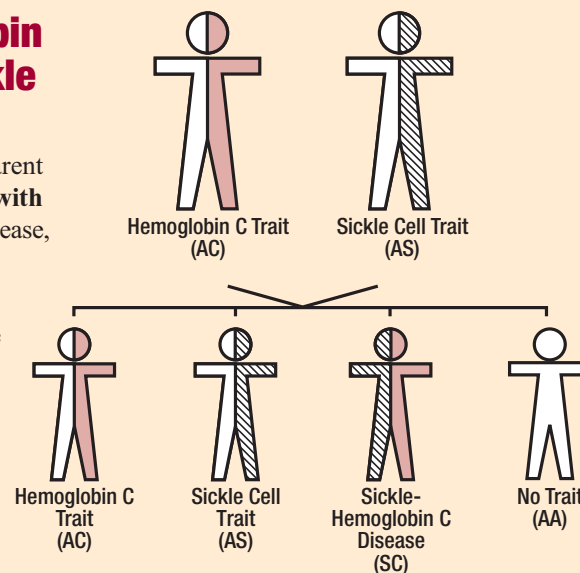
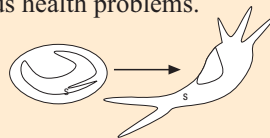


01/10 — Biomedical Communications

What if one (1) parent has hemoglobin C trait and the other parent has sickle cell trait?

- If one (1) parent has hemoglobin C trait and the other parent has sickle cell trait, there is a 25 percent (1 in 4) chance **with each pregnancy** of having a child with hemoglobin SC disease, also called sickle hemoglobin C **disease**.
- Normal red blood cells are round. A person with sickle hemoglobin C disease has red blood cells that can sickle or become banana shaped. Under certain conditions, these cells can keep blood from circulating normally.
- Sickle hemoglobin C disease is a lifelong illness that can cause serious health problems. People with the disease need medical treatment.



Fact Sheet

Hemoglobin C Trait

What is hemoglobin C trait?

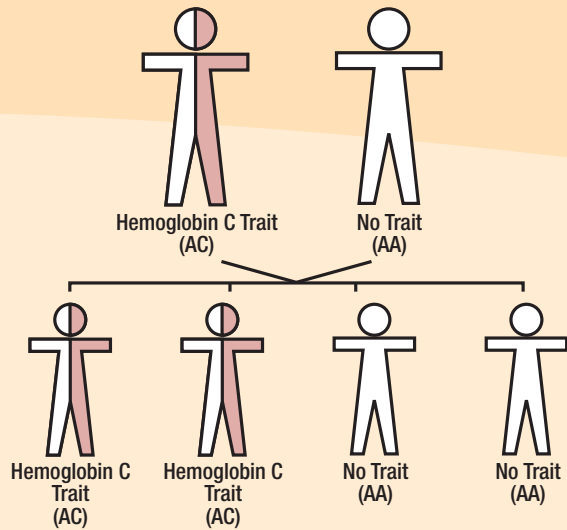
- Hemoglobin C trait is a condition that affects the red blood cells.
- Your red blood cells contain hemoglobin, which carries oxygen from the lungs to all parts of your body. People with normal hemoglobin have only one (1) type, hemoglobin A.
- People with hemoglobin C trait have hemoglobin A and hemoglobin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

Who can have hemoglobin C trait?

- About one (1) out of every 40 African-Americans has hemoglobin C trait. This trait affects mostly African-Americans and people who have African ancestors. It is possible for a person of any nationality to have hemoglobin C trait.

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Will people with hemoglobin C trait get sick?

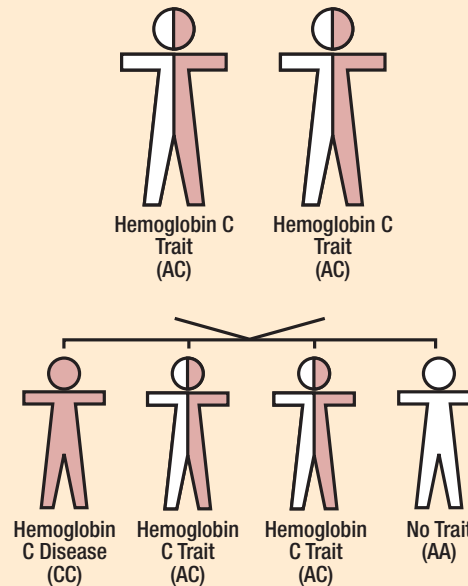
- No, people with hemoglobin C trait will not get sick from the trait. If you have hemoglobin C trait, you will not get hemoglobin C disease or sickle cell disease later in life.

Why should I know if I have hemoglobin C trait?

- You can pass on hemoglobin C trait to your children, like you would hair color or eye color.
- If one (1) parent has hemoglobin C 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 C **trait**.
- Normally, people with hemoglobin C trait do not have any health problems caused by the trait

What if both parents have hemoglobin C trait?

- If both parents have hemoglobin C trait, there is a 25 percent (1 in 4) chance **with each pregnancy** of having a child with hemoglobin C **disease**.
- Most people with hemoglobin C disease do not have any health problems caused by the disease.
- In some cases, hemoglobin C disease can cause mild anemia. This means the body does not make a normal amount of red blood cells. Hemoglobin C disease can also cause gallstones and a large spleen in some cases.



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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