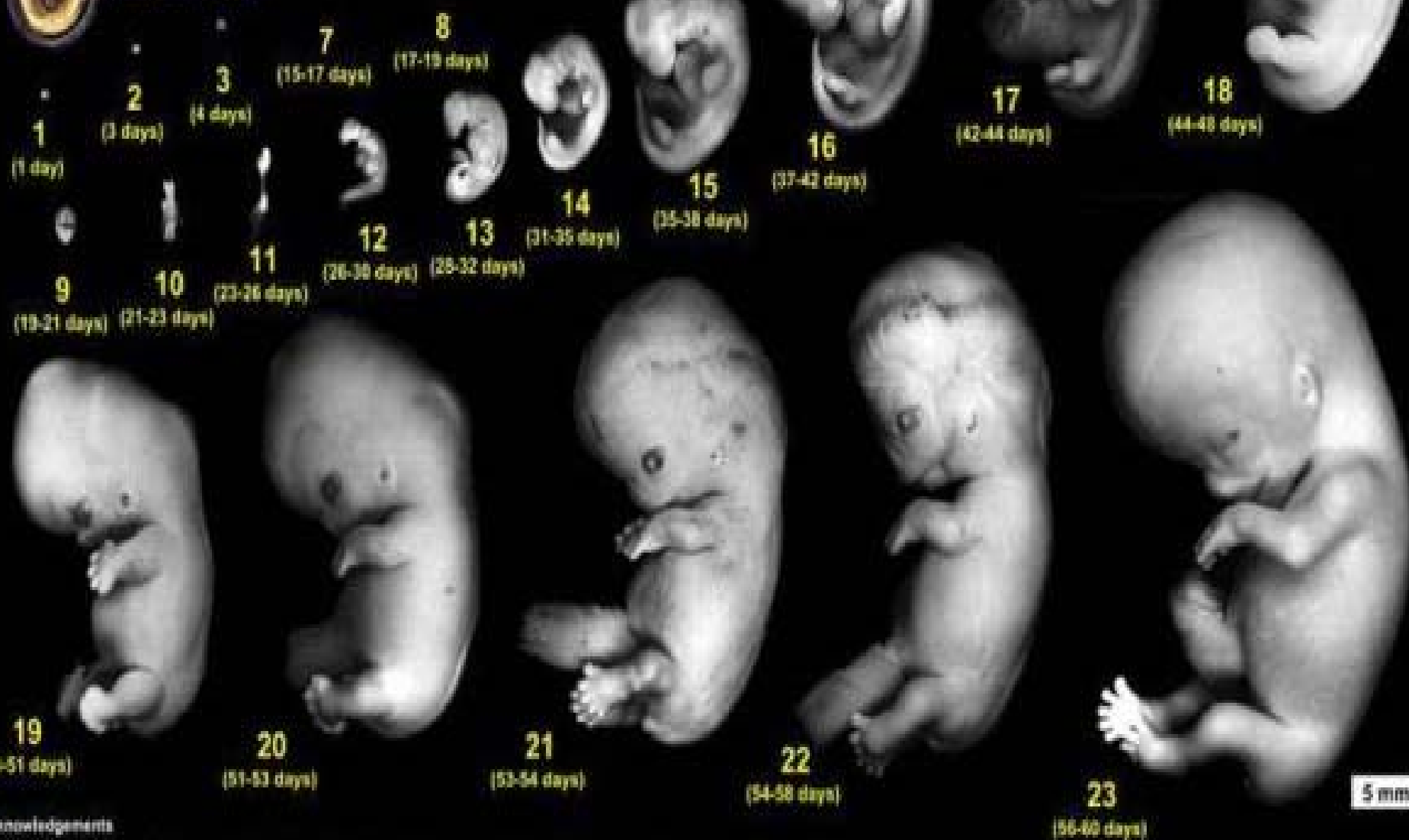
# Carnegie Stages of Human Development

Dr Mark Hill, Cell Biology Lab, School of Medical Sciences (Anatomy), UNSW



**Stage 1 Zygote**

(1 day, not to scale)



**1**  
(1 day)

**2**  
(3 days)

**3**  
(4 days)

**7**  
(15-17 days)

**8**  
(17-19 days)

**16**  
(37-42 days)

**17**  
(42-44 days)

**18**  
(44-48 days)

**9**  
(19-21 days)

**10**  
(21-23 days)

**11**  
(23-26 days)

**12**  
(26-30 days)

**13**  
(28-32 days)

**14**  
(31-35 days)

**15**  
(35-38 days)

**19**  
(48-51 days)

**20**  
(51-53 days)

**21**  
(53-54 days)

**22**  
(54-58 days)

**23**  
(56-60 days)

5 mm

Acknowledgements

Special thanks to Dr. S. J. DiMarco and Prof. Robert Srinivas for allowing reproduction of their research

- <https://www.youtube.com/watch?v=jk0F-TnKFwU>

- [https://www.youtube.com/watch?v=h82ltr84\\_Yg](https://www.youtube.com/watch?v=h82ltr84_Yg)