



McKinney Youth Soccer Concussion Policy

The following protocol is based on the 2017 Berlin CISG Consensus Statement and is consistent with guidelines from the US Centers for Disease Control (CDC).

Definition of Concussion

- A concussion is a brain injury.
- A concussion may be caused either by a direct blow to the head, face, neck, or an indirect blow elsewhere on the body, which causes force to be transmitted to the head.
- A concussion is a metabolic injury: the force applied to the brain causes a chemical exchange within the brain that results in a complex physiological process.
- Loss of consciousness MAY occur but is NOT necessary for concussion. Most concussions will NOT sustain loss of consciousness.
- A concussion results in a diverse set of clinical signs and symptoms.
- The symptoms of concussion may not appear immediately: it may take hours or even days for the symptoms to become apparent.
- Concussions are not visible on traditional neuroimaging (CT scans, MRI). Neuroimaging may be suggested to rule out a more significant neurologic event.
- Neuropsychological or neurocognitive tests may be used to detect abnormalities in thinking abilities caused by concussion. However, these tests are only one part of the return to play decision process and should be interpreted by a qualified neuropsychologist.

Signs & Symptoms of Concussion

Visible Signs (What a coach or parent might observe):

- Loss of consciousness (occurs <10% of all concussions!)
- Slow to get up
- Unsteady gait
- Grabbing/clutching head
- Appearing dazed or stunned, disoriented or confused
- Moving clumsily
- Vomiting

Red Flag Symptoms (Refer to ED IMMEDIATELY):

- Headache increasing in intensity
- Vomiting uncontrollably
- Unequal/dilated pupils
- Blurry/double vision
- Slurred speech
- Seizures
- Decreasing consciousness
- Irregular pulse or respiration



Symptoms (What a player reports or what is observed during evaluation):

Physical: Headache, dizziness, nausea, unsteadiness/loss of balance, fogginess, sensitivity to light or noise, blurred or double vision

Cognitive: Disorientation (to time, place, date), confusion, difficulty remembering events that occurred prior to the injury or immediately after the injury, unaware of game specifics (name/color of opponent, score, details of last play), difficulty concentrating/focusing

Emotional: Feeling more emotional, irritability, depressed mood, increased anxiety, sadness, increased frustration

Sleep: Increased fatigue, drowsiness, difficulty falling asleep or staying asleep, sleeping too much or too little

What to do if you suspect a concussion has occurred:

- 1. Remove athlete from play immediately.** Research suggests athletes who remain in play for even 15 minutes require twice as long to recover than athletes who are removed immediately. ***Any athlete with suspected concussion should NOT return to play in the same day.***
- 2. Evaluation.** All athletes suspected of having a concussion should be evaluated by a neuropsychologist or physician with specialty training in sport-related concussions. Having obtained a medical degree or certification in neuropsychology does not in itself indicate that the professional is adequately trained for the evaluation of concussion. The athlete should not return to play until the neuropsychologist or physician provides written clearance for return to play. The concussion evaluation should include a treatment plan that outlines what the athlete can and cannot do in terms of physical activity, academic accommodations (as needed), and any treatments the athlete needs.
- 3. Neuropsychological Testing.** Comprehensive concussion evaluations should include neuropsychological or neurocognitive testing. These tests are typically administered on the computer and measure “thinking” abilities such as learning, memory, problem solving, information processing speed and reaction time, which are often -but not always -affected by concussion. It is strongly recommended that all players in the McKinney Youth Soccer League have a baseline test



administered pre-season. While there are many baseline tests available, the ImPACT test is the most widely used and is utilized by McKinney ISD for student athletes. If a player does not already have a baseline test through school, tests are available through Baylor Scott & White, though a baseline test is not necessary for evaluation and treatment. Neurocognitive tests are best interpreted by a neuropsychologist trained in sport-related concussion.

- 4. Graded Return to Play (RTP).** Once an athlete has been symptom free for a minimum of 24 hours, he or she should undergo a graded exercise program prior to return to competition/contact activity. The neuropsychologist or physician overseeing care should help you to navigate this process and will provide resources for completion of the protocol either in the clinic setting or within the club setting. In general, there are 5 stages of RTP, with an athlete progressing from one stage to the next every 24 hours as long as they remain symptom free.

Stage 1: Light aerobic exercise (e.g. stationary bicycle) for 15-20 minutes (athlete does not typically break a sweat)

Stage 2: Moderate intensity aerobic exercise (30 minutes: moderate intensity, breaking a sweat).

Stage 3: Aggressive intensity aerobic exercise (30 minutes: sprinting, dynamic movement, full cardio exertion).

Stage 4: Sport-specific training (ball handling, passing, running, NO heading).

Stage 5: Full contact training with heading (if age appropriate). Athlete should not return to play until 24 hours after the completion of stage 5.

Return to Play:

Return to full contact play only occurs after (1) player is symptom free at rest, (2) player remains symptom free after graded exercise progression, and (3) the player is judged to be at his or her neurocognitive baseline. At this point the appropriately trained neuropsychologist or physician should provide a written note clearing the player for full-contact play.