THINGS YOU SHOULD KNOW ABOUT SICKLE CELL ANEMIA

In the Clinic
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What is sickle cell anemia?

- Sickle cell anemia is an inherited blood disorder.
- Red blood cells are crescent- or sickle-shaped, rigid, and sticky and don't last as long as normal, round, flexible ones.
- A person with the disorder lacks enough healthy red blood cells to carry a full supply of oxygen throughout the body.

Who gets sickle cell anemia?

- Sickle cell anemia occurs when a child inherits a defective form of the hemoglobin gene that causes sickle cell anemia from both parents and is more common among people of African, Mediterranean, Middle Eastern, or Indian ancestry.

How is it diagnosed?

- Your doctor will order a blood test that checks for hemoglobin S, which is the defective form of hemoglobin underlying sickle cell anemia.
- The test is now routinely performed on newborn babies at the hospital.
- Diagnosis can be made before birth using amniotic fluid or tissue from the placenta.

What are common symptoms and complications?

- Chronic fatigue from anemia.
- Pain, swelling, organ damage, and stroke if cells accumulate and block blood flow.
- Frequent infections if the spleen, an organ that fights infection, is damaged.
- Chest pain, fever, and difficulty breathing, which are caused by a lung infection or by sickle cells blocking blood vessels in the lungs.
- Yellowing skin and eyes (jaundice), if the liver is overwhelmed by the rapid breakdown of red blood cells.

What is sickle cell crisis?

- Sickle cell crisis is sudden pain occurring throughout the body.
- The pain can affect bones, joints, the lungs, and the abdomen.
- The crisis occurs when sickled red blood cells stick together and block blood flow.
- For some people with sickle cell anemia, a crisis occurs less than once a year; for others it occurs monthly, or more often.
- Repeated crises over time can damage kidneys, lungs, bones, eyes, heart, and liver.

How is sickle cell anemia treated?

- Folic acid supplements and adequate fluids.
- Pain relief, including prescription painkillers if needed.
- Hydroxyurea, a chemotherapy agent, to prevent pain episodes in severe sickle cell anemia.
- Blood transfusions to treat anemia, relieve acute pain, or prevent stroke or other emergencies.
- Antibiotics and vaccines to prevent infections.
- In some cases, bone marrow or stem cell transplantation can cure the disease.

For More Information

http://familydoctor.org/online/famdocen/home/common/blood/550.html
Tips for preventing sickle cell crisis from the American Academy of Family Physicians.

http://www.nlm.nih.gov/medlineplus/sicklecellanemia.html
Information on recent developments in sickle cell research from the National Institutes of Health.

www.cdc.gov/ncbddd/sicklecell/healthyliving-emer-guide.html
Information on red flags and when to call a doctor, from the Centers for Disease Control and Prevention.

www.nhlbi.nih.gov/health/dci/Diseases/bmsct/bmsct_whatis.html
Information on bone marrow and stem cell transplantation from the National Heart, Lung, and Blood Institute.

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Patient Information