

Sickle Cell Trait Status: How do I....?

Beginning the fall of 2013 the NCAA mandates that its Division III colleges and universities determine the sickle cell trait status of all first year/transfer student-athletes. For the 2013-14 year **all** student-athletes participating in Augustana College NCAA sanctioned sports **must satisfy one** of the following options before they may be medically cleared to participate (includes practices and games or matches). These results are requested once during their time at Augustana College.

- 1. Documentation:** The student-athlete may provide documented results of a sickle cell solubility test administered before participation; or
- 2. Pending documentation:** A student-athlete who has taken a sickle cell solubility test but whose results are not yet confirmed may participate provided the student-athlete engages in mandatory education, signs a waiver and receives appropriate precautions as set forth by Augustana College; or
- 3. Opt-out:** The student-athlete may sign a waiver declining confirmation of sickle cell trait status. Before signing a waiver, the student-athlete shall be provided education regarding the implications of exercising the waiver option. Before athletics participation, a student-athlete who signs a waiver under this provision shall engage in mandatory education regarding sickle cell trait status.

How to provide documentation of previous testing:

All 50 states have adopted newborn screening programs that identify sickle cell trait status at birth, however not all states adopted screening in the same year. The state of Illinois began testing in 1989 and your results may be available from your child's pediatrician by submitting the Augustana PHI form or from the State of Illinois by sending the following information to deniseyoder@augustana.edu place sickle cell trait results in subject line along with the following in the body:

Student-athlete's full name (middle included)
Date of birth
Sex
Mother's Name (Maiden)
Birth Hospital (Illinois only)

We suggest calling your pediatrician prior to submitting any request to ask if they have any results on file; if not available send information as noted above.

If your child was not born in Illinois, please contact your pediatrician prior to submitting any request to ask if they have the results on file. To release the results you may use the Augustana PHI form. If you are unable to locate the results you may also contact the newborn screening program in the state where your child was born using this website:

<http://genes-r-us.uthscsa.edu/resources/consumer/statemap.htm>

Under NCAA rules, we must be aware of your child's sickle cell trait status when they arrive on campus for our sports medicine paperwork check in order to ensure the highest level of safety. **Realize it may take up to 8 weeks to obtain results, please attempt to request information from your pediatrician or state as soon as possible.**

How to obtain a test/pending documentation:

We highly recommend that you first attempt to collect results from your child's pediatrician or state of birth provided in the above directions. If your child was never tested (e.g. foreign born) or you are unable to obtain sickle cell trait testing results, you should be able to ask the physician conducting your sports physical for a blood test. You may then bring the results with you to the sports medicine paperwork check in.

Opt-out of sending results or testing:

If you or your child does not wish to submit results of a previous sickle cell trait test or are choosing not to get a sickle cell blood test, your student athlete may acknowledge this decision by signing a form in lieu of results. This form is not available online. It must be completed in person at the sports medicine paperwork check in where they will be given information regarding a mandatory education session about the sickle cell trait.

The medical staff at Augustana College is aiming to provide the highest level of safety for all student-athletes. Your assistance is greatly appreciated!

Thank you,

Dr Jason Clark MD
Team Physician

Denise Yoder MS ATC L
Head Athletic Trainer, Augustana College

For any questions please feel free to contact deniseyoder@augustana.edu or 309-794-7518

INFORMATION ON SICKLE CELL TRAIT

The following FAQ section will provide details about sickle cell trait.

What is sickle cell trait?

Sickle cell trait IS NOT A DISEASE, and furthermore sickle cell trait will not turn in to sickle cell disease, which is a different situation all together. Simply stated, sickle cell trait is the inheritance of one gene for normal hemoglobin (substance in red blood cells that carry oxygen) and one gene for sickle hemoglobin. Under conditions of intense or extensive exertion, normal round blood cells become "sickled" and can block blood vessels to vital organs and muscle, causing tissue damage and possible collapse.

Who gets sickle cell trait and how common is it?

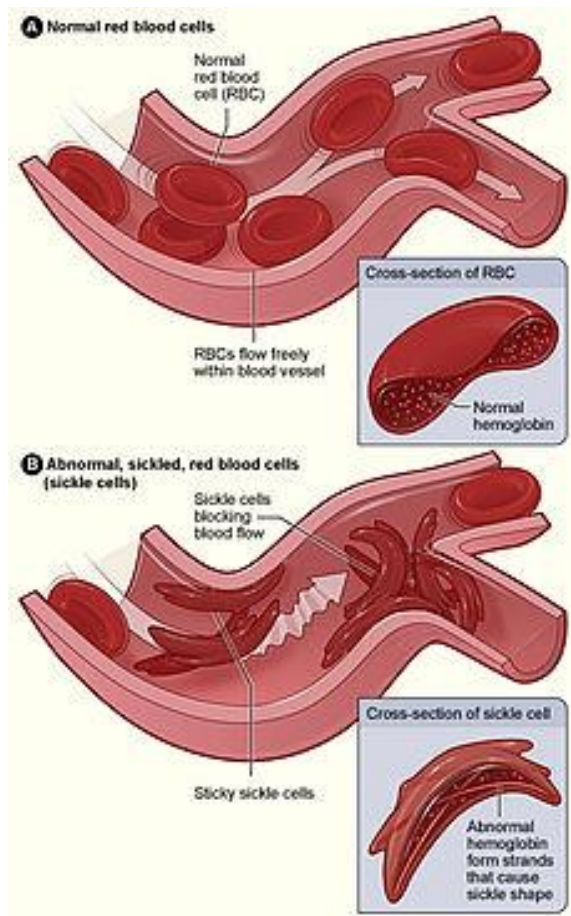
ANYONE can have sickle cell trait. Approximately 1 in 12 African Americans and 1 in 2,000-10,000 Caucasians have sickle cell trait. Also, the sickle cell gene is more common in those of African, Mediterranean, Middle Eastern, Indian, Caribbean, and South and Central American ancestry.

How do you test for sickle cell trait?

If you were born in the state of Illinois after 1989, you have been tested by the Genetics/Newborn Screening Program. Results are either available from your pediatrician at the time of your birth, or from the State of Illinois. If you were not born in Illinois you still may have been tested, but must check with your pediatrician or state agency. If you were not tested, sickle cell trait is easily identified from a simple blood test conducted by your physician.

How does a positive test impact my sport participation?

Athletes with sickle cell trait cannot be "conditioned" out of the trait. However, sickle cell trait is not a barrier to outstanding athletic performance as it is present in athletes at all levels of competition from high school to professional or Olympic. Athletes are not singled out or disqualified because of a positive test, although they are made aware of potential complications and what can be done to avoid them.



What are sickle cell trait symptoms and how quickly can I develop symptoms?

Typical symptoms of sickle cell trait include, but are not limited to, muscle weakness, cramping, shortness of breath, pain, and fatigue. Additional signs and symptoms of sickle cell trait can be visible blood in the urine, chest or abdominal pain, nausea, and vomiting. A characteristic of collapse related to sickle cell is that the athlete can still talk, as opposed to athletes that collapse from heatstroke or cardiac causes. Sickling of blood cells and onset of symptoms can occur very quickly in the first 2-3 minutes of any all-out exertion. Heat, dehydration, altitude, illness, and asthma can increase the risk for and worsen sickling, even when exercise is not all-out. It is important to note that complications from sickling are related to the INTENSITY of exercise, it is NOT purely related to overheating in hot climates.

What can I do to prevent problems associated with sickle cell trait?

The key to avoiding problems related to sickle cell trait is IMMEDIATELY stopping activity and alerting appropriate medical personnel if there is any concerning signs or symptoms. Athletes that run into problems often fully recover, especially if identified and treated as early as possible. Basic treatment includes rest, oxygen, and hydration. Also, if you have asthma, be sure to have your medications with you at all times and that you have proper asthma management.

Does having a positive test have any long-term consequences?

Sickle cell trait is generally benign and consistent with a long, healthy life. Most athletes complete their careers without complications. In fact, most people with sickle cell trait cannot tell that they have it. The most important implication that may arise in the future is that you can have a baby with sickle cell trait or even DISEASE (which is a serious condition) in the future. If a test is positive, the student athlete will be offered counseling on the implications of sickle cell trait, including health, athletics, and family planning.

For more information please see the following links:

NCAA Website: www.ncaa.org

National Athletic Trainers' Association Consensus Statement <http://www.nata.org/statements/consensus/sicklecell.pdf>

We will take the necessary precautions that may include but not be limited to the following:

1. Avoiding dehydration
2. Proper acclimatization to heat and humidity
3. Cessation of activity at onset of symptoms
4. Education