

# NEW HAMPSHIRE NEWBORN SCREENING PROGRAM

## Your Baby Has Hemoglobin D *or* Hemoglobin G 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 either hemoglobin D trait or hemoglobin G trait. The newborn screening test cannot tell the difference between hemoglobin D and hemoglobin G so we do not know which one your baby has. **Both hemoglobin D trait and hemoglobin G trait are common and do not cause health problems. Hemoglobin D trait and hemoglobin G 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 are hemoglobin D trait and hemoglobin G trait?

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

### Why do I need to know my baby has hemoglobin D trait or hemoglobin G trait?

This information can be important for family members that are planning to have children. There are many different types of hemoglobin. Some hemoglobin types can cause a more serious disease. It is possible that future children in your family or other family members may be at risk for a hemoglobin disease.

### 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. Testing parents may also help to determine if your child had hemoglobin D trait or hemoglobin G trait. 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 D trait or hemoglobin G 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.*