

# Sickle Cell Trait & Athletes



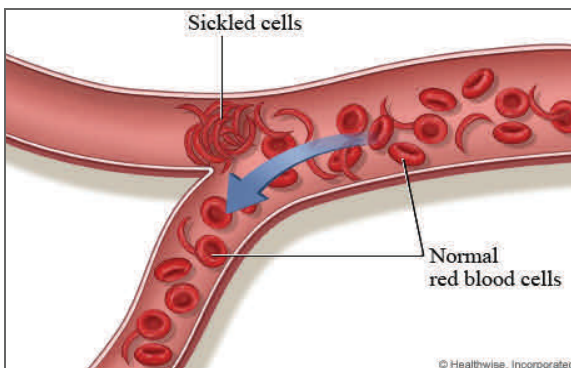
The NCAA and Division I and II institutions require testing for sickle cell trait before any student-athlete is permitted to practice or compete.

The Utah Newborn Screening panel began screening for hemoglobinopathies (including Sickle Cell Trait, also known as Hb S carrier screening) in 2001.

**Individuals born in Utah prior to 2001 did not have Sickle Cell screening.** Recommended testing for Sickle Cell is Hemoglobin S (Hb S) evaluation by HPLC with Reflex to Solubility. Many labs offer this testing which can be ordered through your medical home or family doctor. An example of sample requirements can be found at <http://www.aruplab.com/guides/ug/tests/0050520.jsp>

## Why is Sickle Trait a Concern?

People with sickle cell trait (SCT) carry one copy of a gene that can lead to an abnormal type of hemoglobin, the oxygen-carrying molecule in red blood cells. (two copies of the gene lead to sickle cell disease.)



For people with SCT, there is not much of a health concern. However, it has been shown that people with SCT are more likely to experience heat stroke and muscle breakdown when doing intense exercise, such as competitive sports or military training under unfavorable conditions (very high heat). A series of deaths in college athletes led the NCAA to institute the screening rule in 2010.

## Additional Information

CDC: <http://www.cdc.gov/ncbddd/blooddisorders/index.html>

NCAA: <http://www.ncaa.org/wps/wcm/connect/public/ncaa/health+and+safety/sickle+cell/sickle+cell+landing+page>

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