CONCUSSION

SAFETY

#### WHAT STUDENT-ATHLETES

**NEED TO KNOW**

What is a concussion?

A concussion is a type of traumatic brain injury. It follows a force to the head or body and leads to a change in brain function. It is not typically accompanied by loss of consciousness.

How can I keep myself safe?

*1. Know the symptoms.*

*You may experience …*

* Headache or head pressure
* Nausea
* Balance problems or dizziness
* Double or blurry vision
* Sensitivity to light or noise
* Feeling sluggish, hazy or foggy
* Confusion, concentration or memory problems

*2. Speak up.*

* If you think you have a concussion, stop playing and talk to your coach, athletic trainer or team physician immediately.

*3. Take time to recover.*

* Follow your team physician and athletic trainer’s directions during concussion recovery. If left unmanaged, there may be serious consequences.
* Once you’ve recovered from a concussion, talk with your physician about the risks and benefits of continuing to participate in your sport.

How can I be a good teammate?

*1. Know the symptoms.*

*You may notice that a teammate …*

* Appears dazed or stunned
* Forgets an instruction
* Is confused about an assignment or position
* Is unsure of the game, score or opponent
* Appears less coordinated
* Answers questions slowly
* Loses consciousness

*2. Encourage teammates to be safe.*

* If you think one of your teammates has a concussion, tell your coach, athletic trainer or team physician immediately.
* Help create a culture of safety by encouraging your teammates to report any concussion symptoms.

*3. Support your injured teammates.*

* If one of your teammates has a concussion, let him or her know you and the team support playing it safe and following medical advice during recovery.
* Being unable to practice or join team activities can be isolating. Make sure your teammates know they’re not alone.



*No two concussions are the same. New symptoms can appear hours or days after the initial impact. If you are unsure if you have a concussion, talk to your athletic trainer or team physician immediately.*

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### What happens if I get a concussion and keep practicing or competing?

* Due to brain vulnerability after a concussion, an athlete may be more likely to suffer another

concussion while symptomatic from the first one.

* In rare cases, repeat head trauma can result in brain swelling, permanent brain damage or even death.
* Continuing to play after a concussion increases the chance of sustaining other injuries too, not just concussion.
* Athletes with concussion have reduced concentration and slowed reaction time. This means that you won’t be performing at your best.
* Athletes who delay reporting concussion take longer to recover fully.

### What are the long-term effects of a concussion?

* We don’t fully understand the long-term effects of a concussion, but ongoing studies raise concerns.
* Athletes who have had multiple concussions *may* have an increased risk of degenerative brain disease and cognitive and emotional difficulties later in life.

CONCUSSION TIMELINE

### What do I need to know about repetitive head impacts?

* Repetitive head impacts mean that an individual has been exposed to repeated impact forces to the head.

These forces may or may not meet the threshold of a concussion.

* Research is ongoing but emerging data suggest that repetitive head impact also may be harmful and place a student-athlete at an increased risk of neurological complications later in life.

### Did you know?

* NCAA rules require that team physicians and athletic trainers manage your concussion and injury recovery independent of coaching staff, or other non-medical, influence.
* We’re learning more about concussion every day. To find out more about the largest concussion study ever conducted, which is being led by the NCAA and U.S. Department of Defense, visit [ncaa.org/concussion](http://ncaa.org/concussion).

**Baseline Testing**

Balance, cognitive and neurological tests that help medical staff manage and diagnose a concussion.

# Concussion

If you show signs of a concussion, NCAA rules require that you be removed from play and medically evaluated.

# Recovery

Your school has a concussion management plan, and team physicians and athletic trainers are required to follow that plan during your recovery.

# Return to Learn

Return to school should be done in a step-by-step progression in

which adjustments are made as needed to manage your symptoms.

# Return to Play

Return to play only happens after you have returned to your preconcussion baseline and you’ve gone

through a step-by- step progression of increasing activity.



For more information, visit [ncaa.org/concussion](http://www.ncaa.org/sport-science-institute/concussion).

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#### A FAct Sheet For Student-AthleteS

SICKLE CELL TRAIT

# What is sickle cell trait?

**sickle cell trait** is not a disease. Sickle cell trait is the inheritance of one gene for sickle hemoglobin and one for normal hemoglobin. Sickle cell trait will not turn into the disease. Sickle cell trait is a life-long condition that will not change over time.

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 tissues and muscles.

During intense exercise, athletes with sickle cell trait have experienced significant physical distress, collapsed and even died.

Heat, dehydration, altitude and asthma can increase the risk for and worsen complications associated with sickle cell trait, even when exercise is not intense.

Athletes with sickle cell trait should not be excluded from participation as precautions can be put into place.

# Do you knoW if you have sickle cell trait?

#### People at high risk

for having sickle cell trait are those whose ancestors come from Africa, South or

Central America, India, Saudi Arabia and Caribbean and Mediterranean countries.

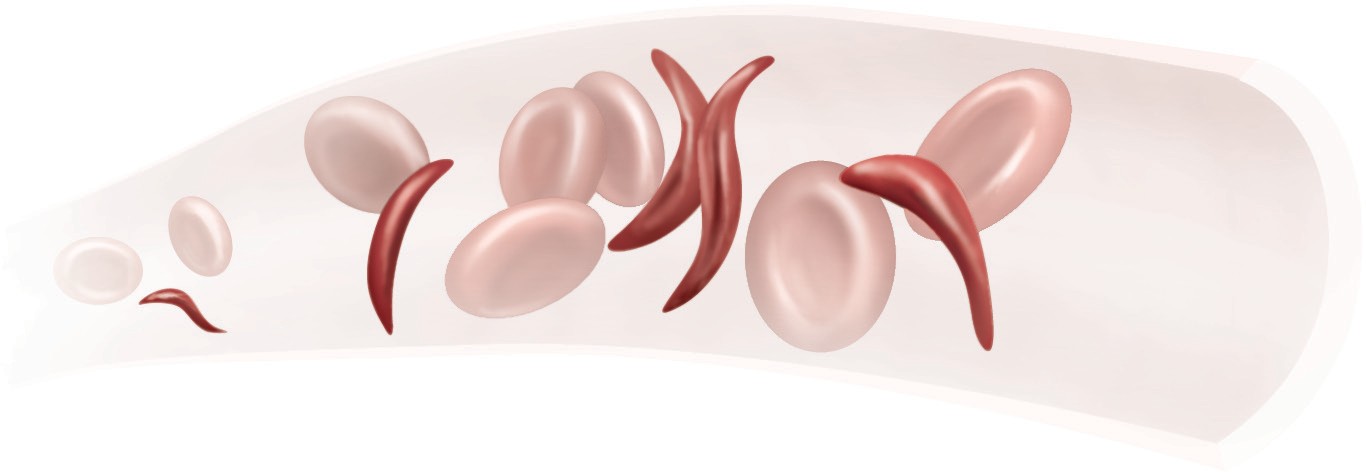
Sickle cell trait occurs in about 8 percent of the U.S. African-American population, and between one in 2,000 to one in 10,000 in the Caucasian population.

Most U.S. states test at birth, but most athletes with sickle cell trait don’t know they have it.

The NCAA recommends that athletics departments confirm the sickle cell trait status in all student-athletes.

Knowledge of sickle cell trait status 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 a collaPse?



Know your sickle cell trait status.

Engage in a slow and gradual preseason conditioning regimen.

Build up your intensity slowly while 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 fatigue or breathlessness, stop the activity immediately and notify your athletic trainer and/or coach.

Stay well hydrated at all times, especially in hot and humid conditions.

Avoid using high-caffeine energy drinks or 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 and resources, visit** [**www.NCAA.org/health-safety**](http://www.NCAA.org/health-safety)