



## 8 Week Embryo (30mm/3g)

- Carnegie Stage 23
- The heart beats approximately 7.4 million times during the embryonic period
- More than 90% of the 4500 plus named structures of the adult body appear during the embryonic period

## 9 Week Fetus (40mm/17g)

- Amniotic fluid is swallowed
- Thumb sucking and grasping begin
- Early muscular movements occur

## 10 Week Fetus (50mm/23g)

- Gender differences are apparent in external genitalia
- Yawning occurs
- First permanent tooth buds form

## 11 Week Fetus (65mm/40g)

- Nose begins to develop bridge
- Taste buds cover inside of mouth
- Stomach musculature can contract

## 14 Week Fetus (115mm/100g)

- Stimulation near the mouth now evokes a turn toward the stimulus while the fetus opens the mouth
- The face continues to mature: the nasal plugs disappear, fat deposits fill out the cheeks and tooth development begins

## 17 Week Fetus (150mm/240g)

- In the teeth, enamel begins to develop
- The vast majority of neuron multiplication in the brain is complete
- Fingernails are well formed

## 20 Week Fetus (190mm/400g)

- Eyelids and eyebrows develop
- The cochlea (the frequency analyzer of the ear that converts sound waves of varying frequencies into electrical impulses which are then communicated to the brain) reaches adult size within the fully developed inner ear

## 25 Week Fetus (240mm/1000g)

- Impressive lung development and primitive gas exchange possible in the event of premature birth (\*by 24 weeks)
- Brain growth spurt occurs, consumes more than 50 percent of the energy used by the fetus, results in a brain weight increase between 400 and 500 percent
- The highly-developed eye now contains light-sensing cells called rods and cones (rods allow the eye to detect very low levels of light, while cones detect color and produce sharp, highly focused images)

### Human Embryo

The scientific name for a pre-born human being during this first 8 weeks (56 days) of his or her biological development.

### Human Fetus

The scientific name for a pre-born human being from 9 weeks through birth.

### Sources:

O'Rahilly R, Müller F. Human Embryology and Teratology.  
 Carlson BM. Human Embryology & Developmental Biology.  
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[Ehd.org](http://Ehd.org). (2019). Interactive Prenatal Development Timeline - All Events.

Learn more scientific facts about early human development at [contendprojects.org](http://contendprojects.org)