

# Sickle Cell Trait Fact Sheet

## What is sickle cell trait?

**Sickle cell trait is not a disease.** It does not develop into sickle cell disease. It is not contagious. People with sickle cell trait are not sick. They can lead normal lives and have minimal problems due to sickle cell trait.

People with sickle cell trait have a form of hemoglobin that is different from the usual. Hemoglobin is the part of the red blood cell that carries oxygen throughout the body. People with sickle cell trait inherit a normal hemoglobin gene (A) from one parent and a sickle hemoglobin gene (S) from the other parent. Therefore, they have both hemoglobin A and hemoglobin S. Individuals with the trait are also known as sickle cell carriers. If sickle cell trait is found, education and counseling regarding the trait are important, because the sickle gene can be passed on to a carrier's child.

*The most important aspect of identifying people with sickle cell trait is informing them of their risk of having a child affected by sickle cell anemia.*

## Is sickle cell trait common in Arkansas?

One out of twelve African Americans has sickle cell trait, which is much more common than sickle cell disease (1 in every 400 African Americans). About 650 babies are born each year in Arkansas with sickle cell trait. This means 1 of about every 60 babies born in Arkansas has sickle cell trait.

Sickle cell trait is common in the African American population. However, it does occur in other racial groups, including the white population.

## How does a child get sickle cell trait?

Sickle cell trait is inherited. If two people with sickle cell trait have a child, there is a 50% risk that the child will have sickle cell trait (Hemoglobin AS). There is also a 25% chance that the child will have sickle cell disease (Hemoglobin SS). These risks are true for each pregnancy.

If one parent has sickle cell trait and the other has normal hemoglobin, it is unlikely that any of their children will have sickle cell disease. However, there is a 50% chance with each pregnancy that the child will have sickle cell trait.

## What other problems might sickle cell trait cause?

For a few people with sickle cell trait, painful episodes have occurred when they were at high altitudes (flying in unpressurized planes) or during military basic training. Occasionally, some trait carriers notice blood in their urine. If these symptoms occur, the person's physician should be notified. However, most people with sickle trait have no symptoms.