



For Parents of Babies with Sickle Cell Trait or another Hemoglobin Trait



For parents of babies with a hemoglobin trait

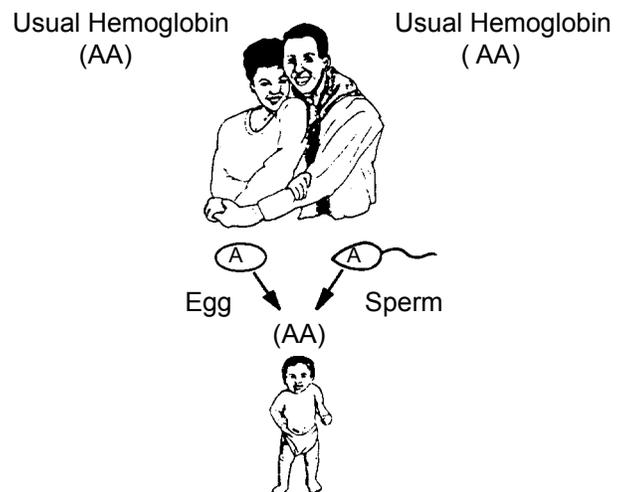
You have just learned that your baby has a hemoglobin trait, either hemoglobin S (sickle) trait, hemoglobin C trait, or hemoglobin D trait. This means that your baby's red blood cells have a different kind of hemoglobin along with the usual kind. It is not a disease. It cannot cause your baby to become ill.



(1)

What is hemoglobin?

Hemoglobin is found in the red blood cells of all people. It gives blood its red color and carries oxygen to all parts of the body. There are many types of hemoglobin. They are passed down in the family from parent to child in the genes. Genes are the tiny bits of information found in the father's sperm and the mother's egg. Together this information forms a pattern for a new life. Most people have two genes for hemoglobin A. This means that they received one gene for hemoglobin A from each parent and make red blood cells with hemoglobin A only.



Babies get one gene for hemoglobin type from each parent. This baby has the usual hemoglobin.

(2)

What is a hemoglobin trait?

A hemoglobin trait occurs when a baby receives a gene for hemoglobin A from one parent and a gene for a different hemoglobin type (S, C, or D) from the other parent. The baby makes red blood cells containing both hemoglobin A and the different hemoglobin. This is **not** a disease.

Hemoglobin S, C, and D are more often found in people whose families came from Africa, Mexico, Central America, and in some cases, India, the Middle East, and parts of Europe and Asia. However, **anyone can have red blood cells with hemoglobin S, C, or D.** In addition, there are other hemoglobin traits such as beta thalassemia trait and other less common traits.

(3)

If our baby is healthy, why should we be tested?

There are some combinations of hemoglobin types that can cause serious health problems. Blood tests can tell you your hemoglobin type. If one parent has only hemoglobin A and the other has a different hemoglobin type, future children will not have a hemoglobin disease. However, if both parents have a hemoglobin trait, a future child may have a hemoglobin disease, such as sickle cell disease.

What is sickle cell disease?

Sickle cell disease occurs when a person receives one gene for sickle (S) hemoglobin from one parent and a sickle (S), C, D, or beta thalassemia gene from the other parent. This disease can cause serious long term health problems.

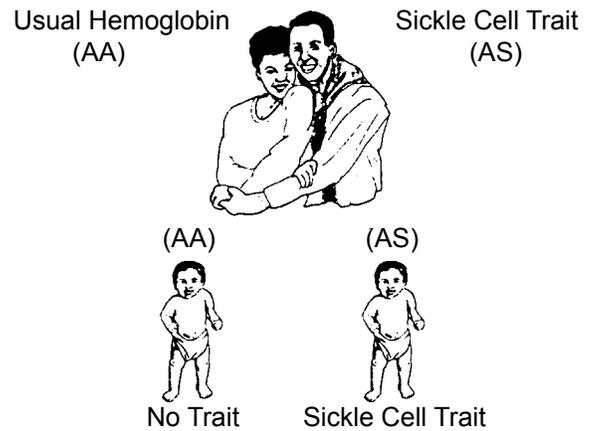
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Remember - your baby is healthy

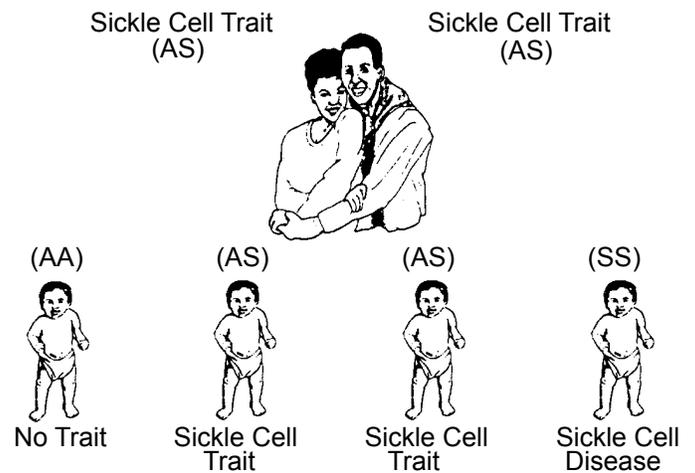
Your baby has a hemoglobin trait. It is **not** a disease. It will never change into a disease.

For more information:

- talk with your doctor
- call the **Newborn Screening Sickle Cell Trait Counselor** toll-free: **1 (866) 954-2229**
- **Kaiser members:** call your nearest Kaiser Genetics Department (see letter for phone numbers)



If one parent has usual hemoglobin and the other parent has sickle cell trait, they have a 50% chance with each pregnancy of having a baby with sickle cell trait.



If both parents have sickle cell trait, they have a 25% chance (1 in 4) with each pregnancy of having a baby with sickle cell disease.

To see a Sickle Cell Trait Counselor in person call:

- In Culver City or Rancho Cucamonga call: **Sickle Cell Disease Foundation of California** (310) 693-0247
- In Oakland call: **Children's Hospital & Research Center Oakland** (510) 428-3452



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