

NEW HAMPSHIRE NEWBORN SCREENING PROGRAM

Your Baby Has Sickle Cell Trait *For Parents*

All infants born in New Hampshire are screened for a panel of conditions at birth. A small amount of blood was collected from your baby's heel and sent to the laboratory for testing. One of the tests checked the hemoglobin in your baby's blood.

This test showed that your baby has sickle cell trait. **Sickle cell trait is very common and does not cause health problems. Sickle cell trait will never develop to sickle cell disease.**

What is hemoglobin?

Hemoglobin is the part of the blood that carries oxygen to all parts of the body. There are different types of hemoglobin. The type of hemoglobin we have is determined from genes that we inherit from our parents. Genes are the instructions for how our body develops and functions. We have two copies of each gene; one copy is inherited from our mother in the egg and one copy is inherited from our father in the sperm.

What is sickle cell trait?

The normal, and most common, type of hemoglobin is called hemoglobin A. Sickle cell trait, also called hemoglobin S trait, is when a baby inherited one gene for hemoglobin A from one parent and one gene for hemoglobin S from the other parent. People with sickle cell trait are not sick.

Why do I need to know my baby has sickle cell trait?

Although people with sickle cell trait do not have any health problems, they should be aware that because their blood contains a small amount of hemoglobin S they should be extra careful when oxygen levels are low, such as flying in an unpressurized aircraft above 10 000 feet and deep sea diving (flying in normal airplanes is not harmful). Also trait carriers should avoid getting dehydrated and extreme fatigue during strenuous physical activity over a prolonged period of time, such as basic training for the military.

This information can also be important for family members that are planning to have children. It is possible that future children in your family or other family members may be at risk for sickle cell disease. If both parents have sickle cell trait there is a 1 in 4 (25%) chance in each pregnancy that the baby may have sickle cell disease.

What is sickle cell disease?

Your baby does not have sickle cell disease, but future children or other family members could have the condition. When a person has sickle cell disease they do not have any genes for hemoglobin A. Instead they inherit two hemoglobin S genes, one from each parent. Sickle cell disease has medical complications and requires treatment.

What do I do now?

You and your partner may want to consider blood tests to look at your hemoglobin type. This testing would help to provide you with information about your chances to have a future child with sickle cell disease. A genetic counselor can order the necessary blood tests and help to answer any questions you may have. If you are interested in seeing a genetic counselor your baby's pediatrician can help schedule the appointment for you.

It is also important for your baby to know that he/she has sickle cell trait when he/she is older and wants to have children. His/her partner may want to have testing to find out more about their chances to have a child with sickle cell disease.

*We also recommend that you share this information with the rest of the family.
They also may be interested in having their blood tested.*