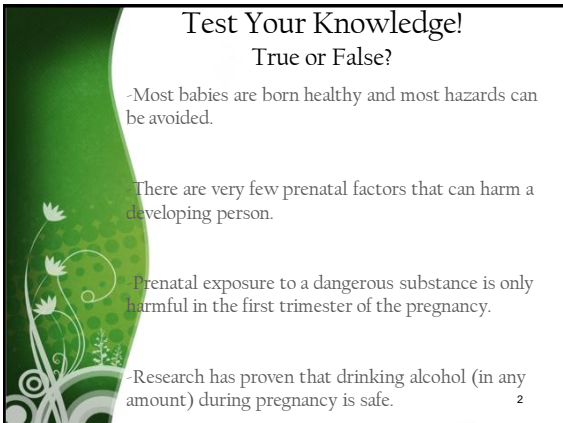




Chapter 9- Life Span Development I

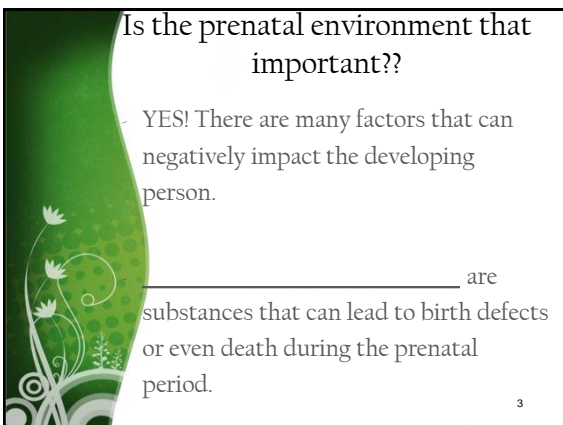
CLASS OBJECTIVE:
What factors influence prenatal development?



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.

2



Is the prenatal environment that important??

YES! There are many factors that can negatively impact the developing person.

_____ are substances that can lead to birth defects or even death during the prenatal period.

3

What are some factors that would influence prenatal development?

Almost anything can impact a developing fetus

4

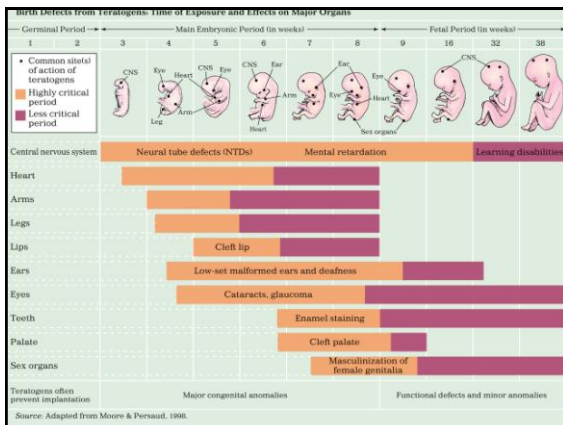
It's all about timing...

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

_____ is the time when a particular organ or body part is the most susceptible to damage

Different *teratogens* can cause damage at different times during development and each

5



Fetal Alcohol Syndrome (FAS)

- This syndrome is caused by a mother drinking _____

- Heavy drinking during the second trimester seems to cause more features of FAS.

- Particularly weeks 10-20



What does FAS look like?



A child with Fetal Alcohol Syndrome (O'Rahilly 1996).

Facial Characteristics

- Flattened features
- Low-set ears
- Down syndrome-like appearance

8

Facial abnormalities are an obvious indicator of FAS



- _____
- Small, widely-spaced eyes
- Prolongation of the fold of the upper eyelid
- A short, upturned nose
- _____
- Thin upper lip

9



Approximately 10,000 infants are born each year with physical or cognitive disabilities associated with maternal drinking (Jacobson, 1997).

- Every 1 in 750 births

10

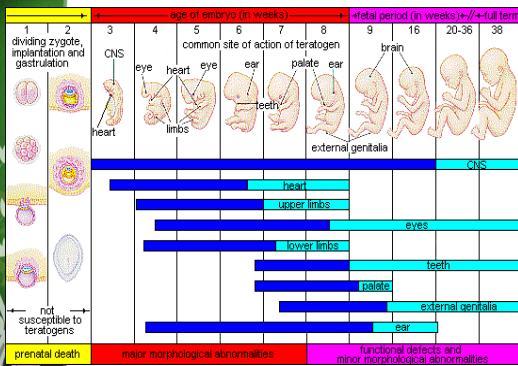
The presence of alcohol in the fetus's bloodstream triggers

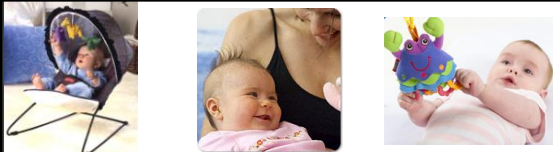
Normal brain of 6-week-old baby

Brain of 6-week-old baby with FAS



When is the CNS most vulnerable?






How do infants experience the world?

Objectives:
 What senses do newborn babies have?
 What are Primary Reflexes?

13

After birth the period of Infancy begins



14

Infants are born with innate primary reflexes:

- Indicate whether the newborn's nervous system is working properly.
- They can also be used to assess development during infancy

15

The Primary Reflexes

1. The *Babinski Reflex* causes the toes to fan when the sole of the foot is touched.
2. The *Moro reflex* causes the newborn to stretch out the arms and legs and cry in response to a loud noise.
3. In the *Rooting reflex*, the head is turned toward a touch on lips or cheek.
4. *The Sucking reflex* will reflexively occur in response to finger or nipple in mouth.
5. The *Grasping reflex* causes newborn to grasp any object touching the palm or fingers.

16



How we develop attachment?

Ch.10-Life Span Development II

17

CLASS OBJECTIVES

- What is attachment?
- How and why do we develop attachment relationships?

18

What was Your first attachment relationship?



The first special relationship we experience develops

It is believed that this relationship will influence the development of our future relationships



20

What is Attachment?

©

- A close emotional bond that is "person-specific" and is enduring across time.

21

How do you know an infant is attached to someone?



Infants show their attachment through

22

How does love develop between mother and child?

Harry Harlow studied the impact of security and “contact comfort” on infant attachment.

23

Harry Harlow (1959)
“The Monkey Love experiments”



• Harlow evaluated whether

- The young animals were “raised” by two kinds of surrogate monkey mother machines.

• One mother was made of soft terry cloth, the other made of wire mesh

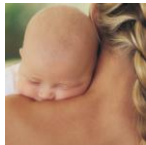
24

“Monkey Love Experiments”

- Harlow's research showed that the need for _____ created a stronger bond between mother and infant than did physical needs (food).



Harlow's work suggested that the development of a child's love for their caregiver was



26

What does this mean for humans?

Harlow showed that the development of attachment was closely associated _____

- It is difficult or impossible to compensate for the loss of initial emotional security

Further experiments on abusive conditions showed that no matter how abusive the “Iron Maidens” were, the baby monkeys always came back and displayed affection towards them.

- Even in the face of abuse, the need for love was overwhelming

27

What happened to these monkeys?

- Monkeys raised without their mothers were socially maladjusted the rest of their lives.
- “When confronted with fear, they displayed autistic and institutionalized behaviors—throwing themselves on the floor, clutched themselves, rocked back and forth, and screamed in terror.”

They were incapable of having sexual relations and they were also unable to parent their offspring, either abusing or neglecting them.

28

“Not even in our most devious dreams could we have designed a surrogate as evil as these real monkey mothers were.”

29

Did Harlow’s work influence our society?
True or false?

- Less than 50 years ago parents were told by doctors that rocking or picking up a crying infant could “damage” them.

30

True or False?

- Lack of attachment can be made up for later in life by a lot of contact with peers

31

It is beneficial to place a newborn directly on its mother's belly after birth

32

The Quality of Attachment

Based on how the infant reacts to separation from the caregiver and the reunion by using a procedure known as the Strange Situation.

Ainsworth (1993) and others have identified 4 basic types of attachment relationships

1. Secure Attachment
2. Insecure/Resistant
3. Insecure/Avoidant
4. Insecure/Disorganized

33

experimenter

3

5

8

mother

- 1 Observer shows the experimental room to mother and infant, then leaves the room.
- 2 Infant is allowed to explore the playroom for 3 minutes; mother watches but does not participate.
- 3 A stranger enters the room and remains silent for 1 minute, then talks to the baby for a minute, and then approaches the baby. Mother leaves unobtrusively.
- 4 The stranger does not play with the baby but attempts to comfort it if necessary.
- 5 After 3 minutes, the mother returns, greets, and consoles the baby.
- 6 When the baby has returned to play, the mother leaves again, this time saying "bye-bye" as she leaves.
- 7 Stranger attempts to calm and play with the baby.
- 8 After 3 minutes, the mother returns and the stranger leaves.

A

B

Attachment Style	Percentage
Securely attached	65%
Avoidant	25%
Anxious/Ambivalent	10%

35

Next Class

How does our thinking develop?

-Cognitive development

36
