

 Hemoglobin E/beta thalassemia disease is a lifelong illness that can cause serious health problems. People with this disease need medical treatment.

 If one (1) parent has hemoglobin E trait and the other parent has beta thalassemia trait, there is a 25 percent (1 in 4) chance with each pregnancy of having a child with hemoglobin E/beta thalassemia disease.

What if one (1) parent has and the other parent has beta thalassemia trait?

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#### **FACT SHEET**

### Hemoglobin E Trait



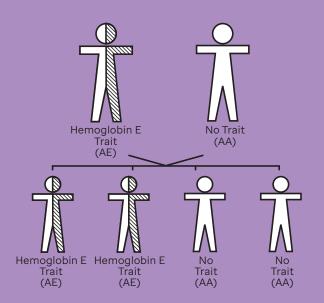
Hematology

#### What is hemoglobin E trait?

- Hemoglobin E trait is a condition that affects the red blood cells.
- Your red blood cells contain hemoglobin, which carries oxygen from the lungs to all parts of your body. People with normal hemoglobin have only one (1) type, hemoglobin A.
- People with hemoglobin E trait have hemoglobin A and hemoglobin E in their red blood cells. Hemoglobin E is not normal.
- People with hemoglobin E trait usually do not have enough hemoglobin.

#### Who can have hemoglobin E trait?

 Hemoglobin E trait is very common in people whose ancestors came from Asia. It can also be found in people whose ancestors came from Africa, India, the Middle East, or the Mediterranean region. It is possible for a person of any nationality to have hemoglobin E trait.



# Will people with hemoglobin E trait get sick?

• If you have hemoglobin E trait, you will not get hemoglobin E disease or hemoglobin E/beta thalassemia disease later in life.

## Why should I know if I have hemoglobin E trait?

- You can pass on hemoglobin E trait to your children, like you would hair or eye color.
- If one (1) parent has hemoglobin E trait and the other parent has normal hemoglobin A, there is a 50 percent (1 in 2) chance with each pregnancy of having a child with hemoglobin E trait.
- Normally, people with hemoglobin E trait do not have any health problems caused by the trait.

#### What if both parents have hemoglobin E trait?

- If both parents have hemoglobin E trait, there is a 25 percent (1 in 4) chance with each pregnancy of having a child with hemoglobin E disease.
- Many people with hemoglobin E disease do not have any health problems caused by the disease, but some people need medical treatment.
- Hemoglobin E disease can cause mild anemia. This means the body does not make a normal amount of red blood cells. Hemoglobin E disease also causes the body to make smaller red blood cells.

Hemoglobin Hemoglobin E Trait (AE)

Hemoglobin Hemoglobin Hemoglobin No Trait E Disease E Trait E Trait (AA) (AE)

This document is not intended to replace counseling by a trained health care professional or genetic counselor. Questions about personal health concerns or treatment should be discussed with your doctor. For more information about sickle cell disease, visit our Web site at www.stjude.org/sicklecell.

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