

BSD Athletics & Activities - Concussions and Head Injuries

BSD Policy 3422 and Procedure 3422P

In order to better manage concussions sustained by our student athletes, the Bellevue School District (BSD) utilizes a software tool called ImPACT (Immediate Post Concussion Assessment and Cognitive Testing) to help diagnose and manage concussions. The ImPACT test is a computerized test to measure cognitive function of the brain primarily memory and reaction time. If a student athlete is believed to have suffered a head injury during competition, ImPACT is used to help determine the severity of head injury and when the injury has fully healed. ImPACT testing is 95% accurate in detecting deficits in brain function (measured from within hours to a few days) following a concussion.

HOW IMPACT TESTING IS USED

1. Baseline testing is required for BSD student athletes in 'contact' sports to establish a basis for comparison if a concussion is suspected. Student athletes complete a baseline ImPACT test prior to the competitive season by the Athletic Trainer.
2. If and when a concussion is suspected the Athletic Trainer will repeat a post-concussion ImPACT test within 24-72 hours.
3. The Athletic Trainer will then contact a credentialed ImPACT consultant who will review the results of the repeat ImPACT test and compare this to the baseline results. The consultant will then communicate with the school Certified Athletic Trainer as to whether there is or is not a concussion. If there is a concussion, there may need to be communication between the student athlete and a credentialed ImPACT consultant to review the results of the ImPACT test and discuss a potential treatment program. Part of this discussion could cover academic accommodations if necessary for the student athlete during recovery.

We are excited to have implemented this program given that it provides us the best available information for managing concussions and preventing potential brain damage that can occur with multiple concussions. The BSD administration, coaching, and athletic training staffs are striving to keep your child's health and safety at the forefront of the student athletic experience.

THE IMPACT TEST

The computerized exam is given to student athletes before beginning contact sport practice or competition. This simple, non-invasive test is set up in "video-game" type format and takes approximately 20 minutes to complete and poses no risks to the student athlete. Essentially, the ImPACT test is a preseason physical of the brain. It tracks information such as memory, reaction time, speed and concentration. It, however, is not an IQ test and has no application outside of concussion management and will not be used for any other purposes than for the care of your child should they suffer a concussion. For more information, [go to ImPACTtest.com](http://go.to/ImPACTtest.com).

Concussions

A concussion is a brain injury and all brain injuries are serious. They are caused by a bump, blow or jolt to the head, or by a blow to another part of the body with the force transmitted to the head. The brain basically hits the front, back and/or sides of the skull which causes injury. These are not structural or tearing injuries which is why MRI and CT scans are not particularly helpful. You can't see a concussion and most sports concussions occur without loss of consciousness.

Concussions range from mild to severe and can disrupt the way the brain normally works. They affect the cognitive centers of the brain, primarily memory and reaction time. Even though most concussions are mild, all concussions are potentially serious and may result in complications including prolonged brain damage and death if not recognized and managed properly. In other words, even a "ding" or a bump on the head can be serious. The risk of catastrophic injury, or death, resulting from a concussion or brain injury is significantly increased if not properly evaluated and managed.

STATISTICS

According to the Washington State House Bill (1999) concussions are one of the most commonly reported injuries among children and adolescents who participate in sports and recreational activities. The Centers for Disease Control and Prevention estimate that as many as 3,900,000 sports-related and recreation-related concussions occur in the United States each year.

The incidence of concussion overall in all sports is approximately 9 – 10%. Sports with a higher incidence (approximately 12- 13%) include football, hockey, lacrosse and women soccer. The brain is not fully mature until age 19, therefore adolescents, particularly females, are more

susceptible to concussions, including recurrent concussions. NOTE: Adolescent female athletes that play soccer and lacrosse have some of the highest incidence of concussions.

SYMPTOMS & SIGNS

Symptoms and signs of concussions may show up right after the injury or can take hours or days to fully appear.

Symptoms may include one or more of the following:

- Headaches
- Sadness
- Irritability
- Drowsiness
- Neck pain
- Amnesia
- Confusion
- More emotional
- Feeling foggy or groggy
- Nausea or vomiting
- Change in sleep patterns
- “Pressure in head”
- “Don’t feel right”
- Fatigue or low energy
- Feeling sluggish or slowed down
- Sensitivity to light or noise
- Nervousness or anxiety
- Balance problems or dizziness
- Blurred, double or fuzzy vision
- Repeating the same question/comment
- Concentration or memory problems (forgetting plays)

Signs observed by teammates, parents and coaches include:

- Appears daze
- Loses consciousness
- Confused about assignment
- Forgets plays
- Is unsure of game, score or opponent
- Vacant facial expression
- Answers questions slowly
- Slurred speech
- Shows behavior or personality changes
- Can’t recall events prior to hit
- Can’t recall events after hit
- Seizures or convulsions
- Any change in typical behavior or personality
- Moves clumsily or displays loss of coordination

If you think your child has suffered a concussion:

Any student athlete even suspected of suffering a concussion should be removed from the game or practice immediately. No student athlete may return to activity after an apparent head injury or concussion, regardless of how mild it seems or how quickly symptoms clear, without medical clearance. Close observation of the student athlete should continue for several hours.

If your student completes a competition without symptoms and later reports or any symptoms of concussion, or if you notice the symptoms or signs of concussion yourself, seek medical attention right away. Inform the coach if you think your child may have a concussion. If medical attention is sought prior to contact with your school, please communicate with the Coach, Athletic Trainer and Athletic Director post appointment to begin the team care process. There is a list of possible care providers listed below.

Remember it is better to miss one game than miss the entire season. When in doubt, the student athlete should sit out.

ZACKERY LYSTEDT LAW

The “Zackery Lystedt Law” in Washington requires the consistent and uniform implementation of long and well-established return to play concussion guidelines that have been recommended for several years. “A youth athlete who is suspected of sustaining a concussion or head injury in a practice or game shall be removed from competition at that time” AND “...may not return to play until the athlete is evaluated by a licensed health care provider trained in the evaluation and management of concussion and received written clearance to return to play from that health care provider”.

RISKS OF PLAYING WITH A CONCUSSION

Student athletes with the signs and symptoms of concussion should be removed from play immediately. Continuing to play with the signs and symptoms of a concussion leaves the young athlete especially vulnerable to greater injury. There is an increased risk of significant damage from a concussion for a period of time after that concussion occurs, particularly if the athlete suffers another concussion before completely recovering from the first one. This can lead to prolonged recovery, or even to severe brain swelling (second impact syndrome) with devastating and even fatal consequences. It is well known that adolescent or teenage athlete will often under report symptoms of injuries. And concussions are no different. As a result, education of administrators, coaches, parents and students is the key for student athlete’s safety.

Return to Play Recommendation

In accordance with [BSD Policy 3422](#) and [BSD Procedure 3422](#), BSD partners with ImPACT to provide trained clinicians with neurocognitive assessment tools and services as part of determining safe return to play decisions. Through this partnership, BSD will include information from healthcare providers when a student athlete is examined post-concussion. However, final approval for the return to play protocol must include a recommendation from a Credentialed ImPACT Consultant. There are a number of Credentialed ImPACT Consultants from which families can choose to visit. As always, a family may also choose to see their primary care physician to seek information regarding care.

CREDENTIALLED IMPACT CONSULTANTS:

- [Swedish Spine, Sports & Musculoskeletal Medicine](#) – CIC PASSPORT
Renee Low, PhD, CIC
1600 East Jefferson St Suite 300 Seattle, WA 98122 PHONE: (425) 498-2272 [Get Directions](#)
- [Washington Institute Of Sports Medicine](#) – CIC
Thomas Depuydt, MD, CIC
12707 120th Ave NE Ste 100 Kirkland, WA 98034 PHONE: (425) 820-2110 [Get Directions](#)
- **Harborview Medical Center**
Stan Herring, MD, CIC and David Coppel, PhD, CIC
908 Jefferson Street Seattle, WA 98104 PHONE: 206-744-8000 [Get Directions](#)
- [Seattle Sports Concussion Program](#) CIC
Stan Herring, MD, CIC, David Coppel, PhD, CIC and David Breiger, PhD
4800 Sandpoint Way NE Seattle, WA 98105 PHONE: (206) 987-2109 [Get Directions](#)
**This clinic is associated with Children's Hospital*
- **Brain Centers NW**
David Burns, DACNB
2115 NW Poplar Way Issaquah, WA 98027 PHONE: (800) 688-1183 [Get Directions](#)
- **Harborview Medical Center – Pediatric Clinics**
Kyle Yasuda, MD
325 9th Ave Seattle, WA 98124 PHONE: (206)744-9511 [Get Directions](#)

LICENSED HEALTHCARE PROVIDERS

Providers that are currently allowed return-to-play authorization include:

- Medical Doctors (MD)
- Doctor of Osteopathy (DO)
- Advanced Registered Nurse Practitioners (ARNP)
- Physician Assistants (PA)
- Licensed Certified Athletic Trainers (ATC, AT/L)*

Providers that are currently not allowed provide return-to-play authorization include:

- Physical Therapists (DPT, PT, FAAOMPT)
- Physical Therapist Aides
- Chiropractors (CD)
- Dentists (DDS)

Return to Play Progression

Before the student athlete can return to full participation or competition, there is a mandatory 5-Step Return to Play Progression that each student athlete must complete. The progression begins after:

1. It is determined that the athlete is asymptomatic
2. The repeat ImPACT test scores are as good or better than the baseline scores
3. The patient's neurologic exam needs to be normal

Once the criteria have been met, it is the role and responsibility of the Certified Athletic Trainer or Athletic Director to complete the 5-Step Progression with the student athlete. Important information to remember during the implementation of the care plan includes:

- Coaches, parents, team volunteers, teachers, and other students cannot administer or oversee the progression. Information provided to the Athletic Trainer from these care team members are useful tools, but the Athletic Trainer and Athletic Director oversee the care plan.
- If symptoms should occur during one of the five stages, the student athlete is removed from that day's activities, rested, and re-evaluated 24 hours later by the Athletic Trainer. If the student athlete presents symptom-free, then the previous day's step is repeated.
- Once the student athlete has successfully completed each stage, he/she may resume full practice participation per the approval of the Athletic Trainer.
- Competition participation may only be engaged in if the student athlete has participated in at least one day of full practice prior to the match/game/meet/etc.; the actual competition cannot constitute the first full practice.

5-STEP RETURN TO PLAY PROGRESSION

Step 0	Rest until 24h symptom free	Rest and relaxation
Step 1	Light Aerobic Activity	Walking, stationary bike without resistance
Step 2	Sports- Specific Activity	Running/ Jogging – No contact activity
Step 3	Non- Contact Training Drills	Drills without possibility for contact/ may begin lt. resistance tr.
Step 4	Full Practice	Normal practice activity (full pads/ full gear)
Step 5	Full Participation	Normal game/ meet/ competition activity

BSD Agreement

The Bellevue School District believes participation in athletics improves physical fitness, coordination, self-discipline, and gives students valuable opportunities to learn important social and life skills. With this in mind it is important that we do as much as possible to create and maintain an enjoyable and safe environment. As a parent/guardian or student you play a vital role in protecting participants and helping them get the best from sport.

Player and parental education in this area is crucial, which is the reason families receive ImPACT Testing/Concussion Awareness information when registering a student for an athletics program. This information, in an agreement form, must be signed annually by the parent/guardian and student athlete prior to participation in BSD athletics. Please contact the school's Athletics Director with any questions regarding concussions. A printable Concussion Information Sheet can be found on the BSD Athletics & Activities, Concussion webpage (<https://bsd405.org/departments/athletics-activities/concussions/>). Please print and refer to it regularly.