

Live Well to

Learn Well

Web:

health.cornell.edu

Phone (24/7):

607-255-5155

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607-255-0269

Appointments:

Monday–Saturday

Check web for hours, services, providers, and appointment information

110 Ho Plaza,

Ithaca, NY

14853-3101

Athlete Testing for Sickle Cell Trait

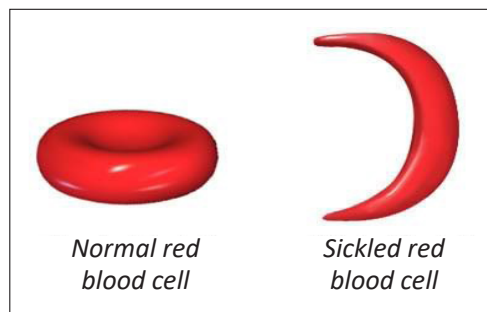
Cornell Health's Sports Medicine Team works closely with CU Athletics to be sure all members of our men's and women's teams are not only medically-sound but also well-primed with information in order to excel both on and off the field, rink, track, pool, mat and inlet!

Since August, 2010 the NCAA has mandated special testing for sickle cell trait among new (first year or transfer) Division 1 college athletes, unless an athlete declines to be tested and signs a waiver.

This information is provided to help you know more about this condition, how it applies to you, and how to get tested at Cornell Health.

What is sickle cell trait?

Sickle cell trait is not a disease. It is the inheritance of one gene for making sickle hemoglobin and one for making normal hemoglobin.



Sickle cell trait will not turn into the disease "sickle cell anemia," but it is a lifelong condition and it will not change over time.

Why does the NCAA care if athletes have the sickle cell trait?

It can impact your health & safety:

- During intense exercise, red blood cells containing the sickle hemoglobin can change shape from round to quarter-moon, or "sickle."
- Sickled red cells may accumulate in the bloodstream during intense exercise, blocking normal blood flow to the body's tissues and muscles.
- Athletes with sickle cell trait have experienced significant physical distress, collapsed, and even died.
- Heat, dehydration, altitude, and asthma can increase with sickle cell trait, even when exercise is NOT intense.



The NCAA recommends athletic departments confirm the sickle cell trait status in ALL student athletes.

Who is at risk?

People at higher risk for having sickle cell trait are those whose ancestors came from Africa, South or Central America, India, Saudi Arabia or from Caribbean or Mediterranean countries.

However, while sickle cell trait is more common in those populations, in today's homogeneous society, anyone could be a carrier. The sickle gene is a condition of inheritance rather than race or ethnicity.

- Sickle cell trait occurs in about 8% of the African-American population and between 1 in 2,000 and 1 in 10,000 in the U.S. Caucasian population.
- Most U.S. states test at birth, but most athletes with sickle cell trait do NOT know they have it.
- The NCAA recommends athletic departments confirm the sickle cell trait status in ALL student athletes.

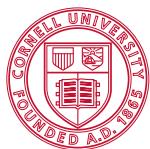
How can I get tested?

You can arrange for the test by calling Cornell Health's department of Sports Medicine (607-255-5156) and speaking with a nurse.

The test for sickle cell trait recommended by the NCAA is the "sickle cell solubility test," which requires a blood draw. This can be conducted in Cornell Health's Laboratory, located on Level 2.

Can I still participate as an athlete if I have the sickle cell trait?

Yes. Athletes with sickle cell trait should not be excluded from participation as precautions can



be put in place. Knowledge of sickle cell trait can be a gateway to education and simple precautions that may prevent collapse among athletes with sickle cell trait, allowing you to thrive in your sport.

How can I prevent health and performance problems if I have it?

- Know your sickle cell status.
- Engage in a slow and gradual pre-season conditioning regimen and build up intensity slowly while in training.
- Set your own pace. Use adequate rest and recovery between repetitions, especially during “gassers” and intense station or “mat” drills.
- Avoid pushing with all-out exertion longer than two to three minutes without a rest interval or a breather.
- If you experience symptoms such as muscle pain, abnormal weakness, undue feeling fatigue or breathlessness, stop the activity immediately, and notify your athletic trainer or coach.
- Stay well-hydrated at all times, especially in hot or humid conditions.
- Avoid using high-caffeine energy drinks for supplements, or other stimulants, as they may contribute to dehydration.

- Maintain proper asthma management.
- Refrain from extreme exercise during acute illness, if feeling ill, or while experiencing a fever.
- Beware when adjusting to a change in altitude, (e.g., a rise in altitude of as little as 2,000 feet). Modify your training and request that supplemental oxygen be available to you.
- Seek prompt medical care when experiencing unusual physical distress.

For more information

In addition to speaking with your coach, please consider the following student athlete resources:

- Cornell Health Sports Medicine: 607-255-3892 and 607-255-5156
- NCAA: [NCAA.org/health-safety](https://www.ncaa.org/health-safety)