

Sickle Cell Anemia (Hb SS Disease)

What is Sickle Cell Anemia?

Sickle cell anemia is a disorder that affects the shape and function of the red blood cell. This disorder produces abnormal hemoglobin that causes the red blood cells to change from a soft, round shape to a hard, crescent or “sickle” shape when they give off oxygen. Sickle cell anemia is inherited. It is present at birth.

What type of problems occurs with Sickle Cell Anemia?

A baby born with this condition may have many symptoms that usually begin after 6 months of age. The most common symptoms are anemia (a low number of red blood cells), infection, and periods of pain. Anemia can lead to shortness of breath, tiredness, and a delay in growth and development in children. Early diagnosis and treatment will help prevent some of these problems.

What is the chance my baby will have Sickle Cell Anemia?

This condition occurs in about 1 in 500 African-American births and 1 in every 1,000 to 1,400 Hispanic-American births. In the general population, this condition occurs in about 1 in every 5000 births. Babies born with this condition have a changed gene from each parent. A person who has one changed gene is called a carrier. A person who is a carrier does not have symptoms. If both parents are carriers, either parent can pass on the changed gene to their baby. If both parents pass on the changed gene, the baby will have the condition. If both parents are carriers, for each pregnancy:

- There is a 25% chance that the baby will be born with this condition.
- There is a 50% chance that the baby will be a carrier for this condition.
- There is a 25% chance that the baby will not be born with this condition and will not be a carrier.

What is the treatment of Sickle Cell Anemia?

The treatment for this condition includes medications and keeping your baby’s shots up to date. You will be referred to a doctor who specializes in blood disorders. Your baby’s doctor will help make sure that your baby gets the right diet and medical care.

Where in Virginia can I take my baby for care?

There are four treatment centers in Virginia. The names of the centers and the pediatric hematologist are listed below.

- Virginia Commonwealth University, Richmond, Virginia, Dr. E. Clifton Russell
- Children’s Hospital of the King’s Daughters, Norfolk, Virginia, Dr. William C. Owen
- University of Virginia, Charlottesville, Virginia, Dr. Peter E. Waldron
- Pediatric Hematology and Oncology of Northern Virginia, Dr. Jay B. Greenberg

If you want to know more about this condition, please contact Virginia Newborn Screening Services, Virginia Department of Health. The telephone number is 804-864-7714 or 804-864-7715. The Web site is <http://www.vahealth.org/genetics>.



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