What is Sickle Cell Disease?
Sickle Cell Disease is caused by an abnormal protein in red blood cells. A group of inherited red blood cell disorders, sickle cell is most commonly found in the United States in black people or people with African ancestry. According to the National Heart, Lung, and Blood Institute, about 1 in 13 black or African American babies is born with a sickle cell trait, while about 1 in every 365 is born with sickle cell disease.

Sickle Cell Disease is also called:
- Sickle Cell Anemia
- Hemoglobin S
- SS disease
- Sickling disorder due to hemoglobin S

What Causes Sickle Cell Disease?
Sickle Cell Disease is caused by a mutation in the gene that helps make hemoglobin. Hemoglobin in red blood cells takes oxygen in the lungs and through the arteries carries it to all the cells in the body's tissues. Sickle hemoglobin carries less oxygen throughout the body to the tissues. This causes rigid nonliquid protein strands to form within the red blood cell giving it a sickled shape, instead of the normal round shape of a red blood cell.

A normal red blood cell can live 90-120 days, while a sickle cell only lives 10-20. Since it is a shorter period of time, the body might have trouble keeping up with making new red blood cells. This can cause lower red blood cell count, and a condition called anemia.

How do you treat Sickle Cell Disease?
The only current cure for sickle cell disease is a blood and bone marrow transplant. Some other treatments to manage complications include:

- **Penicillin**: For children with sickle cell disease taking penicillin two times a day reduces the chance of a severe infection caused by sickle cell.
- **Hydroxyurea**: Increases the hemoglobin F in the blood that protects against hemoglobin S. This reduces or prevents sickle cell complications.
- **Transfusions**: There are three types of transfusions that can treat and prevent sickle cell complications. These include acute transfusions, red blood cell transfusions, and regular or ongoing blood transfusions.

If you need help finding a doctor please call Member Services at 1-866-899-4828

Source: [www.nhlbi.nih.gov/health-topics/sickle-cell-disease](http://www.nhlbi.nih.gov/health-topics/sickle-cell-disease)
A pregnancy with sickle cell disease is more likely to have health complications. Some of these complications include:

- More severe pain episodes
- More often pain episodes
- Infection
- Vision Problems

Having Sickle Cell Disease can also increase your risk of having a miscarriage, premature birth (birth before 37 weeks), and having a baby with low birth weight.

**Passing the Sickle Cell Trait or Sickle Cell Disease**

If you and your partner both have Sickle Cell Disease your baby will have Sickle Cell Disease. If you and your partner both have the Sickle Cell Trait the chances of your baby having the Sickle Cell Trait or Sickle Cell Disease is:

- 75% chance your baby won’t have Sickle Cell Disease
- 50% chance your baby will have the Sickle Cell Trait
- 25% chance your baby will have Sickle Cell Disease
- 25% chance your baby won’t have the Sickle Cell Disease or Sickle Cell Trait

A genetic counselor is a person that is trained on how genes run in families. A genetic counselor can help you understand your likelihood of passing the sickle cell trait or disease to your baby.

**Treatment of Sickle Cell Disease During Pregnancy**

Talk to your doctor if you have Sickle Cell Disease and are pregnant or planning to become pregnant. Some medicines, such as Hydroxyurea, are not recommended during pregnancy.