



Prenatal Development

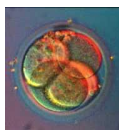
Chapter 9- Life Span Development I



TRUE OR FALSE...
The study of development begins at birth.

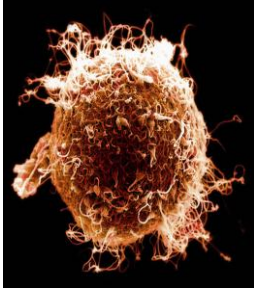


CLASS OBJECTIVE: We will examine the biological process of human development.

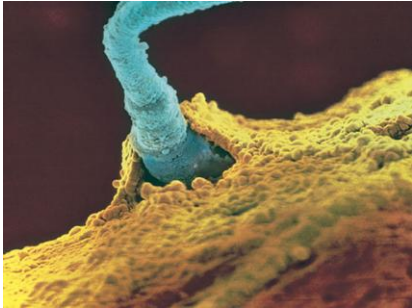


The real "Amazing Race"

- Every human begins very simply with the meeting of one sperm and one ovum (egg).



The sperm "fight" to be the only one that can successfully fertilize the egg.



The first form of life

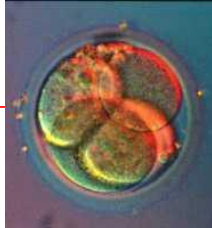


- At conception the genetic material from each parent is fused.

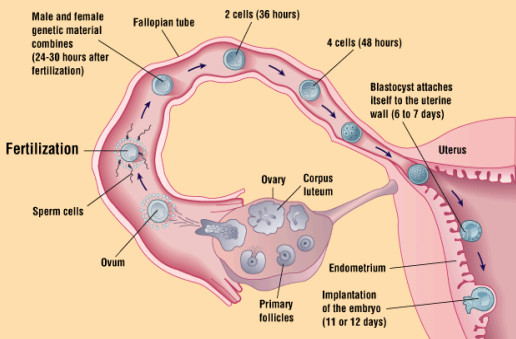
- _____

True or false?

50% of fertilized eggs are lost before a woman finds out she's pregnant.



The Journey of the Ovum Toward the Uterus



From Zygote to human??

- The Zygote will become transformed through a process of three stages:
- _____ - The first two weeks after conception
- Embryonic period - _____
- _____ - The ninth week after conception to birth

Hello Embryo!

- During the *Embryonic stage*, it is still not recognizable as a human.



- The _____ forms (at 22 days), which becomes central nervous system

TRUE OR FALSE?

- Approximately 20% of all embryos are aborted spontaneously

- _____
- _____

7 Weeks...Now what do you see?



- Legs, feet and webbed toes have begun to develop

- _____
- _____
- _____

- The embryo is 2 ½ centimeters long

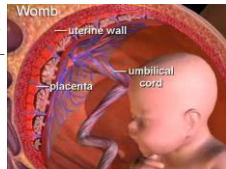
8 Weeks

- The embryo is now recognizable as a human
- The embryo now weighs 1 gram and is 1 inch long
- _____
- _____
- _____
- The "tail" is no longer visible and is now incorporated into the lower spine



The *placenta* also forms during this early period

- The placenta is a mass of tissue attached to the uterine wall _____
- Connects its circulatory system with the mother
- The embryo and placenta are connected by the umbilical cord



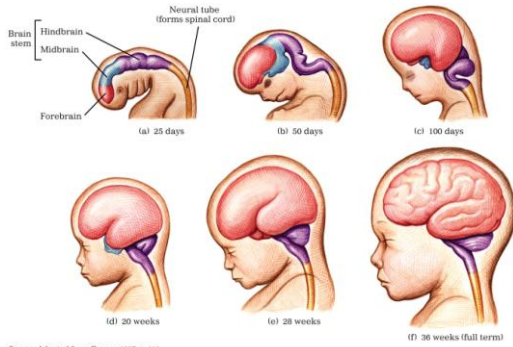
The Fetus: Week 9-Birth

- *The Brain* grows dramatically (6 times in size) and becomes responsive during this time.
- At 22 weeks the fetus reaches _____
- _____
- _____
- There is only a 50% survival rate at 26 weeks



Without proper brain development, the most advanced technology cannot keep the body alive

It's All About the Brain!



Source: Adapted from Cowan, 1987, p. 118

Research shows that fetuses can develop sight very early in the womb.



Fetuses spend roughly 90% of their time in the womb asleep.



It was previously thought that emotions were only expressed after birth



Next Class...

- What factors can influence prenatal development?
