

The Early Stages of Human Life: The First Three Months

Conception

- zygote - merger of a male sperm & a female egg
- 4 weeks
 - heart beating and BV developed
 - already assuming a recognizable human form
- 8 weeks
 - all organs formed
 - external features established
 - responds to touch
 - muscle movement possible
- 12 weeks (3 months)
 - ~3 inches long
 - every detail of basic structure is developed
 - brain parts fully formed
 - responds to environmental change
- growth within the mother's womb continues for ~30 more weeks

Gestation

- 38-40 week period of development before birth
- amniotic sac - child protected by sac of fluid

SYSTEMS

- Nervous System
 - ~3 weeks – NS begins to appear
 - ~6 weeks – child's brain emits N impulses
 - ~7 weeks – respond to touch
 - ~12 weeks – brain fully formed (parts)
 - definitely responds to environment & injury
- Digestive System
 - ~3 weeks – digestive tube present
 - ~6 weeks – stomach begins to make digestive juices
- Circulatory System
 - 17 days – blood cells present
 - ~3 weeks – heart begins to beat
 - ~4 weeks – system of BV is well developed
- Respiratory System
 - ~4 weeks – lungs and various tubes begin to form
 - not used until after birth
- Skeletal System
 - ~5 weeks – has a recognizable shape
 - begins with cartilage model
 - from ~8 weeks to ~age 25 – ossification occurs
 - replacement of cartilage with bone
- Muscular System
 - ~7 weeks – voluntary muscles capable of moving spontaneously