Prenatal Development Facts

- Pregnancy in humans normally lasts approximately 38 weeks as measured from the time of fertilization, or conception, until birth.

- Biologically speaking, "human development begins at fertilization," with the union of the male and female reproductive cells.

- The heart begins beating 3 weeks and one day following fertilization.

- Between 3 and 4 weeks, the body plan emerges as the brain, spinal cord, and heart of the embryo are easily identified alongside the yolk sac.

- The embryo begins to make spontaneous and reflexive movements 5 1/2 to 6 weeks after fertilization. Prenatal movement is necessary to promote normal bone and neuromuscular development.

- Electrical activity of the embryo's heart recorded at 7 1/2 weeks reveals a wave pattern similar to the adult's.

- By 7 1/2 weeks fingers are separate and toes are joined only at the bases.

- During the embryonic period, the human embryo grows from a single cell into the nearly one billion cells which form over 4,000 distinct anatomic structures.

- The 8-week embryo possesses more than 90% of the structures found in adults.

- The 9-week fetus can grasp an object, move the head forward and back, open and close the jaw, move the tongue, sigh, and stretch.

- By 9 weeks after fertilization, nerve receptors in the face, the palms of the hands, and the soles of the feet can sense light touch.

- Between 9 and 10 weeks body weight increases by over 75%.

- Fat deposits begin to fill out the cheeks by 14 weeks.

- By 20 weeks the cochlea, which is the organ of hearing, has reached adult size within the fully developed inner ear. From now on, the fetus will respond to a growing range of sounds.

- The heart of the developing human beats approximately 54 million times before birth.

- Bone formation is underway in most bones by 10 weeks.