Athletics & Sickle Cell Trait (SCT): What EVERY Athlete Needs to Know

A Sports Health and Safety Educational Fact Sheet

Why is this important?

SCT is a known risk factor associated with some potential critical complications that can also impact athletes if uninformed. Only 16% of Americans know their SCT status and it disproportionately impacts black and brown communities.

Who is this fact sheet for?

All athletes, coaches and anyone involved in athletics. This fact sheet focuses on empowering athletes, coaches and family members irrespective of their sickle cell status to take charge of their health while participating in sports. This information is for athletes at all levels in any sport.

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5 Key Facts to Stay Informed

1. Individuals with SCT can participate in all sports.

Several prominent world class athletes are SCT carriers. SCT is when an individual has only one copy of the sickle gene instead of two which would be sickle cell disease (SCD). People with SCT can be successful athletes at all levels and should not be stigmatized for participating in sports.

2. Precautions for exertion is for all athletes – not only athletes with SCT.

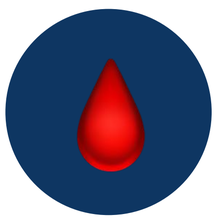
Warming up and good conditioning can help decrease the risk of exercise exertion or rhabdomyolysis for all athletes including those with SCT. If you see or feel something isn't right with you or another athlete, say something immediately! You could save a life.

3. Potential complications of SCT can occur under extreme conditions.

Be cautious of extreme conditions such as: dehydration, overexertion, low oxygen levels and high altitudes. Some complications associated with SCT due to these extreme conditions can include: muscle breakdown, blood in urine, etc. Be informed and not afraid of these complications.

4. Hydration is essential for all athletes including SCT carriers.

All athletes should stay hydrated while participating in sports at all levels. Dehydration can be a risk factor for SCT potential complications. Hydration in the summer time is even more critical due to higher temperatures. Be mindful that some drinks, especially those with high levels of caffeine can cause dehydration.



5. Everyone should know their sickle cell trait status.

Everyone regardless of their race or ethnicity can carry the sickle cell gene. Two parents with SCT have a chance of having a child with SCD or SCT with each pregnancy. Knowing your SCT status helps you stay informed about your health and take precautions, if needed, to avoid potential SCT complications.

This fact sheet is provided by a team of experts and researchers dedicated to providing evidence-based information on sickle cell disease and sickle cell trait as part of Sickle Cell 101's commitment to providing health equity for underserved communities.

More educational resources at: Sickle Cell 101

Ask Our Sickle Cell Trait Experts
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