

**KATONAH - LEWISBORO SCHOOL DISTRICT**  
**HEALTH CARE SERVICES**  
***CONCUSSION GUIDELINES***

**GOAL:** To assess the severity of injury and to guide the safe return to participation in sports and physical education.

**PROCEDURE:**

**STEP 1. Subsequent to head injury, the Coach and/or Athletic Trainer will:**

- I. Remove athlete from play.
- II. Coach/ Athletic Trainer completes "Concussion Checklist".
- III. Inform the athlete's parent/guardian and the health office about the known or possible concussion and give them the "Concussion Checklist Evaluation." Student-Athlete remains under adult/coach supervision until released to the student-athlete's guardian.
- IV. The student-athlete cannot return to sport until health care provider completes the "Concussion Checklist Evaluation." This is to be returned to the Health Office for review by the concussion management team.
- V. Perform first post-injury ImPACT test 24-72 hours after injury.
- VI. If a "NO Concussion" diagnosis is made by the primary care physician and the repeat ImPACT test is comparable to the baseline, the concussion management team will determine when the student may start the return to play.
- VII. School Physician will grant final clearance of athlete to return to sports/ PE.

**STEP 2. Concussion Diagnosis:**

- I. **First Concussion:**
  - A. Athlete must be medically cleared by their Primary Care Physician.
  - B. Symptom-free for 7 consecutive days & ImPACT post injury scores are comparable to baseline scores.
  - C. If Loss of Consciousness: Student-Athlete must be symptom-free for 14 consecutive days & ImPACT post injury scores are comparable to baseline scores.
- II. **Second Concussion** (*Defined within 12 months from the 1st concussion*):
  - A. Athlete must be medically cleared by their Primary Care Physician.
  - B. Athlete must be symptom-free for 14 consecutive days & ImPACT post injury scores are comparable to baseline scores.
  - C. If Loss of Consciousness: Symptom-free for 30 consecutive days.
- III. **Third Concussion** (*Defined within 12 months from the 2nd concussion*):
  - A. Student-Athlete must be medically cleared by their Primary Care Physician.
  - B. Symptom-free for a minimum of 30 consecutive days & ImPACT post injury scores are comparable to baseline scores.
  - C. Must be evaluated by a neurologist.
  - D. A written report from neurologist must be submitted to Health Office for review by School Physician.

**STEP 3. *When medically cleared by School Physician, student-athlete must complete "Return to Play" protocol under the direction of the Athletic Trainer.***

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**RETURN TO PLAY :**

**Stage One: Rest-Until Symptom- Free (Asymptomatic)**

- a. Once student-athlete is asymptomatic for a full 7 days, they can progress to Stage 2.

**Stage Two: Light Aerobic Exercise**

- a. Fast walking/ stationary bike - for 15-20 minutes, supervised
- b. Any signs/symptoms during activity; stop for a day and restart Stage 2 after asymptomatic for 24 hours.

**Stage Three: Moderate aerobic exercise**

- a. Jogging/running for 20 minutes, supervised.
- b. Any return of signs/symptoms, stop activity
- c. If symptomatic post exertion within 24 hours, rest until asymptomatic and restart Stage 3
- d. Asymptomatic for 24 hours, successful completion for Stage 3, proceed to Stage 4.

**Stage Four: Non-contact sport activity**

- a. Sport specific drill for 30-45 minutes (i.e. dribbling, passing, fielding, batting)
- b. Any return of signs/symptoms, stop activity.
- c. Administer ImPACT test **POST** exertion to evaluate cognitive function after activity.
- d. If ImPACT results are at or near baseline and athlete is asymptomatic for 24 hours, successful completion of Stage 4, proceed to Stage 5.
- e. Consult ImPACT consultant or primary care physician to obtain clearance for full RTP.

**Stage Five: Full Participation in practice without contact.**

- a. Any return of signs/symptoms, stop activity.
- b. If symptomatic post exertion within 24 hours, rest until asymptomatic and restart Stage 5
- c. Asymptomatic for 24 hours, successful completion for Stage 5, proceed to Stage 6.

**Stage Six: Full participation in practice, no restrictions**

- a. Any return in signs/symptoms, stop activity
- b. If symptomatic post exertion within 24 hours, rest until asymptomatic and restart Stage 6
- c. Asymptomatic for 24 hours, successful completion of Stage 6, proceed to Stage 7.

**Stage 7: Cleared for RTP to competition, no restrictions, by Neuropsychologist and/or primary care physician.**

- a. Final clearance by Athletic Trainer.

**Second Impact Syndrome :**

*Second impact syndrome is a very rare condition in which a second concussion occurs before a first concussion has properly healed, causing rapid and severe brain swelling and often catastrophic results. Second impact syndrome can result from even a very mild concussion that occurs days or weeks after the initial concussion.*

- I.** Vascular engorgement leads to massive intracranial pressure and brain herniation
- II.** May occur with subdural hematoma
- III.** Can result in brain damage or death (Mortality rate of 50%)
- IV.** All cases in literature, athletes were under 20 years old
- V.** Should be treated as potentially catastrophic medical emergencies **CALL 911.**