Problems in Prenatal Development

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Losing a Baby

- When a baby is lost before 20 weeks of pregnancy it is called a miscarriage.
- If it occurs after 20 weeks it is called a <u>stillbirth</u>.

Types of Birth Defects

- These are problems some babies may be born with that threaten their life.
- There are <u>hundreds</u> of birth defects.
- Some are mild and others can be lifelong severities or can cause death.
- About 3 out of every 10 children in the United States are born with birth defects.

Causes of Birth Defects

- Scientist don't understand what causes about 60% of all birth defects.
- Some are caused by <u>factors</u> in the <u>environment</u>.
- Others are caused by <u>abnormal</u> genes or <u>errors</u> in chromosomes.
- Many are result of the environment.

Environmental Causes of Birth Defects

- During the <u>first</u> few <u>weeks</u> of the pregnancy the baby is developing vital <u>organs</u> and <u>systems</u> for <u>survival</u>.
- It is at this time that the baby completely <u>depends</u> on the <u>mother</u> for nourishment and oxygen.
- This means that the mother must make some <u>smart</u> decisions.

Environmental Causes contd.

- The decisions that could affect the baby include:
- Nutrition
- Any diseases during pregnancy
- Harmful substances (alcohol, tobacco, and other drugs)
- Some medicines
- Exposure to outside hazards like radiation

Heredity Causes of Birth Defects

- Thousands of genes make up a genetic blueprint.
- For each person about <u>five or six</u> of the recessive genes are <u>imperfect</u>.
- The problem occurs when the same defective recessive gene is passed from each parent.
- Sometimes too, the <u>defective</u> gene is dominant.
- Sometimes <u>inherited</u> conditions only affect one sex. Examples Hemophilia and color blindness only affect males.

Errors in Chromosomes

- Sometimes there are too many or too few chromosomes in each of the baby's cells.
- This is not a hereditary defect because the child does not inherit the condition from a parent.
- The most common birth defect is <u>Down Syndrome</u>.
- One child in every 800 births has this condition.

Prevention and Diagnosis of Birth Defects

- Genetic Counseling
- Prenatal Tests
 - Ultrasound
 - Amniocentesis
 - Chorionic villi sampling

Please answer these questions

- 1. What is the difference between a miscarriage and a stillbirth?
- 2. What is the cause of Down Syndrome? What is one factor that increases a baby's chances of this?
- 3. What are four causes of birth defects?
- 4. What are some ways to prevent prenatal problems?
- 5. What can be learned from an ultrasound, amniocentesis, and chorionic villi sampling?