

**MISSOURI S&T SPORTS  
MEDICINE**

**CONCUSSION MANAGEMENT  
PROGRAM** (Updated May 2017)

The S&T Sports Medicine Program recognizes the importance of proper diagnosis, treatment, and management of concussions. NCAA Guidelines and current medical standards of practice have been used to develop the *Missouri S&T Sports Medicine Concussion Management Program*. This program will be updated annually.

This program is a partnership between the medical staff, trainers, coaches, and student-athletes.

Reference is made to:

NCAA Sports Medicine Handbook 2013-2014

Guideline 21 SPORTS-RELATED CONCUSSION” Revised July 2013 pages 56-66

Concussion (Mild Traumatic Brain Injury) and the Team Physician: A Consensus Update -2011  
Sports Medicine Update January/February 2012)

National Athletic Trainers’ Association Position Statement:

Management of Sport Concussion Journal of Athletic Training April 2014

**EDUCATION:** Training will occur annually and with orientation for new athletes, coaches, and medical staff.

1) All S&T athletes:

- a. Will read the *NCAA Concussion Fact Sheet for Student-Athletes* and.
- b. Sign the attached *Student-Athlete Concussion Statement* attesting they understand the *NCAA Concussion Fact Sheet*
- c. Accept the responsibility for reporting their injuries and illnesses to the institutional medical staff, including signs and symptoms of concussions by signing the *S&T Concussion Agreement*

- 2) All S&T coaches (head coaches and assistant coaches):
  - a. Will read the *NCAA Concussion Fact Sheet* for coaches
  - b. They will sign the *Coaches Concussion Statement* that they understand the *NCAA Concussion Fact Sheet*
  - c. Will encourage their athletes to report any suspected injuries and illness to the institutional medical staff, including signs and symptoms of concussions; and that they accept the responsibility for the referring any athlete to the medical staff suspected of sustaining a concussion.
  - d. Will read and understand the *S&T Sports Medicine Concussion Management Program*
  
- 3) All S&T team physicians, physician extenders, athletic trainers, graduate assistant athletic trainers, and undergraduate athletic trainers:
  - a. Will provide athletes with the *NCAA Concussion Fact Sheet* and encourage their athletes to report any suspected injuries and illnesses to the institutional medical staff, including signs and symptoms of concussions
  - b. Have read, understand, and will follow the *S&T Sports Medicine Concussion Management Program*
  - c. Will read and sign *the Provider Concussion Statement*
  
- 4) The Student Health Educator:
  - a. Will promote campus awareness of concussion reporting and management through programs and marketing. This will include current information that is available through the Center for Disease Control and other authoritative sources.
  - b. Ensure the updated *S&T Sports Medicine Concussion Management Program* document will be accessible through the S&T Sports Medicine website.

## PREPARTICIPATION

All student athletes will receive base line testing regardless of sport.

- Tested individuals include: first year athletes, transfers athletes, athletes with previous season concussions, and other selected athletes.
- Testing documentation will be part of the athletic medical record.
- Testing includes: ImpACT cognitive software, symptom review, balance testing, vestibular ocular, and King-Devick testing.
- Testing will occur before an athlete is cleared to participate in their first practice.

## DIAGNOSIS

Because recognition of a concussion is difficult and the associated symptoms may be vague, S&T medical staff will take an active approach to early head injury recognition. If there is any doubt, the athlete will be taken out of competition.

Diagnosis starts with recognition or reports of wide variety of potential symptoms.

Possible Signs and Symptoms of Concussion include:

### Physical

- Headache
- Nausea or vomiting
- Blurred Vision
- Balance problems
- Fatigue or low energy
- Sensitivity to light
- Sensitivity to noise
- Numbness/tingling
- Dizziness / dazed
- Loss of consciousness seizure or convulsion
- Amnesia
- “pressure to the head”
- ~~Neglect~~
- Feeling mentally “foggy”
- Feeling slowed down
- Difficulty concentrating
- Difficulty remembering
- Forgetful of recent information and conversations
- Confused about recent event
- Answers questions slowly
- More emotional
- Drowsiness
- Irritability sadness
- Nervous or anxious

Whenever a concussion is suspected:

- Missouri S&T medical staff shall be notified immediately of any signs and symptoms of a concussion that is witnessed, reported or suspected.
- The athlete will be immediately taken out of participation (practice or competition).
- A sideline evaluation will be promptly administered by an athletic trainer. SCAT3 examination and the medical staff’s neurological evaluation are performed.
- Student-Athlete may only return to play the same day if all of the following are present:
  - He/she passes examination from the SCAT3 exam.
  - He/she does not present any concussion like symptoms at rest or with exertion tests.
  - A minimum of 15 minute observation with monitoring.
- Student-Athlete is removed from play if he/she fails any part of the SCAT3.
  - If removed from play, the student-athlete is not to return for the remainder of the competition.
  - The student-athlete will be diagnosed with a concussion.

- If Student-Athlete sustains loss of consciousness or displays a progression or deterioration of mental or physical condition, they will be sent immediately to the local emergency room via ambulance with additional emphasis on cervical spine and airway stabilization.

When a concussion is confirmed:

- **During Competition**
  - If the student-athlete does not display emergent symptoms he/she will remain on the sidelines and will be rechecked periodically for changing symptoms by the medical staff.
  - If at any time during the competition the medical staff feels that the student-athlete's symptoms deteriorate beyond his/her scope of practice he/she will be sent immediately to the local emergency room.
- **Post competition**
  - If determined to be stable the student-athlete will receive a copy of the approved *Missouri S&T Athletic Training Post Concussion Take Home Instructions*.
  - A reliable person will be assigned to assist and monitor the involved student-athlete and will also review the take home instructions.
  - The assigned person will be responsible for notifying the assigned athletic trainer if signs and symptoms deteriorate.
  - A copy of this documentation will be part of the athletic medical treatment record.
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- **Follow up evaluations:**
  - A standardized post-concussion symptom checklist, ImpACT and balance testing will be administered within 24hrs which will be compared to his/her baseline score. Results of examination will be documented.
  - A Physician evaluation is recommended within 24-48 hours post injury.
  - Student-Athletes will have continued repeat evaluations at a frequency determined by the athletic trainer and the team physician.
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  - With any deterioration of symptoms or decline in examination the student athlete will have consideration for additional imaging or specialty referral as necessary.
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  - The student-athlete will be educated on Second Impact Syndrome.
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  - Prolonged symptoms will be assessed for Post-Concussion Syndrome.

- **When the student-athlete becomes asymptomatic:**
- - **The student-athlete will be retested using the symptom checklist, ImPACT and balance testing along with any additional neurologic testing.**
  - **The team physician will reexamine the student-athlete and clear for a graduated return to play protocol. Refer to return to play stages and supplemental documentation form.**
  - **The student-athletes must be cleared for play by the team physician after completing Stage 5 of the return to play.**
  - **Final clearance and all intermediate clearances will be documented in the student-athlete's medical treatment record.**

**The S&T Sports Medicine Program:**

**Does not allow coaches from serving as the primary supervisor for athletics health care providers (e.g., sports medicine staff, trainer, team physician, outside physician).**

**Gives qualified health care providers with experience in the evaluation and management of TBIs and concussions the final authority to remove any such athlete with "possible TBI or concussion" from athletic activity (such as competition, practice, or conditioning sessions).**

**Gives qualified health care providers with experience in the evaluation and management of TBIs and concussions final authority to prevent the return to athletic activity (such as competition, practice, or conditioning sessions) of any such athlete with "possible TBI or concussion."**

**Give qualified health care providers with experience in the evaluation and management of TBIs and concussions final authority to immediately refer any such athlete with "possible TBI or concussion" to an appropriately-qualified physician or emergency service provider.**