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Beta Thalassemia Trait

Will beta thalassemia trait make my baby sick?
No. Beta thalassemia trait, beta thal trait for short, is not an illness. Your baby will not have to get special medical care because of beta thal trait.

Beta thal trait may be diagnosed when a child has a routine complete blood count (CBC). The CBC may show a low hemoglobin and low MCV. Another blood test called a hemoglobin electrophoresis, will help to make the final diagnosis. A low hemoglobin and low MCV can also be caused by iron deficiency.

Before your baby takes iron, she should have her blood iron level checked. If her iron level is low, it will be all right to give her iron. A child with B-thal trait, low hemoglobin and normal iron levels, does not require iron treatment.

What is thalassemia?
Thalassemia is a disease of red blood cells. People with thalassemia do not make enough hemoglobin. This results in low hemoglobin (anemia) and red blood cells that are smaller in size and paler than normal.

There are mild, moderate, and severe forms of thalassemia. Beta thal trait is a mild form of thalassemia. Beta thal trait is found equally in both boys and girls.

How did my baby get beta-thal trait?
She inherited beta thal trait the same way she got the color of her eyes, the shape of her nose and the texture of her hair. Genes are the building blocks that determine the make-up of your baby. She got it from the genes that her mother and father passed on to her.

If a baby got one beta thalassemia gene from one parent and another beta thalassemia gene from the other parent, she would have severe beta thalassemia. This is a serious condition and requires special medical care.

Sometimes a baby will get a beta thalassemia gene from one parent and a gene for another hemoglobin disorder from the other parent. For example, if a baby gets the beta thalassemia gene from one parent and the sickle cell gene from the other, the baby will have a form of sickle cell disease called S-beta thalassemia, which requires special medical attention.

What exactly is hemoglobin?
Hemoglobin is inside the red blood cells. It helps them carry oxygen from the air in our lungs to all parts of the body. Hemoglobin also gives blood its deep red color. Hemoglobin is made up of two parts: Proteins called globin, and iron chemicals called heme: (Heme + globin = Hemoglobin)

What is beta thalassemia?
The usual hemoglobin in our red blood cells is hemoglobin A. Hemoglobin A is made of two types of globin: alpha and beta. In beta thalassemia, not enough beta globin is made in the red blood cells.

Beta thalassemia trait - what does that really mean?
Beta thal trait, sometimes called beta thalassemia minor, is a mild form of beta thalassemia. In beta thalassemia trait, there is enough beta globin for normal health. Your baby may have a slightly lower hemoglobin (anemia). Her red blood cells might be a little small in size and look paler. None of these things will make her sick or require special medical attention. Beta thalassemia trait is more common in people of Mediterranean, Asian, Middle Eastern, or African origins.

Should we, the parents, take a blood test?
Before you have your next baby, we suggest that you and your partner get special blood tests. We all have two sets of genes for hemoglobin. One set is passed on to the baby from each parent.

Only if both you and your partner are tested, can you know exactly what kind of hemoglobin condition your next child could have. Look carefully at the inheritance pattern for the possibilities of having a baby with severe beta thalassemia.