

# SICKLE-CELL TRAIT POLICY



As of August 2012, the NCAA requires all Division II student-athletes be tested for the Sickle-Cell Trait as part of their pre-participation physical exam, prior to any intercollegiate athletic events, including strength and conditioning, practices, competitions, or try-outs (\*by-law 17.1.5.1). Alliance University is in compliance with this mandate and requests that each prospective, incoming, and returning student-athlete provide the Office of Sports Medicine with documentation of their sickle cell trait status prior to any participation including try-outs. This is a once in a lifetime test, so documentation only needs to be obtained once. To help you understand this issue, some basic information is provided below, as well as a link to additional resources.

## What is Sickle-Cell Trait (SCT)?

Sickle-Cell Trait is not a disease, but the inherited condition of the oxygen-carrying protein, hemoglobin, in the red blood cells. It is the inheritance of one gene for normal hemoglobin (hemoglobin A) and one gene for sickle hemoglobin (hemoglobin S). SCT **IS NOT** Sickle-Cell Anemia, in which two abnormal genes are inherited (both hemoglobin S). SCT will not turn into Sickle-Cell Anemia. SCT is considered generally benign and consistent with a long, healthy, active life.

## Why test for SCT?

As stated above, SCT is usually benign, but during intense, sustained exercise, hypoxia (lack of oxygen) in the muscles may cause sickling of red blood cells (red blood cells changing from a normal disc shape to a crescent or “sickle” shape), which can accumulate in the bloodstream and “log-jam” blood vessels, leading to collapse and even death due to the rapid breakdown of muscles starved of blood and/or blocking blood flow to the tissues and muscles, including the heart.

During intense exercise, athletes with SCT have sometimes experienced significant physical distress (exertional sickling) and collapsed during rigorous exercise. Sickling can begin in 2-3 minutes of sustained, maximal exertion, such as wind sprints or running laps. The harder and faster the student-athlete goes, the earlier and greater the sickling. **Exertional sickling is a medical emergency**, and should not be mistaken for heatstroke or heat cramping. Student-athletes experiencing any distress or unusual symptoms during training, should report them immediately to the Alliance University Sports Medicine Staff and coach. Heat, dehydration, high altitude, and asthma can increase the risk for and worsen complications associated with SCT, even when exercise is not intense.

## Can Student-Athletes with SCT Participate in Intercollegiate Athletics?

SCT does not preclude any student-athletes from participation. However, carrying the trait increases the health risk to the student-athlete during athletic participation. Therefore, that individual should be monitored carefully during activity. Student-athletes with SCT should not be excluded from participation, as precautions can be put in place, but most student-athletes with SCT don't know they have it.

For more information on SCT in student-athletes:

[http://web1.ncaa.org/web\\_files/health\\_safety/SickleCellTraitforSA.pdf](http://web1.ncaa.org/web_files/health_safety/SickleCellTraitforSA.pdf) also

<http://ncaa.org/wps/wcm/connect/public/NCAA/Health+and+Safety/Sickle+Cell/>

## Who may have SCT?

SCT is a common condition, affecting more than 3 million Americans. Although SCT is most predominant in African-Americans and those of Mediterranean, Middle Eastern, Indian, Caribbean, and South and Central American ancestry, persons of all races and ancestry may test positive for SCT.

## How can I be tested for SCT?

SCT is diagnosed by **a simple blood test**. Also, today all 50 states have newborn screening programs that identify SCT status at birth, however not all states adopted screening in the same year (New York State started testing in 1975). If the student-athlete does not know their SCT status, they need to get a SCT test done over the summer.

## Testing options include:

1. If you have already been tested, during neonatal care, obtain a copy of the test results from your healthcare provider. • If you were born in the United States after 1984 (states differ), you have most likely been tested at birth. To verify testing at birth the student-athlete can contact his or her primary care physician, their pediatrician at birth, or the hospital where he or she was born. • A written note from the doctor or marking their status on a physical form are not acceptable forms of documentation, you must bring a copy of the official results to the Alliance University Sports Medicine Staff.
2. Get tested through your primary physician. If your insurance covers it, go get tested as part of your pre-participation physical as prescribed by your doctor. A written note from the doctor or marking their status on a physical form are not acceptable forms of documentation, you must bring a copy of the official results to the Alliance University Sports Medicine Staff.
3. Using the online Medivo website (cost is \$32.50 and you **MUST** be at least 18 years old). A new agreement with Quest Diagnostics' national laboratories will give NCAA member institutions and their student-athletes access to affordable blood tests for SCT through its 2,000 patient service centers (PSC). This is an online patient-centered laboratory test ordering service.
  - The student-athlete will go to the following website <https://sicklecelltesting.pwnhealth.com/order>
  - Through the easy to use and secure online system, the student-athlete will:
    - Sign-up and order the SCT test.
    - Find the nearest Quest Diagnostic PSC location to them.

- Pay for the screening test and physician service with a single \$32.50 fee.
  - Print the Quest Diagnostic test requisition form.
  - The student-athlete then **MUST** take the **Quest Diagnostics test requisition form** to a Quest Diagnostics PSC location they chose to have their blood drawn. There are no exceptions.
  - Test results will go back to Medivo for review. Medivo will post the results to their website for the student-athlete to view and print. • If a test is negative, the student-athlete must provide the Alliance University Sports Medicine Staff with a copy of the test results printed from Medivo's website. On average test results can be ready between 24-48 hours.
  - If a test is positive, the student-athlete will receive a phone call directly from a physician at PWN Health as well as an email with a link to go back online to request and pay for the confirmation reflex testing (\$30) through the PWN Health online system.
  - The student-athlete may need to have additional blood drawn for the confirmation test. **The student-athlete will then provide the results to their primary care physician and the Alliance University Sports Medicine Staff.**
4. **Student-athletes MUST provide a copy of the official SCT results to the Alliance University Sports Medicine Staff.** A written note from the doctor or marking their status on a physical form are not acceptable forms of documentation.
- If you run into an issue where your pediatrician does not have records of the test results, if your insurance does not cover the cost of the test, and for some reason you cannot secure the test online, please get documented proof of the issue and contact the Alliance University Sports Medicine Staff immediately.
  - Please do not leave this to the week before you are to return to campus!!! Many time laboratories are backed up and test results may take longer than a week.

**Alliance University is not responsible for any fees that may be incurred as a result of sickle-cell trait testing and/or fees associated with obtaining a copy of prior sickle-cell trait test results.**

### **Student-Athletes with a positive test result for SCT**

If a student-athlete tests positive for the SCT, they will meet with the Alliance University Sports Medicine Staff, including the team physicians, to make sure they are aware of the implications of the SCT and participation. The student-athlete's Coach and Strength and Conditioning personal will be notified confidentially by the Alliance University Sports Medicine Staff of their student-athletes positive SCT test so proper acclimation to training can be made and everyone involved can help reduce the risk of a SCT-induced health problem due to participation in training or competition. If a student-athlete has tested positive for SCT and they willingly choose to participate in Alliance University Athletics, they also willingly choose the following:

- The student-athlete assumes all risks of having Sickle-Cell Trait or Disease associated with athletics participation. The student-athlete also agrees to exonerate, safe harmless, and release Alliance University, its agents, servants, and employees from any and all liability, including claims of negligence, on the part of Alliance University, related to his or her participation in athletics.
- Additionally, it is important to note that the risk of complications due to sickle-cell trait cannot be completely eliminated; therefore, each student athlete remains responsible for the monitoring of his or her own health and takes precautions to reduce risks associated with sickle-cell trait, or any other health condition.

### **Steps to Prevent Exertional Sickling**

The following steps should be taken to help prevent sickling exertion, as well as other medical emergencies such as heat cramps, heat exhaustion, and heat stroke. **Athletes and coaches should consider any struggling, cramping, or collapse as a serious medical condition.** 1. **Build up slowly during training** - slow tempo, longer breathers, acclimate to weather conditions and altitude.

2. **Control asthma** - use prescribed medication and follow dosing instructions from your doctor. Report any breathing problems immediately to medical staff and coach.
3. **Modify drills** – avoid rigorous exercise of any type for 2-3 minutes without a breather, avoid wind sprints or suicides early in practice, after 40-50 minutes of conditioning or at the end of practice, avoid timed sprints or miles, sprints 500M, adjust work/rest cycles for heat. 4. **Hydrate** - drink plenty of fluids before, during, and after exercise. Take more water breaks during hot weather conditions. Drink only water, sports drinks and/or juices - stay away from coffee, tea, and energy drinks, which can cause dehydration. Check overnight urine (should be a pale yellow) to ensure kidneys are functioning and enough water was drunk.
5. **Communication** -athletes should report any unusual symptoms to the Alliance University Sports Medicine Staff and coach immediately. Never train when ill, particularly when running a fever. Report any illnesses to the Alliance University Sports Medicine Staff.

### **SCT Yearly Education**

All coaches, student-athletes and any staff members involved in training student-athletes will be informed yearly of the specifics of SCT including risks, signs, symptoms, proper acclimation to training, and how to provide emergency care if needed. After the fall of 2012, all incoming student-athletes must provide the Alliance University Sports Medicine Staff with documented results of a sickle cell solubility test and sign the Yearly Sickle-Cell Trait Policy stating they read and agree with the policy. All returning student-athletes will sign the Yearly Sickle-Cell Trait Policy confirming they have documented results on file with the Alliance University Sports Medicine Staff and they've read and agree with the policy.

For the health and safety of their student-athletes, Alliance University mandates that all student-athletes and prospective student-athletes get SCT tested. However, not every situation is compatible. Therefore, the Alliance University SCT Policy will have an option for those student-athletes for the purpose of try-outs to decline the mandate and sign a waiver choosing not to acquire and submit medical documentation or does not wish to undergo testing to determine his or her SCT status.

### **\*By-Law 17.1.5.1 Sickle-Cell Solubility Test**

The examination or evaluation of student-athletes who are beginning their initial season of eligibility and students who are trying out for a team shall include a sickle-cell solubility test (SST), unless documented results of a prior test are provided to the institution or the student-athlete declines the test and signs a written release. (Adopted: 1/14/12 effective 8/1/12)

<b>ALLIANCE UNIVERSITY SPORTS MEDICINE</b>	Name: _____	
<b><u>Student-Athlete Sickle-Cell Trait Statement</u></b>	Date of Birth: _____	Sport: _____

The NCAA is requiring all Division-II athletes and prospects to obtain a Sickle-Cell Solubility Test to screen student-athletes for sickle-cell trait before any student-athlete is permitted to practice, compete, strength and conditioning training, or take part in out-of-season training. This test will not be required if the student-athlete can provide the lab results documenting the results of a prior test. All states in the USA screen for the sickle-cell trait at birth, please contact your pediatrician to see if you can obtain your test results.

**Please read and initial the following statements, showing that the statement has been read, understood, agreed with, and approved by you.**

<small>Athlete's Initial</small>	Sickle-Cell Trait is not a disease, rather it is the inheritance of one gene for sickle hemoglobin vs. normal hemoglobin, which can cause my red blood cells to "sickle" (collapse) and accumulate in my bloodstream blocking the normal flow of blood to my muscles, organs, and other body tissues. If my muscles, organs, and other body tissues do not receive the oxygen which is transported by my red blood cells, then my muscles, organs, and other body tissues will shut down. This can lead to a collapse and possibly death.
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<small>Athlete's Initial</small>	I know that sickle-cell trait symptoms can be induced by exercise and training, along with heat, dehydration, sickness, fever, high altitudes, and asthma can increase the risk for and worsen complications. Athletes with sickle-cell trait are NOT excluded from sports participation, but precautions must be put into place for my safety. It is in my best interest to know whether I carry this trait or not and to know the precautions. I agree that I have read those precautions and have asked any and all questions I have related to SCT.
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<small>Athlete's Initial</small>	I understand that the NCAA mandates that I be tested for the sickle-cell trait before <b>ANY</b> participation in collegiate athletics at Alliance University and I will provide the Alliance University Sports Medicine Department with the results of my sickle-cell solubility test.
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<small>Athlete's Initial</small>	I understand that if this condition is not diagnosed, it may cause significant physical distress, permanent damage, risk of life, and even death.
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<small>Athlete's Initial</small>	I understand if I am positive for the sickle-cell trait, I will meet with the Alliance University Sports Medicine Staff, and any other personnel active with my training to work within the guidelines to reduce complications that may occur with having the sickle cell trait and intercollegiate athletics. I also acknowledge and agree to the risk stated in the Sickle-Cell Trait Policy regarding student-athletes who are sickle-cell trait positive and willing choose to participate in intercollegiate athletics.
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<small>Athlete's Initial</small>	I have a copy of my sickle-cell trait lab results & will attach the results to this form.
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I, \_\_\_\_\_ understand and acknowledge that the NCAA and Alliance University mandates  
(Student-Athlete's Name)  
that all student-athletes have knowledge of their sickle-cell trait status and be able to show proof of a prior lab result test. Additionally, I have read and fully understand the aforementioned facts about sickle-cell trait and sickle-cell trait testing and have read and fully understand the NCAA Sickle-Cell Trait Fact Sheet for Student-Athletes. I acknowledge that if I had any questions regarding sickle-cell trait, they have been answered. Recognizing that my true physical condition is dependent upon an accurate medical history and a full disclosure of any symptoms, complaints, conditions, prior injuries, ailments, and/or disabilities experienced, I hereby affirm that I have fully disclosed in writing any prior medical history and/or knowledge of sickle cell trait status to Alliance University Sports Medicine Department.

Student-Athlete Print Name: \_\_\_\_\_ Student-Athlete Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
First Middle Last

Parent/Guardian Print Name: \_\_\_\_\_ Parent/Guardian Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**This form along with a copy of your Sickle-Cell Trait Lab Results must be given to the Athletic Trainers**