

Developing through the Lifespan

Module 10:
Prenatal development and Infancy

Class Objectives

- What is Developmental Psychology?
- Prenatal Development
- Factors that influence prenatal development



Development refers to the _____
that occurs throughout the course of life.

Developmental psychologists are interested in how people change, physically and psychologically _____

Three types of change



Physical- Involve changes in an individual's _____

_____ Involve changes in an individual's thought, intelligence, and language.

Socio-emotional- Involve changes in an individual's relationships with other people, in emotions, and in personality.

These physical, cognitive, and socio-emotional processes are intricately interwoven



Researchers in developmental psychology are interested in the ways that these processes change over the human life span.

Developmental psychologists seek to understand how nature and nurture influence development.



How can we define Nature versus Nurture?



Which most influences development?

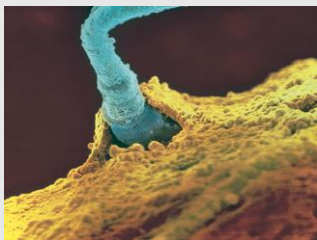


- ☞ Nature refers to a person's biological inheritance,
- ☞ Nurture refers to the individual's environmental and
- ☞ Determining which one is more influential to our development has been a long-running debate in psychology.

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



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



The first form of life

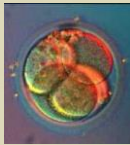


At conception the genetic material from each parent is fused.

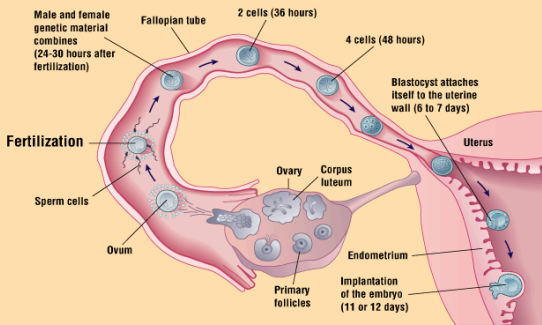
A living cell called the



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
- _____ - The 3rd to the 8th week after conception
- _____ - 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



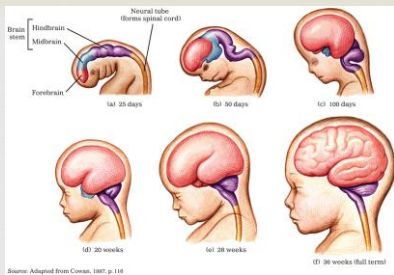
The Fetus Week 9-Birth



☞ The Brain grows dramatically (6 times in size) and becomes responsive during this time.

☞ _____
_____ which is the age a preterm baby can survive.

☞ There is only a 50% survival rate at 26 weeks



The Brain **MUST** be able to sustain the body for survival

It was previously believed that emotions were only expressed after birth





What factors influence prenatal development?



Test Your Knowledge! True or False?



- Most babies are born healthy and most hazards can be avoided.
- There are very few prenatal factors that can harm a developing person.
- Prenatal exposure to a dangerous substance is only harmful in the first trimester of the pregnancy.
- Research has proven that drinking alcohol (in any amount) during pregnancy is safe.

Is the prenatal
environment that
important??



Is the prenatal
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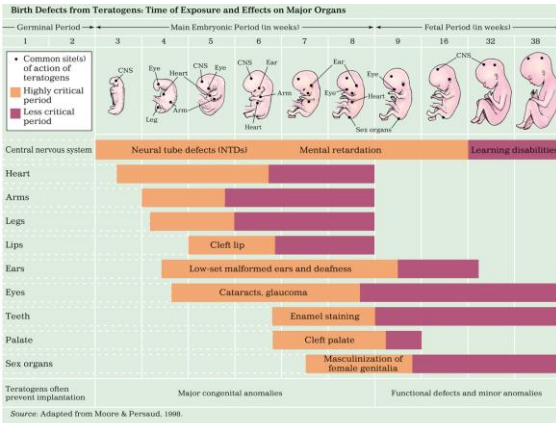
It's all about timing...



☞ The effect of a teratogen is very personal because the impact depends on the timing of exposure.

☞ *Critical period* is the time when a particular organ or _____

☞ Different teratogens can cause damage at different _____



Fetal Alcohol Syndrome (FAS)



☞ This syndrome is caused by a mother drinking excessive amounts of alcohol during pregnancy.

- Particularly weeks 10-20



Each child has FAS, which causes specific facial characteristics



Facial Characteristics

- _____
- _____
- _____
- _____



Approximately 10,000 infants are born each year with physical or cognitive disabilities associated with maternal drinking.



-Every 1 in 750 births

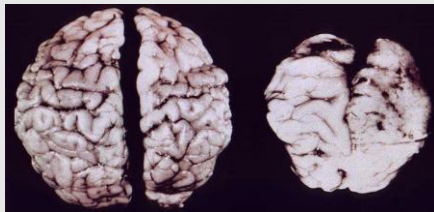


The presence of alcohol in the fetus's bloodstream triggers widespread cell death in the fetal brain.

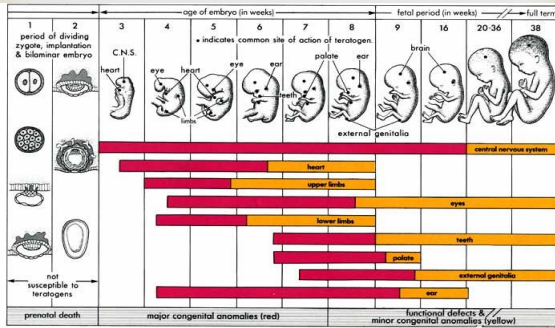


Brain of 6-week-old baby without FAS

Brain of 6-week-old baby with FAS



When is the CNS most vulnerable?



Other Factors



- ☞ Sexually Transmitted Diseases
 - HIV, gonorrhea, syphilis can infect the fetus before or during delivery and increased still births and pre-term births
- ☞ Nutrition
 - Especially folic acid
- ☞ Maternal age
 - Negatively affect development if mom is an adolescent or over the age of 35
- ☞ Emotional states and stress
 - When a pregnant woman experience intense fears, anxieties, and other emotions - physiological changes occur that may affect her fetus
