

NEW HAMPSHIRE NEWBORN SCREENING PROGRAM

Your Baby Has Hemoglobin C 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 looked at the hemoglobin in your baby's blood.

Your baby's test found that your baby has hemoglobin C trait. **Hemoglobin C trait is very common and does not cause health problems. Hemoglobin C trait will never develop to 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 hemoglobin C trait?

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

Why do I need to know my baby has hemoglobin C trait?

This information can 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 a hemoglobin disease.

If both parents have hemoglobin C trait, there is a 1 in 4 (25%) chance with each pregnancy that the child would have hemoglobin C disease. People with hemoglobin C disease usually do not have any serious health problems, but could have mild to moderate anemia and should be followed by a doctor.

If one parent has hemoglobin C trait and the other parent has sickle cell trait there is a 25% chance with each pregnancy that they may have a child with hemoglobin sickle C disease.

What is hemoglobin sickle c disease?

Your baby does not have hemoglobin sickle C disease, but future children or other family members could have the condition. Hemoglobin sickle c disease is a form of sickle cell disease. When a person has hemoglobin sickle C disease they do not have any genes for hemoglobin A. Instead they have one gene for hemoglobin C and one gene for hemoglobin S. This 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 a hemoglobin 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 hemoglobin C 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 a hemoglobin 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.*