

## Stages of Prenatal Development

### FIRST MONTH:

Fertilization occurs  
 Zygote implants itself in the lining of the uterus  
 Rapid cell division occurs  
 Embryonic stage lasts from 2 weeks to 8 weeks  
 Cells differentiate into three distinct layers:  
 the ectoderm, the mesoderm, and the endoderm  
 Nervous system begins to develop  
 Embryo is 1/2 inch long

### SIXTH MONTH:

Eyes and eyelids fully formed  
 Fat is developing under the skin  
 Fetus is 14 inches long and weighs 2 pounds



### SECOND MONTH:

Heart and blood vessels form  
 Head area develops rapidly  
 Eyes begin to form detail  
 Internal organs grow, especially the digestive system  
 Sex organs develop rapidly and sex is distinguished  
 Arms and legs form and grow  
 Heart begins to beat faintly  
 Embryo is 1 inch long and weighs 1/10 ounce

### SEVENTH MONTH:

Cerebral cortex of brain develops rapidly  
 Fetus is 17 inches long and weighs 3 pounds



### THIRD MONTH:

Head growth occurs rapidly  
 Bone formation begins to form rapidly  
 The digestive organs begin to function  
 Arms, legs, and fingers make spontaneous movements  
 Fetus is 3 inches long and weighs 1 ounce

### EIGHTH MONTH:

Subcutaneous fat is deposited for later use  
 Fingernails reach beyond the fingertips  
 Fetus is 17 inches long and weighs 5 pounds



### FOURTH MONTH:

Lower parts of the body show rapid growth  
 Bones are distinct in X rays  
 Reflex movement becomes more active  
 Heartbeat detected by physician  
 Sex organs are fully formed  
 Fetus is 7 inches long and weighs 5 ounces

### NINTH MONTH:

Hair covering the entire body is shed  
 Organ systems function actively  
 Vernix is present over the entire body  
 Fetus settles into position for birth  
 Neonate is 21 inches long and weighs 7 pounds



### FIFTH MONTH:

Mother begins to feel reflex movements  
 A fine, downy fuzz covers the entire body  
 Vernix (a waxy coating) collects over the body  
 Ears and nose begin to develop cartilage  
 Fingernails and toenails begin to appear  
 Fetus shows hiccups, thumb sucking, and kicking  
 Fetus is 12 inches long and weight 14 ounces

