

## ABC HIGH SCHOOL CONCUSSION CASE STUDY:

### Prelude:

Due to the fact that there had been a significant number of reported and unreported concussive events in their athletic program, ABC High School felt as if it was extremely important to enhance the safety and well being of all their athletes. Sandra, ABC's Athletic Director, had taken the proactive steps necessary to prevent and properly diagnose serious head injury. At the beginning of the sports season, ABC High School had utilized the Sports Concussion Institute's Prevention Intervention Program and had received doctor supervised ImpACT baseline assessments on all of their 600 athletes. Records of these reports were reviewed by SCI staff and were readily accessible in case of a concussive or related event.



### Event:

Jimmy is a 16 year old, healthy ABC High School soccer player. Like any high school athlete working towards an athletic scholarship, Jimmy played hard and took soccer very seriously. Approximately one week prior to his evaluation, Jimmy received a "head shot" to the back of his head during practice. He stated that immediately after the injury he felt disoriented and dizzy for approximately 15 minutes. He did not report these symptoms to his coach or a parent and continued with practice. Later that day he developed a mild occipital headache that persisted through the weekend. Two days later, he was unable to concentrate on his schoolwork and his headache was beginning to cause him much discomfort. The following week, he continued to participate in soccer despite increasing headache and nausea in which he neither reported to his parents or coach. Later that week, Jimmy participated in a soccer game where he "headed" the ball multiple times. During the game, his headache and nausea became more severe and he was removed from play. He sat out the second half of the game, reported his symptoms to his coach and was referred by his Athletic Trainer to see a Neurologist at the Sports Concussion Institute who would obtain a CT scan and MRI. Upon review, both tests were normal. However, due the severity of symptom reports, Jimmy was given a post-event ImpACT assessment. Jimmy's post- injury results concluded that there was significant deviation from his pre-season baseline assessment. His memory, visual motor skills, and reaction time were far below his pre-season levels. He was subsequently given a "do not return to play recommendation" and was rescheduled for a follow up. Five days later, Jimmy was evaluated for a second time. The results were reviewed by a SCI Neuropsychologist and Neurologist. At that time his memory, visual motor skills, and reaction time were back to normal baseline levels. SCI staff reported this information to Jimmy's parents, coach and athletic trainer and he was cleared to play.

### Key Points:

1. Recognizing Jimmy's deviation from his baseline can be an immediate indicator of a concussive event. This comparative review based upon initial baseline will prevent Jimmy from putting himself at risk for a more catastrophic head injury. Had ABC not been proactive in having baseline assessments, there would have been no pre-injury data to compare his new results. Therefore, the extent of his injury may have been undeterminable.
2. Failure of reporting: Although Jimmy was involved in a concussive event; he failed to report the incident to a coach or parent. Failure to report his symptoms led to the worsening of his concussion related symptoms and put him at risk for a "second impact syndrome (sometimes fatal) " given that he continued to play and "head the ball" despite a persistent headache. The SCI Prevention Intervention Program provides the necessary education and awareness for athletes and coaches to enhance the knowledge base for signs and symptoms of concussion. This leads to more accurate and timely reporting from athletes, coaches, parents and trainers.
3. SCI's Prevention Intervention Assessment Program took the guesswork out of concussion management, creating a specialized, quantifiable, evidence-based return to play decision.



Mild Head Injury Clinic  
Pain Management Clinic  
Memory Disorders Clinic

