

If only the mother or the father has the sickle cell trait, then there is a 1 in 2 chance for each child to inherit the trait. To have a baby with sickle cell disease, both the mother and the father must have the trait, and the child must inherit the trait from both parents. A mother and father who both have sickle cell trait, have a 1 in 4 chance to have a child with sickle cell disease, a 1 in 2 chance to have a child who has the trait, and a 1 in 4 chance to have a child who does not have the trait.

Testing for the sickle cell trait will give you information about your chance to have a child with sickle cell disease. Your blood test for the sickle cell trait will also provide information for your family members (brothers, sisters, parents, aunts, uncles) about their chance to have the sickle cell trait.

Where can I get more information about hemoglobin S trait?

You can get more information about hemoglobin S trait from your doctor, your baby's doctor or a genetic counselor.

There is also additional information on our website: www.wadsworth.org/newborn

We can be contacted at **518-473-7552**, Monday through Friday, 8 am until 4:45 pm. Or via e-mail at

nbsinfo@health.state.ny.us

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Newborn Screening

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SICKLE CELL TRAIT

The Family Connection

Information for Parents and Families



A blood test showed that your baby has the sickle cell trait. Another way to say this is that your baby is a carrier of sickle cell disease.

YOUR BABY DOES NOT HAVE SICKLE CELL DISEASE.

What is the sickle cell trait?

Red blood cells bring oxygen from the lungs to every part of the body. Oxygen is stored in the red blood cell by hemoglobin (Hgb). There are several different types of hemoglobin. Normal hemoglobin is called Hgb A and the sickling type is called Hgb S. A person with sickle cell trait has both Hgb A and Hgb S. A person with sickle cell disease has no Hgb A. Instead, they only have Hgb S or a combination of other hemoglobins, such as Hgb C. In a person with sickle cell disease, the red blood cells have an abnormal shape.



Hemoglobin A only
No disease



Sickle Cell Trait
No disease
Hemoglobin A
and Hemoglobin S



Sickle Cell Disease
Hemoglobin S only

Will the sickle cell trait affect my baby's health?

The sickle cell trait does not usually cause health problems. Most people with sickle cell trait go through life without knowing they have it. In very rare instances, the blood cells in people with sickle cell trait can take on a sickle shape during times of extreme stress on their body (deep sea diving, mountain climbing, surgery) and then they may have symptoms.

When was my baby tested for sickle cell trait?

As part of the Newborn Screening Program, all babies born in New York State have testing for more than 40 disorders on a small amount of blood taken from their heel shortly after birth. This testing finds babies who have sickle cell trait.

How common is sickle cell trait?

About 1 in 10 African Americans have the sickle cell trait. Sickle cell trait is also common in persons from the Caribbean and parts of Central and South America. The trait is not as common, but can also be found in people of other ethnic groups including those of Mediterranean, Middle Eastern, and Indian ancestry.

What are the symptoms of sickle cell disease?

Sickle cell disease is a serious medical condition. People with sickle cell disease usually have chronic pain and problems with their liver and spleen. They also have a shortage of red blood cells, known as anemia, which can cause them to be pale, short of breath and tire easily. There is also a risk for severe infections.

What does this test result mean for me and my family members?

At least the mother or father of a baby with sickle cell trait also has the trait. It is important that you are both tested and have the option to review your results with your doctor or a genetic counselor.

Sickle cell trait is inherited and there is nothing the mother or father could have done to cause or prevent sickle cell trait in their baby.

