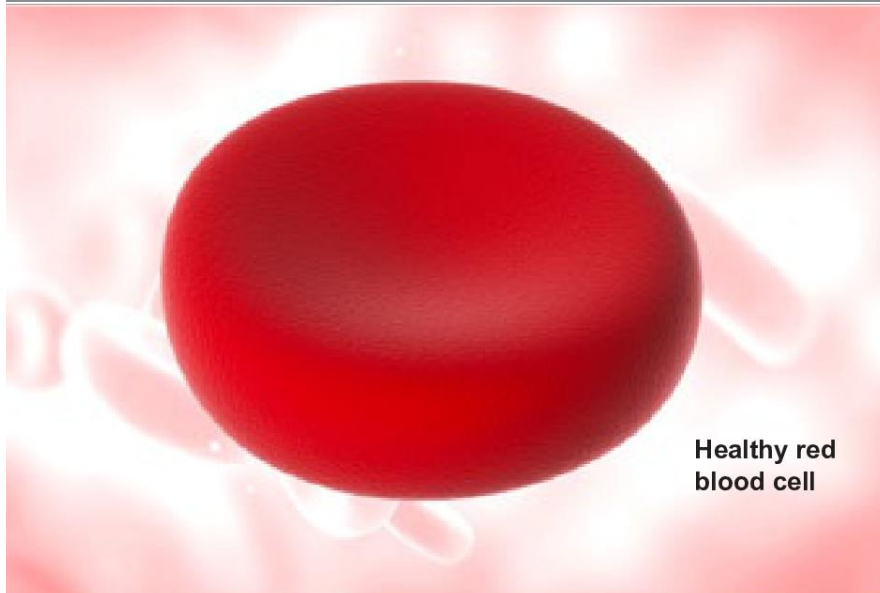
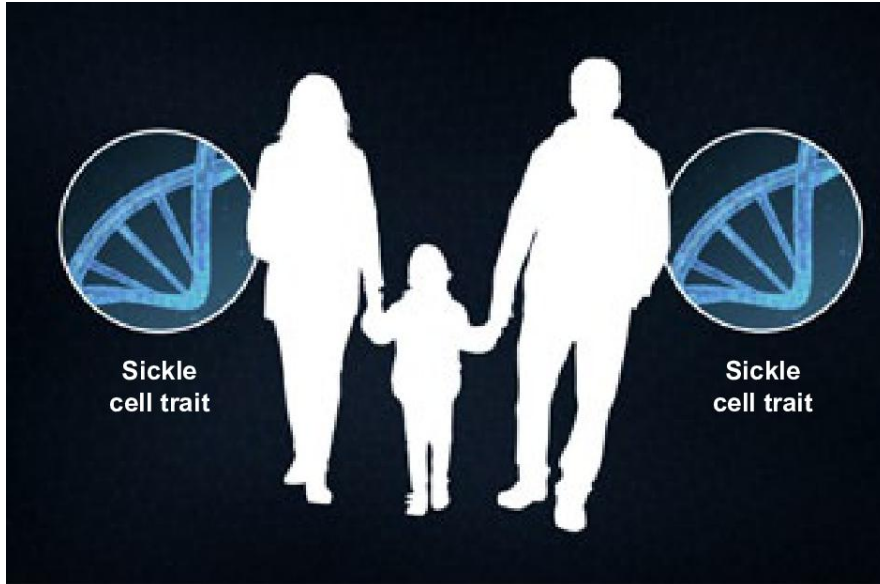




## Sickle Cell Anemia



Healthy red blood cell



Sickle cells

### Overview

This is an inherited blood disorder in which the red blood cells are abnormally shaped. Sickle cell anemia can prevent tissues in the body from receiving enough oxygen. It can cause a wide range of complications.

### Causes

Sickle cell anemia occurs when a person inherits two copies of the sickle cell gene - one copy from each parent. A person who inherits only one copy of the gene is said to have sickle cell trait. Sickle cell trait does not cause problems, but the person can still pass the gene on to children. Sickle cell trait can actually provide increased resistance to malaria. But two copies of the gene cause the red blood cells, which are normally soft and disc-shaped, to become hard and sticky and crescent-shaped. The abnormal cells can stick together and form clumps. These cells have trouble passing through the blood vessels.

### Risk Factors

Sickle cell disease is common in people from tropical or sub-tropical climates. It is most common in people from West and Central Africa.

### Symptoms

Symptoms of sickle cell disease can include anemia, episodes of pain in the chest, abdomen and joints, swelling in the hands and feet, frequent infections, jaundice, delayed growth, and vision problems.

### Treatment

Treatment options include medications, blood transfusions, and supplemental oxygen. In severe cases, a blood and marrow stem cell transplant can be performed. The procedure has risks, but it may offer a cure for a small number of people.