

BIRTH DEFECTS DISCUSSION

THE KING AND THE SCRATCHED DIAMOND

Once there was a king who had a beautiful, large pure diamond. There was no other diamond like it in the world. One day, it became deeply scratched. The king told his best diamond cutters, "I'll promise you a great reward if you can remove the imperfection from my jewel." But they could not. The king was very upset.

Many months later, a man came to the king. He promised to make the diamond even more beautiful than it ever had been. Impressed by the man's confidence, the king consented. He watched as the man engraved an exquisite rosebud around the blemish and used the scratch to make its stem.

--A parable of the Preacher of Dubno from Jewish folklore.

This story can easily be equated to birth defects. Even though a child with a birth defect may not appear to be perfect, he/she still has great abilities and opportunities to apply himself/herself in life. Rather than emphasizing the problem, we must focus on the abilities of the person.

A birth defect is an abnormality that affects the structure or function of the body. Almost everyone is born with some type of imperfection. Most, such as a birthmark, are relatively minor. Some babies are born with more serious problems. These are referred to as birth defects.

There are three basic factors that influence birth defects:

1. Heredity
2. Environment
3. A combination of heredity and the environment

The causes of birth defects differ greatly. Some are inherited from one or both parents. Some are caused by controllable factors in the environment.

Prenatal development occurs very rapidly. In only a few weeks the baby develops all of its body systems needed to survive and live normally. During this time, the fetus is totally dependent on the mother to provide nourishment and food.

Environmental factors include:

1. Diet
2. Diseases or infections of the mother
3. Harmful substances ingested by the mother
4. Exposure to outside hazards such as radiation

DETECTING BIRTH DEFECTS

There are three very useful tools in detecting birth defects before birth.

1. **AMNIOCENTESIS:** This is not a routine procedure. A long needle is inserted through the mother's abdominal wall and into the uterus. A small amount of amniotic fluid is removed. The amniotic fluid contains cells from the fetus. These cells are used to examine the chromosomes for possible defects. It takes 3-4 weeks to get the results. This procedure involves risk of infection and the risk of causing the body to abort the fetus and is, therefore, used only when there is a valid medical reason. The most common use is to detect Down's Syndrome.
2. **ULTRASOUND:** An imaging procedure in which sound waves are bounced off of the fetus to produce a picture. It can show development of the fetus and can detect certain defects involving proper development of organs and of the skeleton. Ultrasound is frequently used to verify the due date of the baby or the presence of multiple fetuses. It is sometimes referred to as a sonogram.
3. **CHORIONIC VILLUS BIOPSY:** This procedure is done only under extremely serious conditions. It is similar to amniocentesis but can be done earlier in pregnancy with quicker results. The villi are minute pieces of tissue that protrude from the chorion--the membrane containing the amniotic fluid and encasing the fetus. Ultrasound is used to guide a catheter through the vagina and into the uterus. Samples of the villi are snipped or suctioned off for analysis.

If one of these tests indicates that a developing child has problems, the couple can then confer with their doctor in deciding what to do. Due to new technology, some surgical procedures, while the baby is still inside of the uterus, are available in some circumstances.