

Salisbury Township School District Athletic Concussion Protocol

Parents/Guardians:

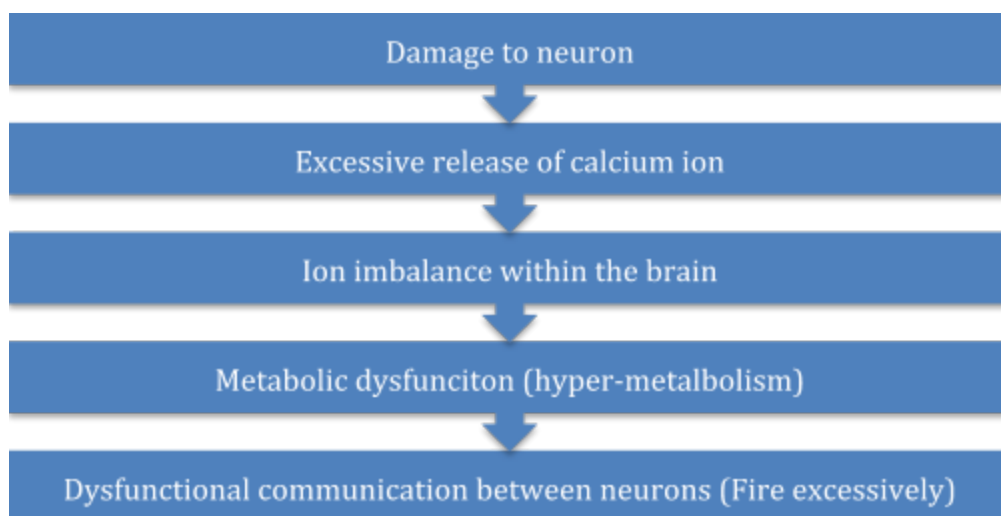
The health and safety of our student athletes are everyone's responsibility. For this reason, the Salisbury Township School District has made it a priority to further educate you and your child on concussions. The following protocol will discuss how concussions occur; the signs and symptoms of concussion; evaluation and treatment; and the process your child will go through should he/she sustain a concussion while participating in STSD athletics. This protocol is in accordance with Act 101, *The Safety in Youth Sports Act*, which states that any athlete suspected of having a concussion will be removed from play. The athlete will return to play upon determination from an appropriate medical professional. **Please join us in understanding, preventing and treating concussions!**

What is a concussion?

A concussion, also commonly referred to as a mild traumatic brain injury, is the result of an injury to the cells of the brain. Concussions are caused by a direct blow to the head or face, OR from an indirect force to the head, neck or body that causes the free-floating brain to bounce or twist inside the skull (imagine a whip-lash" effect). The damaged nerve cells release an excessive amount of chemicals, creating an ion imbalance within the brain. This in turn stimulates an irregular chain of reactions within the brain, ultimately leading to the brain's inability to function properly.

It is important to understand that a concussion is not necessarily a "brain bruise", as described in the past, but is instead a **metabolic meltdown leading to dysfunctional communication between the cells of the brain.**

More simply put, a concussion is ANY ALTERATION IN BRAIN FUNCTION, no matter how brief or long lasting.



What are the symptoms of concussion?

Symptoms may include one or more of the following:

Physical		Mental	Emotional	Sleep
Headaches	Sensitivity to light	Feeling mentally foggy	Irritability	Drowsiness
Nausea	Sensitivity to noise	Problems concentrating	Sadness	Sleeping more than usual
Fatigue	Numbness or tingling	Problems remembering	Feeling more emotional	Sleeping less than usual
Visual problems	Vomiting	Feeling slowed down	Nervousness	Trouble falling asleep
Balance problems	Dizziness	Confusion	Changes in mood	

Symptoms may be obvious (such as when an athlete is disoriented) or symptoms may be very subtle (such as headaches that come and go or sensitivity to the commuter screen)

What is Salisbury Township School District's protocol?

Every athlete who is suspected to have sustained a concussion while participating in Salisbury Township School District interscholastic athletics will be evaluated according to a protocol set forth by STSD/LVHN.

The protocol involves:

1. Full clinical evaluation by a medical professional (often initially by the certified athletic trainer)
2. Post-injury ImPACT test
3. Consultation with a physician who is ImPACT trained
4. Determination of appropriate course of treatment, including office visit and academic accommodations if warranted
5. Gradual return to play progression

The components of the protocol are further outlined below.

How is a concussion evaluated and diagnosed?

Each head injury is unique and can present in different ways. This is why it is difficult to “grade” the severity of concussions. No matter how minor the severity, every case should be taken seriously and treated accordingly to allow safe return to participation. Evaluation by an appropriate medical professional involves a battery of tests to help determine the severity of the injury. In addition to ruling out a neck injury, testing for a head injury may include:

- **A detailed history of the injury**
 - Previous history, loss of consciousness, amnesia, seizures?
 - Location of blow and mechanism of injury?
- **Cognitive function**
 - Questions to determine athlete’s orientation, concentration and memory
- **Symptom Checklist/Self Reported Symptoms**
 - Presence of symptoms and their severity
- **Cranial Nerve Testing**
 - Rule out a more serious brain injury
- **Balance Testing/Postural Stability**
 - Helps identify deficiencies in postural awareness
- **Vestibular-Ocular Exam/King-Devick**
 - Evaluates proper tracking of eyes as they focus
- **ImPACT testing (Computerized Neuropsychological Testing)**
 - Results are read by a professional and used as an adjunct to other evaluation tools

Diagnostic Imaging

A physician may order diagnostic testing if warranted based on clinical exam. A “normal” scan does not necessarily mean that the athlete has not sustained a concussion.

- CT Scan or MRI
 - Show structural damage/bleeding, such as a hematoma or skull fracture

NOTE: If the athlete goes to the Emergency Department or consults a physician, *please notify the athletic department or athletic trainer at your earliest convenience*. This is important so that STSD can follow up responsibly.

How should a concussion be treated?

Following a concussion, it is important to allow the brain to heal. Both physical rest and cognitive (mental) rest are essential for recovery. In addition to plenty of sleep, it is recommended that an athlete who has sustained a concussion avoid physical exertion and limit visual stimuli (such as watching TV, playing video games, or using electronic devices). A physician may also prescribe academic accommodations.

Please have your child refrain from taking pain medications unless told to do so by a physician. Certain medications may increase injury or mask symptoms, making it difficult to re-assess the athlete’s condition.

When is it safe to return to participation?

Return to participation is an objective decision. No single test is used to determine how much recovery has occurred or when it is safe to return to play. In accordance with the LVHN concussion policy and procedures, the following criteria must be met before beginning any physical activity:

1. **THE ATHLETE MUST BE SYMPTOM FREE** (without the use of medications)
2. ImPACT results must fall within normal limits when compared to baseline (if applicable)
3. Clearance by a qualified clinician to begin activity progression (See below for Activity Progression)

The asymptomatic period of any concussion may be extended at the discretion of the physicians and athletic trainer.

Once all of the above criteria have been met, the athlete will gradually return to play, by completing the Zurich Return to Activity Progression.

What is the Zurich Return to Activity Progression?

STEP 1: No activity until symptoms resolve completely
STEP 2: Light aerobic activity (ie stationary bike, elliptical machine)
STEP3: Moderate aerobic exercise (ie dynamic warm-up, jogging)
STEP 4: Functional exercises (sprinting, agility, non-contact skills)
STEP 5: Non-contact practice
STEP 6: Full contact practice
STEP 7: Full game/competition

The Zurich Progression involves a 24-hour period for each step. If symptoms return at any point during the return to play process, the athlete will not progress until symptoms have fully resolved.

** NOTE: If an athlete is being treated by a non-LVHN physician, the athlete's clearance to return to participation must still be in accordance with the above criteria. Any clearance notes that conflict with the above criteria will not be accepted.*

If you have any questions, comments or concerns, please feel free to contact Salisbury certified athletic trainers:

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