

# SICKLE CELL ANEMIA

SICKLE CELL ANEMIA, A TYPE OF SICKLE CELL DISEASE, is an inherited blood disorder, characterized primarily by pain and chronic anemia that can damage the tissues and vital organs, such as the lungs, spleen, kidneys and liver. People who have sickle cell anemia are born with it. It is a lifelong disease. There is currently no universal cure for sickle cell anemia or sickle cell disease.

Individuals with sickle cell anemia make abnormally shaped red blood cells. Normal red blood cells are smooth and round, moving easily through blood vessels to carry oxygen to all parts of the body. In sickle cell anemia, the body produces red blood cells that are shaped like a sickle. These cells are hard and sticky and don't move easily through blood vessels. Instead, they tend to get stuck and block the flow of blood to the limbs and organs causing pain and damage.

**SICKLE CELL TRAIT** If you have sickle cell trait, you have inherited the gene for sickle cell disease. Sickle cell trait does not turn into sickle cell disease. However, if someone has sickle cell trait, and his partner has sickle cell trait, they may produce a child with sickle cell disease. There are about 2.5 million people in America with sickle cell trait.

**TRADITIONAL TREATMENTS** There is no cure for sickle cell anemia. Historically, bone marrow transplants have been used to provide cures and treatments for sickle cell anemia. But very few people can find a suitable donor for transplant. [Add more about why matching donors are difficult.] As a result, treatment for sickle cell anemia is usually aimed at avoiding crises, relieving symptoms and preventing complications. Basic treatment relies heavily on pain-killing drugs and oral and intravenous fluids to reduce pain and prevent complications.

**THE AFFLICTED** Sickle cell disease is a global health problem. It is particularly common among people whose ancestors come from Africa and Spanish-speaking regions. In the United States, the disease statistics are as follows:

- Sickle cell anemia affects about 72,000 people
- 95 % of the afflicted are African-American
- 1 in every 500 African-American births
- 1 in every 900 Hispanic American births
- 2.5 million people carry the sickle cell trait
- 1 in 12 African Americans carry the sickle cell trait
- 1 in 16 Hispanic carry the sickle cell trait

# 2.5

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America have the  
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## UMBILICAL CORD BLOOD TREATMENTS AND CURES

Promising treatments and research are taking place with umbilical cord blood, as well as research with gene therapy. In fact, umbilical cord blood is currently treating and curing people afflicted with sickle cell anemia all over the world. Doctors continually point to the potential of cord blood for providing cures, as well as the ease of matching donors with patients. [Add more about how matching from donors is much easier than bone marrow.] [Need more stats...how many treated...doctor quotes about the success and need for cord blood, etc.] [History on cord blood treatments...order?] In 1998, Emory University Hospital completed the world's first unrelated donor cord blood transplant in a child with sickle cell anemia. sickle cell trait.

the umbilical cure

the umbilical (cure)