

Genetics of Sickle Cell

Sickle Cell Trait and Sickle Cell Disease

What is sickle cell trait?

Sickle Cell Trait (AS) is an inherited condition which affects the hemoglobin in your red blood cells.

It is important to know if you have sickle cell trait. Sickle cell trait is inherited from your parents, like hair or eye color. If one parent has sickle cell trait, there is a 50% (1 in 2) chance with each pregnancy of having a child with sickle cell trait. Sickle cell trait rarely causes any health problems. Some people may develop health problems under certain conditions, such as:

- » Dehydration – from not drinking enough water
- » Low oxygen – from over-exertion
- » High altitudes – from low oxygen levels

How do you know if you have sickle cell trait or disease?

A simple blood test called a hemoglobin electrophoresis can determine your sickle cell status. Talk with your healthcare provider if you have more questions about sickle cell trait or want to be tested.

It is important to know if you have sickle cell trait (are a sickle cell carrier) before you decide to have children.

Contact us for more information:

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Who can have sickle cell disease and sickle cell trait?

- » It is estimated that SCD affects 90,000 to 100,000 people in the United States, mainly Blacks or African Americans.
- » The disease occurs in about 1 of every 500 Black or African American births and in about 1 of every 36,000 Hispanic American births.
- » SCD affects millions of people throughout the world and is particularly common among those whose ancestors come from sub-Saharan Africa, regions in the Western Hemisphere (South America, the Caribbean, and Central America), Saudi Arabia, India, and Mediterranean countries such as Turkey, Greece, and Italy.
- » About 1 of every 12 African Americans has sickle cell trait and about 1 of every 100 Hispanics has sickle cell trait.
- » It is possible for a person of any race or nationality to have sickle cell trait.

