

## Fast Facts

### Sickle Cell Disorder

- Sickle cell anemia is caused by a mutation in the gene that instructs your body to make the iron-rich compound (hemoglobin) which makes your blood red and enables it to carry oxygen
- Normally, red blood cells are flexible and round, allowing them to move easily through your blood vessels
- The abnormal hemoglobin causes the red blood cells to become misshapen (they look like crescent moons or sickles). Also, they become rigid and sticky
- These changes result in two problems:
  - The first is the deformed cells break apart easily and die, leaving you with fewer blood cells than normal. Typically, red blood cells live for 120 days before they need to be replaced. With sickle cells, they die within 10 – 20 days, which leaves the person with a shortage. This means the person's body doesn't get enough oxygen
  - The second issue is that sickle cells get stuck in small blood vessels, slowing or blocking blood flow, which doesn't allow oxygen to get to specific body parts
- Symptoms vary from person to person and can change over time

<i><b>Symptoms</b></i>	<i><b>Treatment</b></i>	<i><b>Prevention</b></i>
-Fatigue -Pain usually in the joints, abdomen, chest, and bones (typically occurs periodically and is known as a pain crisis--can vary, and episodes can last from a few hours to a few weeks)	<i>Goal:</i> relieve symptoms, and prevent complications.  <i>Medications:</i> -Narcotics -Hydroxyurea -L-glutamine oral powder -Crizanlizumab -Voxelotor  -Blood transfusions -Stem cell (bone marrow) transplant	Avoid Complications: -Take folic acid supplements -Eat a variety of fruits, vegetables, and whole grains -Drink plenty of water (about eight glasses a day) -Try to avoid temperature extremes -Get regular exercise without overdoing it -Don't smoke -Be cautious with over-the-counter pain medications, like ibuprofen or naproxen sodium -Explore other ways to cope with the pain (heating pads, hot baths, massages, or physical therapy) -Find someone (a family member, friend, or therapist) to talk to -Prevent infections  -Genetic counseling prior to having children

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