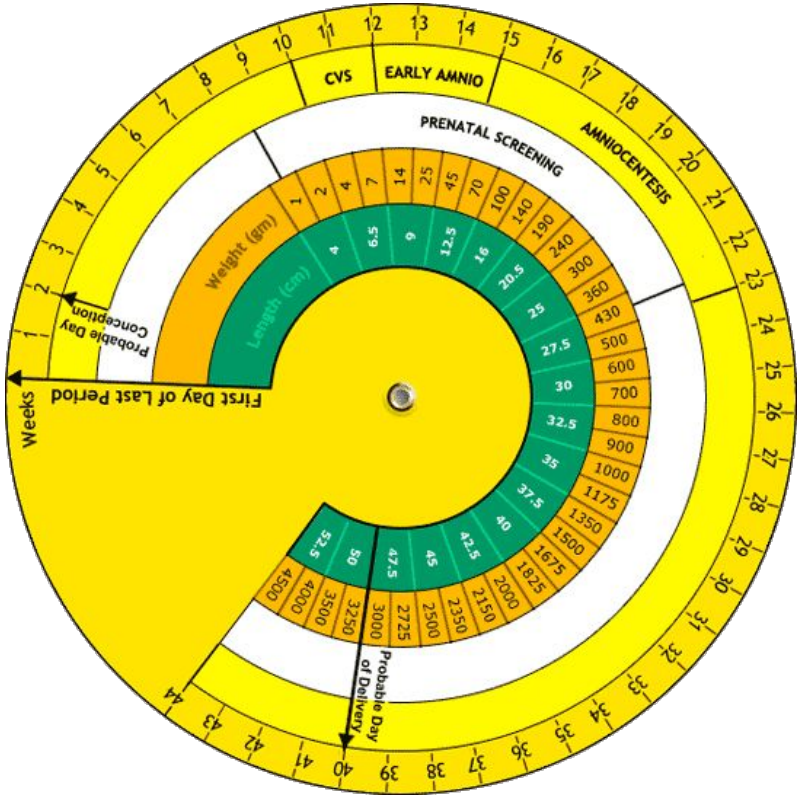


# Embryology & Fetal Development

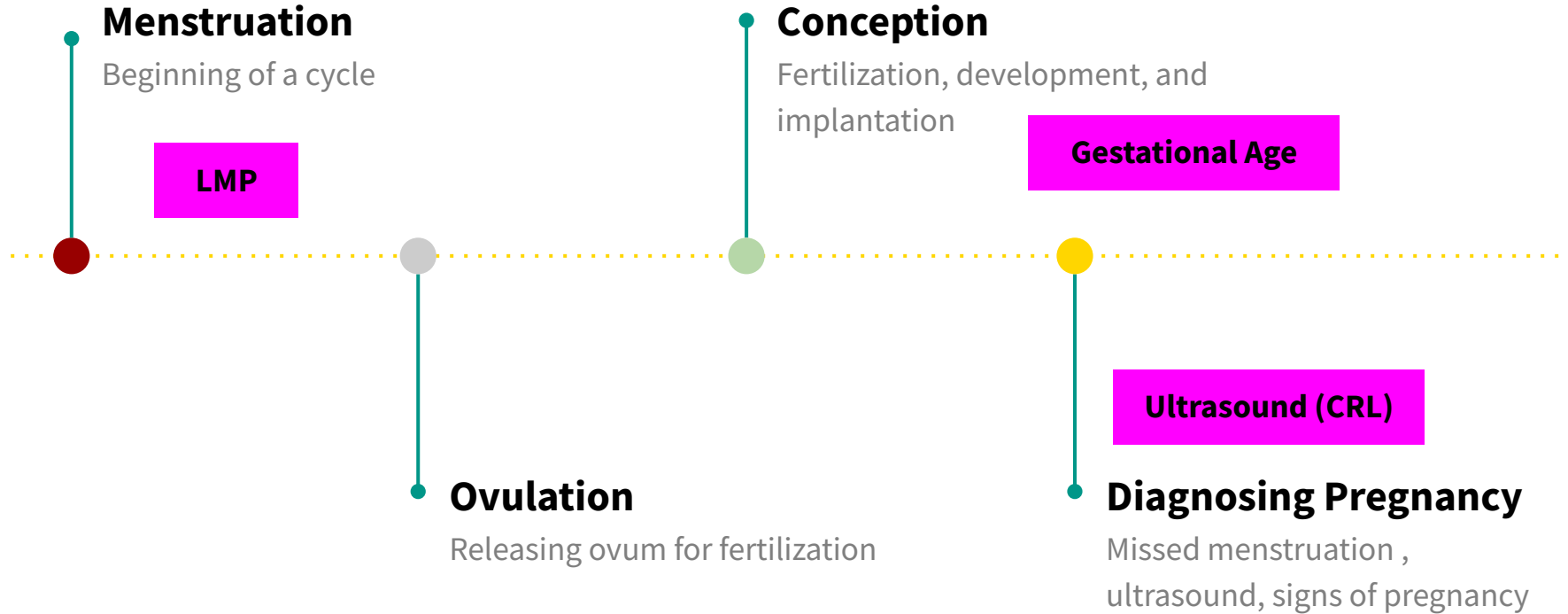
HIVE session Nov 9, 2022



# LMP (menstrual age) v. Gestational Age (conceptual age)



# Dating a Pregnancy



# LMP

- Neagles' Rule
  - Woods Method
  - Gestational Wheels
  - Apps (calculators)
-

# Gestational Age (by conception)

- Usually in retrospect without adding LMP for discussing embryology
  - Difficult to proactively date this way unless very sure of date of insemination (however- range of implantation)
  - Consider... ART
-

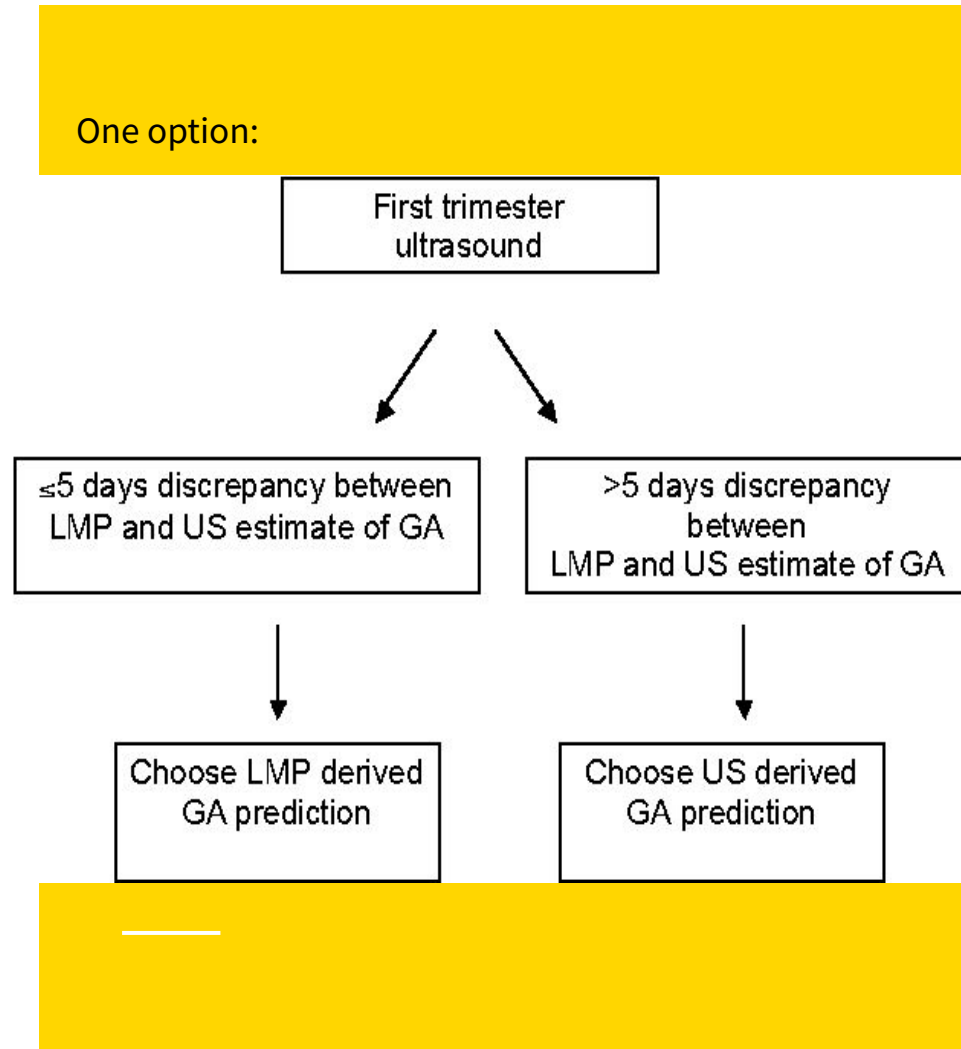
# Ultrasound

- Optimally, dated between 1.0-6.9cm (10-69mm) CRL
- Usually about 6-11 weeks
- Both too early and too late can be less reliable

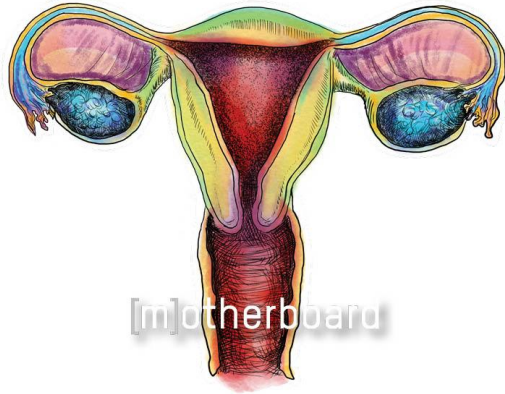
---

# Be consistent with your chosen dating method & don't re-adjust

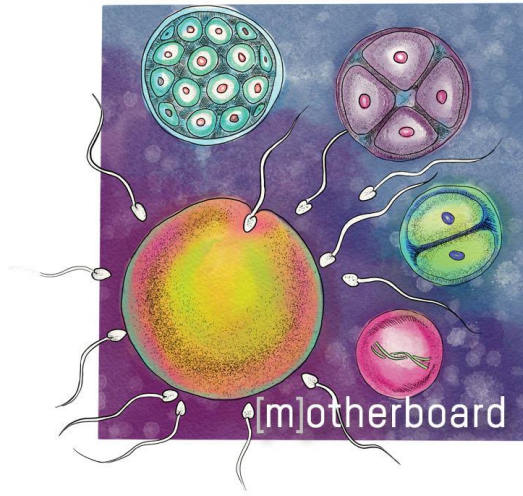
Only LMP  
Only Ultrasound  
Algorithm  
What if info is sparse?



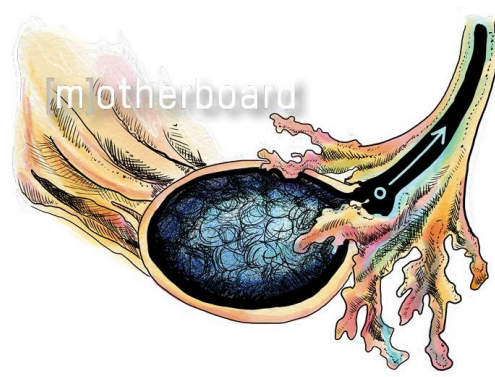
1



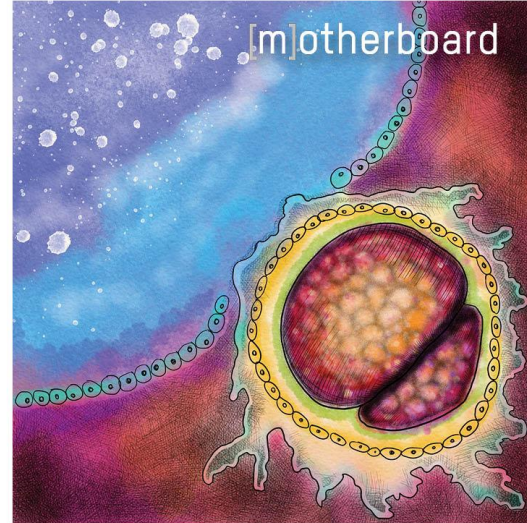
3



2

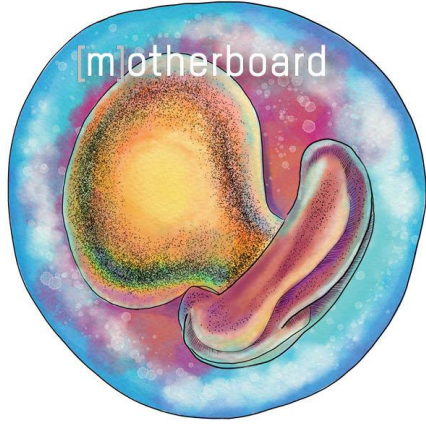


3

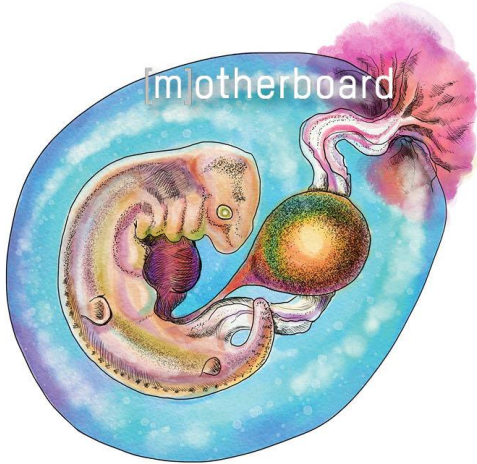




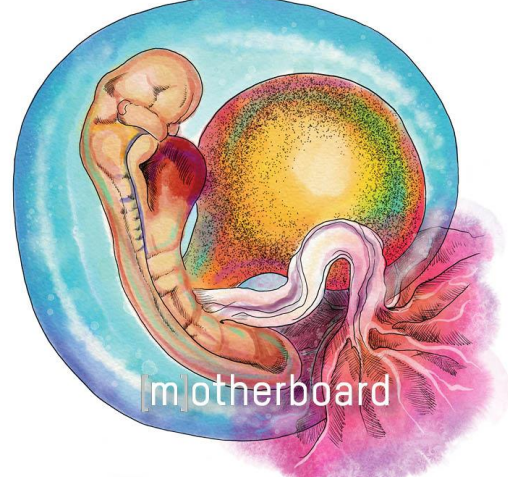
4



6



5



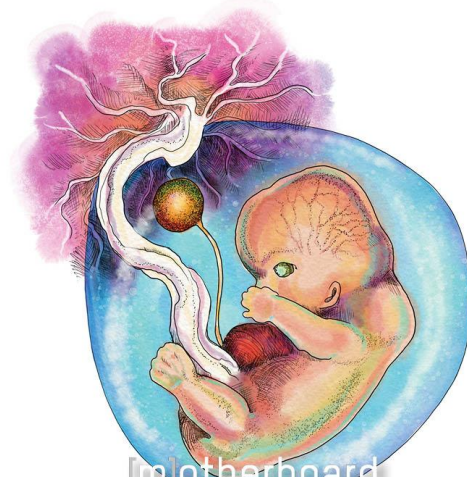
7



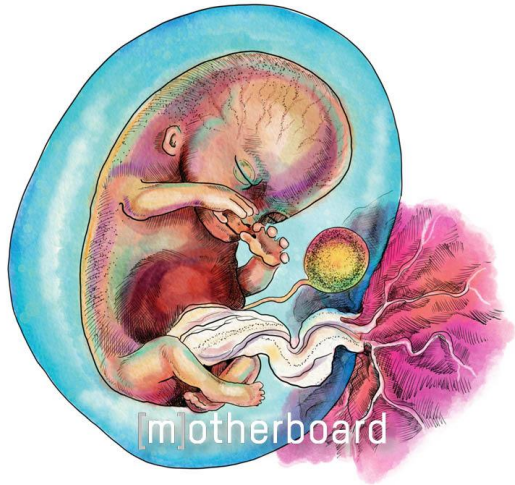
8



9



10



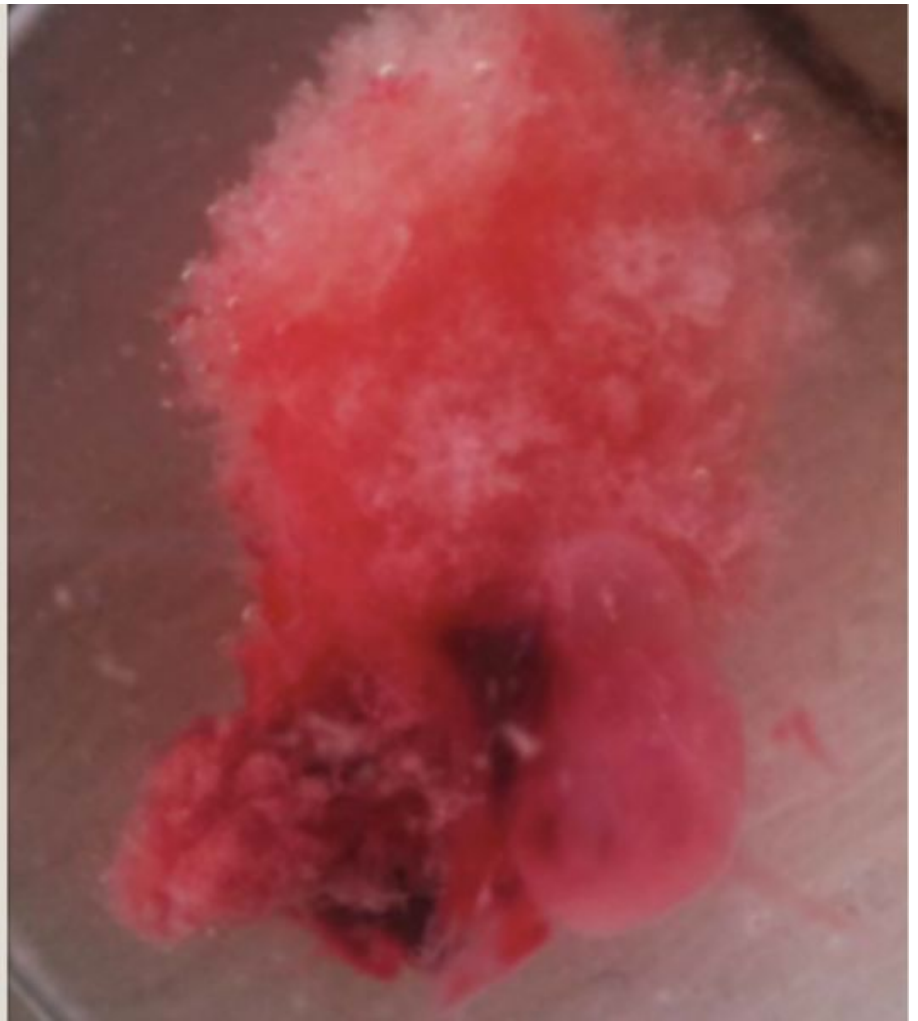
11



# Chorionic Villi

The precursors to a placenta

Feathery, translucent like a sea anemone



# CHORIONIC VILLI

6 WEEKS



@MOLLY\_DUTTONKENNY

# EARLY PLACENTA

8-9 WEEKS



@MOLLY\_DUTTONKENNY

# EARLY PLACENTA

9-10 WEEKS



@MOLLY\_DUTTONKENNY

# Risks to healthy development

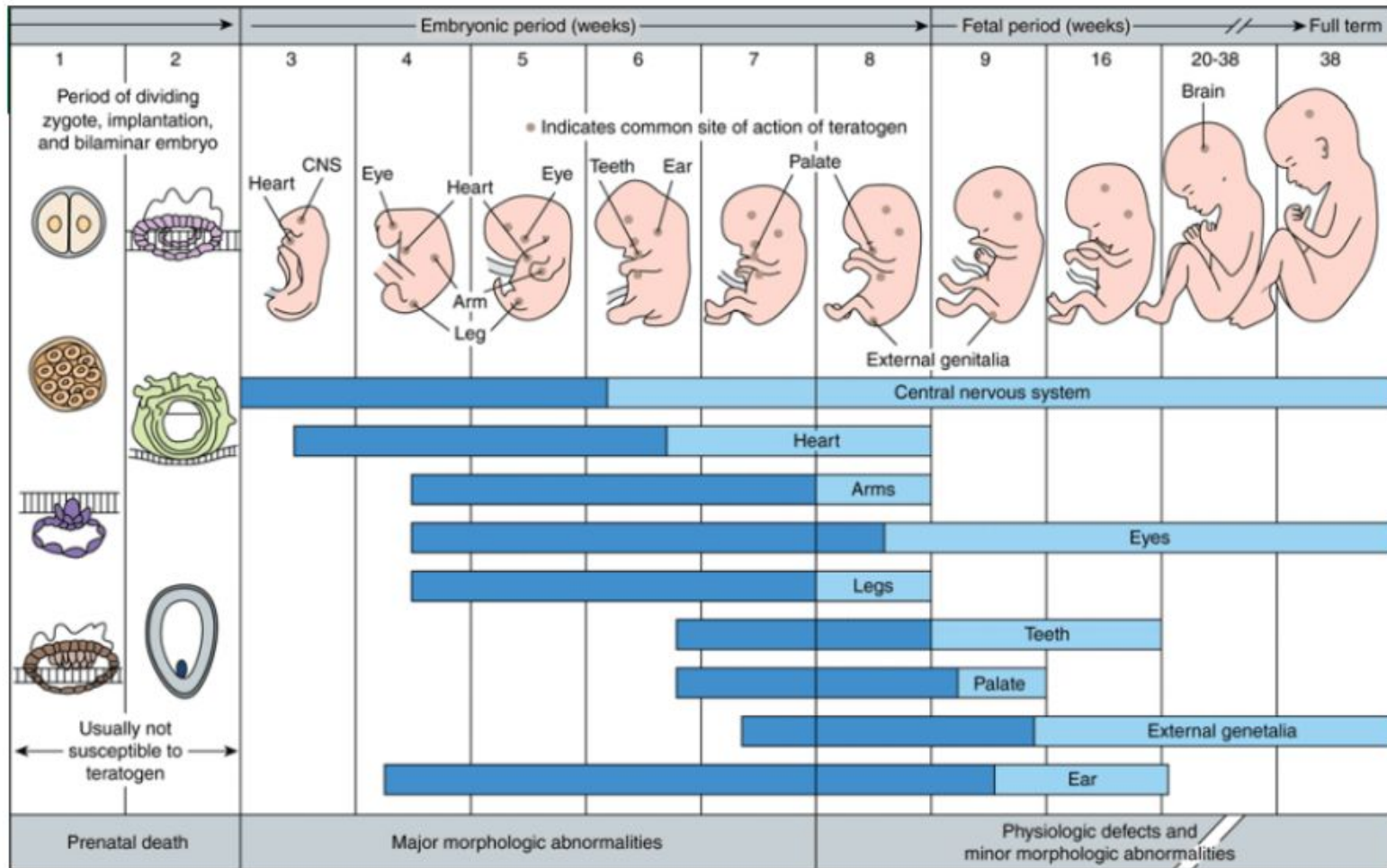
- Foods
  - Drugs & Alcohol
  - Viruses (CHEAP TORCHES)
  - Teratogens
-

How do we  
support healthy  
growth and  
development of  
an embryo?

**How do we talk  
about embryology  
with clients?**



**What risks are  
there to healthy  
development of  
an embryo/fetus?**



Period of dividing zygote, implantation, and bilaminar embryo



Usually not susceptible to teratogen

Embryonic period (weeks)

Fetal period (weeks)

Full term

1

2

3

4

5

6

7

8

9

16

20-38

38

Heart

CNS

Eye

Heart

Eye

Teeth

Ear

Palate

Arm

Leg

External genitalia

Brain

Central nervous system

Heart

Arms

Eyes

Legs

Teeth

Palate

External genitalia

Ear

Prenatal death

Major morphologic abnormalities

Physiologic defects and minor morphologic abnormalities