A concussion is a mild traumatic brain injury (mTBI) that disrupts normal functioning of the brain. It can cause significant and sustained neurological impairment affecting mood, problem solving, planning, memory, attention, concentration and behavior. Most concussions do not involve loss of consciousness; you can sustain a concussion even if you do not hit your head. A blow to the body can transmit an impulsive force to the brain and cause concussion.

**New Jersey's law (P.L. 2010, Chapter 94) mandates measures to be taken by public and private schools to protect the safety of their K012 student-athletes involved with interscholastic sports. The law also states that non-school youth sport organizations that use public and private school facilities must have a Compliance Agreement with the schools agreeing to meet the schools’ policies in order for the schools to be provided with liability protection for incidents involving those youth sport organizations. As a result, youth sport organizations are typically required by these Compliance Agreements to:**

1. have their coaches complete a concussion education course,
2. distribute a concussion fact sheet to parents/guardians of youth sport participants, and obtain a signed acknowledgement from each parent/guardian and each athlete that they have received the fact sheet, and
3. adhere to the policy of immediately removing any youth sport athlete suspected of sustaining a concussion from practice or competition until that athlete has written clearance from a physician trained in the evaluation and management of concussion.

**Signs of concussion that can be observed by teammate, coaches, or parents/guardians:**
- appears dazed, stunned or disoriented
- demonstrates short-term memory difficulties (ex, unsure of game scores, or whether they are at a practice or game)
- exhibits difficulties with balance, coordination, concentration and/or attention
- answers simple questions slowly or inaccurately
- has any loss of consciousness, however brief
- demonstrates behavioral or personality changes
- is unable to recall events just prior to or directly after the hit or fall

**Symptoms of Concussion that may be reported by youth sport athlete:**
- headache
- nausea/vomiting
- balance problems and/or dizziness
- double vision or changes in vision
- sensitivity to light and/or sound
- feeling foggy or sluggish
- difficulty concentrating and/or remembering
- irritability and or/confusion

**What should a youth sport athlete do if they have a concussion?**
- Don't hide it!
- Go to the doctor and follow the treatment plan.
- Take time to recover; if you have a concussion, your brain needs time to heal.
- Rest, especially for the first few days. Cognitive rest is just as important as physical rest.
- Excessive reading, texting, testing and watching movies can exacerbate symptoms.
- Use a symptom chart to track your symptoms so that the doctor can see how symptoms have changed over time.
- Listen to your body; stop any activity that causes your symptoms to get worse.

**What are the risks?**
- Continuing to play while having symptoms of a concussion makes you four to six times more likely to experience a second concussion and can prolong recovery.
- Second Impact Syndrome, although rare, can occur during a period of vulnerability after a concussion, when even a modest impact can have devastating consequences. Second Impact Syndrome (SIS) can lead to severe impairment and even death.

**Additional Resources:**
sportsconcussion.com youthsports.rutgers.edu cdc.gov/headsup atsnj.org
Return to School
A student must successfully return to normal activities before they are able to return to sports. The chart below provides guidance for how to gradually return to schoolwork without exacerbating symptoms. Does your school have a Concussion Management Team?

### Table 1 – Graduated “Return-to-School” Strategy

<table>
<thead>
<tr>
<th>Stage</th>
<th>Aim</th>
<th>Activity</th>
<th>Goal of Each Step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Daily activities at home that do not give the child symptoms</td>
<td>Typical activities of the child during the day as long as they do not increase symptoms (e.g., reading, texting, screen time). Start with 5-15 minutes at a time and gradually build up</td>
<td>Gradual return to typical activities.</td>
</tr>
<tr>
<td>2</td>
<td>School activities</td>
<td>Homework, reading or other cognitive activities outside of the classroom</td>
<td>Increase tolerance to cognitive work</td>
</tr>
<tr>
<td>3</td>
<td>Return to school part-time</td>
<td>Gradual introduction of schoolwork. May need to start with a partial school day or with increased breaks during the day.</td>
<td>Increase academic activities</td>
</tr>
<tr>
<td>4</td>
<td>Return to school full-time</td>
<td>Gradually progress school activities until a full day can be tolerated.</td>
<td>Return to full academic activities and catch up on missed work</td>
</tr>
</tbody>
</table>

*Berlin Consensus Statement (2016)*

Return to Play
Once a student successfully returns to normal academic activities for 24 hours without experiencing any concussion symptoms, the Return to Play protocol below may begin prior to return to full sport activities.

### Table 2 – Graduated “Return-to-Sport” (RTS) Strategy

<table>
<thead>
<tr>
<th>Stage</th>
<th>Aim</th>
<th>Activity</th>
<th>Goal of Each Step</th>
<th>Goal of Each Step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Symptom limited activity</td>
<td>Daily activities that do not provoke symptoms</td>
<td>Gradual reintroduction of work/school activities.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Light aerobic exercises</td>
<td>Walking or stationary cycling at slow to medium pace. No resistance training.</td>
<td>Increase heart rate</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Sport-specific exercise</td>
<td>Running or skating drills. No head impact activities.</td>
<td>Add movement</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Non-contact training drills</td>
<td>Harder training drills; e.g., passing drills. May start progressive resistance training.</td>
<td>Exercise, coordination and increased thinking</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Full contact practice</td>
<td>Following medical clearance, participate in normal training activities</td>
<td>Restore confidence and assess functional skills by coaching staff</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Return to sport</td>
<td>Normal game play</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: An initial period of 24-48 hours of both physical rest and cognitive rest is recommended before beginning the RTS progression. There should be at least 24 hours (or longer) for each step of the progression. If any symptoms worsen during exercise, the athlete should go back to the previous step. Resistance training should be added only in the later stages (stage 3 or 4 at the earliest). If symptoms are persistent (e.g., more than 10-14 days in adults and more than 1 month in children), the athlete should be referred to a healthcare professional who is an expert in the management of concussion.*

*Berlin Consensus Statement (2016)*

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Signature of youth sport athlete

Print youth sport athlete’s name

Date

Signature of parent/guardian

Print parent/guardian’s name

Date