

# Assessing & Managing Injury, Concussions

All injuries should be evaluated. If a brain or head injury is suspected, our evaluation process is on the leading edge

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# What is a injury? What's to know?

**Early recognition, proper rest & medical evaluation are necessary.**

- Athletic trainers are licensed healthcare providers providing care and accessible during a part of JP's school day and during Athletics activity.
- Athletic trainers are often seeing injuries right as they happen or soon after. They are skilled in injury prevention, evaluation and treatment/ rehabilitation.
  - Athletes are asked to self-advocate, alert coach, parents to scenario & seek the JP AT for assistance.
  - AT's collaborate, and refer to other healthcare professionals when needed. Detailed written information exchanges from providers seen are necessary for continuity of care.
- The forces in sports needed to create an injury do not have to be great. It may be unexpected. You accept that injury risk in playing sports.
- Significant health concerns can arise & be immediately recognized, while some may develop symptoms over hours/ days. Concussions especially evolve symptoms at onset and over the following few days of time.
- Once an injury happens, handling any and all of them properly matters greatly to a student-athlete's short and long term health.

# Thinking long term, for all injuries

- Two medical staff are here at JP to help. A School Nurse (RN) & an licensed Athletic Trainer (AT) are available daily on weekdays. We collaborate.
- Each case is unique. Different complications, dangers can arise if prompt decisions are delayed. Injury always takes prompt & direct communication.
- Care varies, often depending on the situation and where you start looking for answers and with whom. Specialists like Athletic Trainers exist for reasons in healthcare, especially within high schools.
- Concussion protocols and medical best practices, plus educational protocols & guidelines exist, as required by law, legal regulations and by school policy
- **All involved agreeing on the injury being recovered** to resume sports participation: athlete, parent, athletic trainer, treating physician, & coach
  - reinjury risks are real, some complications can be avoided

# What is a coach's role with injuries?

- Our coaches are asked to facilitate first aid & seeking further help.
- JP coaches maintain current CPR certification, rely on & collaborate with ATs for a student-athlete's best interests.
- In medical situations, removal from play & alerting the JP AT are usual and possible. Facilitating parental contact is feasible too.
- Honest transparency of managing the injury situation helps everyone involved.
- The athletic trainer directs and provides care, including a progressive process for return to play decisions, most especially after a diagnosed concussion.
  - A coach decides from a coach's perspective only once physical readiness by the Athletic Trainer (and/or physician) is determined.
  - Parental input does matter & requested via email. An athlete's opinion does matter as well. Phone conversations can be helpful.
  - Written statements from any involved healthcare provider are needed when such visits occur. Diagnosis and care planning details are sought, for meeting the care needs.

# What makes a concussion different?

- A concussion is a brain injury resulting from a bump, blow or jolt to the head or body. Loss of consciousness may or may not happen.
  - Signs & symptoms of concussion may develop immediately and over a period of several days. Early recognition is vitally important.
  - This injury affects function. No scans/ MRIs can detect it.
- Sports often have greater risks, as would becoming a new driver
- Promptly reporting a concern & getting evaluated by concussion trained professionals matters. Alert the JP AT asap with details known.
  - Teen brains are growing, and nobody wants long-lasting troubles or disability or worse resulting from this injury.
  - *Please do not expect only one interaction with healthcare and school personnel when this kind of injury occurs.*
- Efficient communications have to happen between the athlete, parent, medical staff, and JP concussion care team (AT, nurse, counselor)
  - Frequent interactions and follow-ups are necessary
  - Teachers and coaches receive need to know info updates

# What should raise suspicion, concern for concussion?

- In short, you know “something isn’t right” about what you’re child is feeling, stating and/or you are observing after a blow to the head or body.
- The list of concussion signs/ symptoms is long & can develop immediately and over several days, but they tend to cluster in/ among 4 categories:
  - **Physical (person feels headache, nauseated, dizzy, unsteadiness/ balance problems, sensitivity to lights/ noises, among other things)**
  - **Emotional (heightened/ unusual emotions, abnormal for person)**
  - **Cognitive (harder to think, read, remember, pay attention, etc)**
  - **Sleep disturbances (may take time to begin seeing this)**

# “Do I go to the Emergency Room?”

- If concerns are serious in an acute situation, a visit to the Emergency Department may be appropriate.
  - Many sports related injuries can wait & arrange an appropriate physician office appointment soon.
  - Some scenarios could better be handled by ER & with follow-up
- Follow-up contact asap with the JP athletic trainer is expected with any injury seeking care elsewhere. *Next step actions and decisions depend on the details.*
- Athletic trainers collaborate with many other providers, including ER professionals, orthopedics, primary care providers, concussion specialists
  - **Physician/ provider guidance directives should be given in writing & be specific.**
  - **This is not about getting “excused” from school/ sports.**
- In sport competitions, the host school may have an athletic trainer facilitating conversations/ next steps
  - Sometimes the findings on the initial evaluation are not conclusive.

# So what is “ImPACT”?

- **ImmEDIATE Post concussion Assessment and Cognitive Testing**
- A non-invasive computer test developed by researchers & clinicians at the University of Pittsburgh Medical Center. Essentially, it’s “preseason physical of the brain”
- It examines neurocognitive brain functions, such as verbal & visual memory, reaction time, brain processing speed, and concentration/ attention span.
  - **OPTIONS students may seek a waiver of this requirement for JP sports. Some of their parents may opt into doing it**
- The data is securely maintained. Case by case consultations are arranged with the care providers as necessary.
- Data can be retrieved to share with local concussion specialists. This enhances medical care collaboration efforts for our students.



# Using ImPACT software to help assess

- Clinical evaluations and a computerized tests may be used to assess a head/brain injury
- Computerized baseline tests are done with ImPACT, and re-tests happen when concussion is suspected
  - **It is best to compare against your child's 'normal' precisely because the adolescent brain is growing. Medical history differs.**
  - Baselines are done as
    - a JP student-athlete enters into the first season
    - an update for juniors if he/ she is still in sports
    - and one year out from the season of a concussion injury occurrence.
    - or parents may ask for it annually if desired
- JP students not involved in our Athletic department can still get a baseline & care facilitated
  - Some local club/ sports leagues require the baselines.
- It's not the only tool or method used in the assessment process for such injury

# “If in doubt, sit them out.” Then seek a medical evaluation.

- Coaches may witness a cause for concern during play & pull the athlete out of activity. Referees and teachers might too.
- The **student-athlete should promptly visit the athletic trainer**, then that day or the next school/ athletic day to seek evaluation.
- A **parent or coach may contact the athletic trainer** to identify the initial concern or relay actions that have already been taken.
  - Communicate the concern quickly, a prompt evaluation can be arranged.
  - Exercise should not be happening.
  - Instances happen in life outside of school, at away events, etc.
- Please **contact the JP nurse and counselor of a concussion diagnosis within 24-48 hours** of onset.
  - Written guidance from your healthcare professionals are essential.
  - Parents are expected to cooperate & facilitate such actions.
  - Students will be responsible for their school work progress, but a strategy will be crafted to help the recovery.

# With concussion, we use a “management team” approach

- JP uses particular staff to assist with the varied strategies. It's a team tactic: AT, Nurse and counselor. It helps the student, parents & all our teachers navigating recovery.
  - Medical point person for student cases is the nurse
  - Medical point person for athletes is the AT
  - Guidance counselors help with the emotional, academic elements.
- ***We need written guidance from the medical providers that get engaged. Why?***
  - Strategies differ for the patient's needs
  - Students have 8 teachers that might adjust differently for essential learning to continue as a student heals
  - Recovery expectations should be temporary over a few weeks.
  - Virginia laws & school policies exist specifically about this injury
  - Recovery timelines can vary, especially if complications arise
    - If no timetables are set, we operate in 2 week timelines for updates to occur and progress to be reached

## *Concussion details to know & why we have a “protocol”*

- **We follow best practices with educational efforts, baseline testing, using a “management team” approach, and cooperating with our families. Having a protocol sets a path pattern for all.**
- *If a child does not report the situation right away, a parent, teacher or coach may be among the first adults to observe concerns to examine.*
- Students have unique demands academically. Student-athletes will need assistance to rest appropriately & recover with a strategy.
- School medical staff may evaluate the student, then advise a parent to monitor & make a doctor appointment BEFORE returning to school is attempted.
- A common tactic with Pediatricians is monitored time at home resting for 1-2 days with avoidance of cognitive demands. Some may advise on academic accommodations for use in school, or refer to a specialist.

# More a parent needs to know...

- There are goals along a concussion injury path to recovery:
  - get back to being the “normal person” (eat, sleep, interactions)
  - then get back to the “normal student”  
(do homework, attending school, time spent on doing X task)
  - then the “normal athlete”  
(progress is made over time, with rehab efforts not just rest time)
- Concussions have added layers in the recovery:
  - Teachers get alerted via the nurse, and the student, parent raising the awareness and making/ gaining recovery progress.
    - Teachers are encouraged to be firm but kind, and will follow what medically gets advised on timelines.
  - Interactions are repeated over weeks, so updates remain pertinent and timely throughout the recovery process
  - Concussion care may necessitate specialists getting involved
- Struggles may be hard to describe... so help raise the concern. We cannot address what we don't know about.

# Returning from concussion/ injury to sports participation

- **A staged and progressive return-to-play process begins** when appropriate, directed by the athletic trainer with physician input
  - Symptoms & school day efforts normalizing. Improvements are significantly better now compared to onset
  - For concussion, this is discussed specifically as recovery gets past week 1-2, as exercise & ImPACT tests get planned/ accomplished
- Accommodations/ restrictions advised would apply to sports and PE class, house activity.
- **Return to sport decisions are made by the athletic trainer, and all involved should be in agreement.**
  - Returning too early can lead to re-injury, perhaps even harmful or life-threatening consequences depending on scenarios
  - **AT consults with the treating physician(s), parents, athlete and coach. Physician input needs to be written.**
  - For concussion cases, parental permission to resume sports activity is required in writing (email)

# Continued layers to know re: concussion

- Cognitive effort in school & life may strain a student trying to recover
  - A parent's contact/ discussion with the school counselor is advised within the first week, and possibly as the case resolves. Counselors help manage emotional & academic concerns.
  - The nurse & athletic trainer assist with the physical/ medical part of recovery. Consultations and rest breaks are frequently helpful, among other interventions.
  - Details differ, as do recovery strategy plans.
    - Use of a computer/ phone/ video screens require mental efforts, so controlled avoidance is helpful in the early few days- week of recovery.
    - All such matters need to be documented.
    - Challenging to adapt is a necessary part of the recovery path.
- **All involved need to agree on the injury being recovered** to resume full contact/ full go sports participation: athlete, parent, AT, treating physician/ neuropsychologist, & coach

# Summary of “Concussion protocol”

- Baselines are done with student-athletes
- Medical evaluation determines placing a student into “concussion protocol”
- **JP medical staff must receive written instructions**
- Teachers & coaches get alerted by JP medical staff & parent, athlete.
- Absences and academic accommodations may be temporarily placed, on timelines
  - Teachers are asked to cooperate with the essential intentions for academic progress, planning for makeup efforts, & grading term procedures if relevant
  - Impact tests are used to help assess/ monitor recovery
  - Controlled exercise could help the recovery, gets led by AT as appropriate
- 5 stages in the gradual return to play process- it’s a gradual & staged pattern, always used with 24 hrs between. Some cases spend more than 1 day in a stage
- **Written medical clearance lifts accommodations, enables a gradual return to sports**
  - Gathered all opinions of people involved: athlete, parent, treating physician, AT, coach to engage at a practice opportunity with full contact
  - JP Coach/ PE teacher will be notified of when to expect participation at a full contact practice or PE class.



## If/ when you have questions...

- Contact the Athletic Trainer, Annemarie Francis at 703-445-0304 or by email: [annemarie.francis@jpthegreat.org](mailto:annemarie.francis@jpthegreat.org)
- We do collaborate with orthopedists, local concussion specialists, primary care professionals regularly as well.
- Concussion specialist clinics exist in Fairfax, Richmond