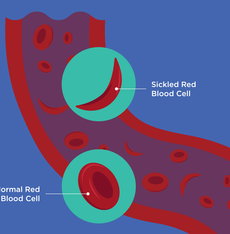
8 SICKLE CELL DISEASE FACTS

1 What is Sickle Cell Disease?

Sickle cell disease is a lifelong, inherited blood disorder that impacts red blood cells. Children with sickle cell disease have an abnormal type of hemoglobin that causes blood cells to become crescent-shaped. These misshapen cells are more fragile and have difficulty passing through the body's blood vessels. This means there are less cells to carry around oxygen and tissues throughout the body are damaged.



2 What are the symptoms?

Sickle cell disease can cause problems all over the body. Because most patients with sickle cell have anemia, they may have decreased energy. They may also develop jaundice and/or gallstones from the broken red blood cells. Patients may experience symptoms due to sickle-shaped cells reducing the flow of blood through a person's blood vessels.

3 Who is most at risk?

While a child of any race or nationality can be born with sickle cell, it occurs most often among African-Americans.

1 OUT OF 365
African-American births

1 OUT OF 16,300
Hispanic-American births

4 How is sickle cell diagnosed?

Early diagnosis is key to the success of ongoing management of sickle cell disease. Physicians use a blood test to confirm or rule out the presence of sickle cell disease or sickle cell trait. Testing is part of mandatory newborn screening.

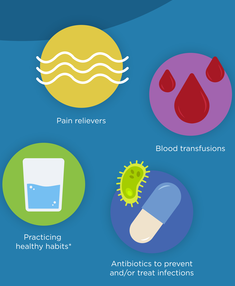
5 Is there a cure?

Currently, the only cure for sickle cell disease is **stem cell transplantation**. This is when healthy blood stem cells are transplanted into the patient's body, replacing the bone marrow with blood cells that make normal hemoglobin instead of sickle hemoglobin.

New gene therapy approaches also allow the patient's own bone marrow cells to be modified to make normal hemoglobin and then are transplanted back into their body.

6 What are common treaments?

Treatment for sickle cell disease varies greatly and depends on the severity of symptoms. Ongoing treatment plans often involve:



* Healthy habits include drinking lots of water, washing hands properly, and avoiding things that trigger sickling like smoking and exposure to cold temperatures

7 Are there possible medications?

Depending on your symptoms, your doctor may recommend:

L-glutamine oral powder (Endari)
Helps lessen pain and fatigue

Crizanlizumab (Adakveo)
Can help reduce pain

Hydroxyurea
Stimulates production of fetal hemoglobin and may decrease painful episodes

Voxelotor (Oxbryta)
Helps prevent red blood cells from sickling and return to a normal shape

8 Why choose Comer Children's?

A multi-disciplinary team of experts:
Our hematologists, nurses and stem cell specialists work together seamlessly

At the forefront of sickle cell research:
Our Comer Children's physician-scientists are developing new prevention therapies and treatments

A comprehensive approach:
We also offer counseling and support from psychologists, social workers and child life providers

AT THE FOREFRONT OF Kids MEDICINE®
UChicago Medicine
Comer Children's