



ATHLETES AT RISK: ARE SAN MATEO COUNTY HIGH SCHOOLS SAFEGUARDING ATHLETES FROM SERIOUS HEAD TRAUMA?

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ISSUE

What are San Mateo County high school districts doing to address head injuries among high school athletes?¹

SUMMARY

San Mateo County high school students consider athletic programs to be an important part of their school life. Through our interviews with local school representatives, the Grand Jury found that as many as 66% of students in any given high school will participate in one or more sports during the school year.²

Experts agree that sports offer many benefits to high school students.³ Athletic programs give students the opportunity to play sports that they enjoy and, at the same time, provide them with healthy physical activity. Also, athletics teach students the importance of leadership, self-discipline, pride in their school, teamwork, and how to demonstrate good sportsmanship. Another benefit of sports programs is that they provide adolescents with regular, positive after-school activity, with less time for destructive behaviors.⁴

Sports injuries, especially head injuries, have received much attention in the media recently. Reports have surfaced regularly over the past year about high-profile professional athletes who, after retiring from their sport, suffer from the effects of head trauma sustained during their athletic careers.

Professional sports teams use neurocognitive testing of athletes, which has been found to be an important tool in evaluating and treating head injuries. This type of computerized test measures brain processing speed, verbal and visual memory, and reaction time.⁵

Certified athletic trainers provide a valuable service for student athletes in the administration of the neurocognitive tests as well as in assessing student athletes who sustain head injuries.⁶

¹ While some middle school students participate in athletics at school, the programs do not have the same degree of structure as high school athletics. The Grand Jury therefore limited its study to the high school level.

² Officials from San Mateo Union High School District South San Francisco Unified School District, Carlmont High School, Terra Nova High School, Woodside High School: interviews by the Grand Jury.

³ Grace Chen, "10 Reasons Why High School Sports Benefit Students," *Public School Review*.
<http://www.publicschoolreview.com/blog/10-reasons-why-high-school-sports-benefit-students>.

⁴ Officials from Terra Nova High School, interview by the Grand Jury.

⁵ UPMC/University of Pittsburgh Center for Sports Medicine, "Baseline Concussion Testing."
<http://www.upmc.com/Services/sports-medicine/services/concussion/baseline-concussion-testing/Pages/default.aspx>.

⁶ Officials from Carlmont High School and Peninsula Athletic League: interviews by the Grand Jury.

An important part of such trainers' role is to ensure that injured athletes do not return to competition until all symptoms of their injuries are gone.

The Grand Jury found that the combination of neurocognitive testing and certified athletic trainers would provide additional protection for student athletes in San Mateo County high schools. County high school districts should explore all funding sources to provide student athletes with neurocognitive tests prior to the start of athletic competition and to hire full-time certified athletic trainers at all high schools.

BACKGROUND

The effects of sports-related head injuries is a topic receiving more attention today than ever before. Many high-profile athletes are speaking out on the subject and filing lawsuits against the National Football League (NFL) and National Collegiate Athletic Association (NCAA).⁷ Other professional athletes have tragically ended their lives because of the effects of head trauma that they sustained during their careers.⁸

Close to home, Chris Borland, linebacker for the San Francisco 49ers, announced his retirement March 2015 at age 24 because of his concern about the long-term health effects of repetitive head trauma. Borland met with prominent concussion experts prior to making his decision. He was diagnosed with two concussions during his lifetime, one while playing soccer in the eighth grade and one while playing high school football.⁹

Each year, more than 300,000 sports-related traumatic brain injuries, or concussions, occur in the United States.¹⁰ A concussion is defined as any injury to the brain that disrupts normal brain function on a temporary or permanent basis. They are typically caused by a blow or jolt to the head. As a group, teenagers have experienced a dramatic increase in head injuries. The American Academy of Pediatrics reports that concussions have risen 200% among teens aged 14-19 in the last decade.¹¹

Concussions can happen to any athlete, male or female, in any sport. However, they more often occur in collision sports such as football, rugby, or ice hockey. They are also common in contact sports that do not require helmets, such as soccer, basketball, wrestling, and lacrosse. A concussion can occur from a collision with a goalpost or a ball that has been thrown, hit, or kicked. All athletes are at risk.

⁷ "NFL, Ex-players Agree to \$765M Settlement in Concussions Suit," *Associated Press*, August 29, 2013.

<http://www.nfl.com/news/story/0ap1000000235494/article/nfl-explayers-agree-to-765m-settlement-in-concussions-suit>.

⁸ J. John Mann, MD, "Suicide in Professional Athletes: Is It Related to the Sport? The Dana Foundation, July 26, 2012.

⁹ Dan Hanzus, "San Francisco 49ers' Chris Borland Retiring from NFL," *Around the NFL*, March 18, 2015.

<http://www.nfl.com/news/story/0ap3000000479460/article/san-francisco-49ers-chris-borland-retiring-from-nfl>.

¹⁰ "Traumatic Brain Injury in the United States: Fact Sheet," Centers for Disease Control and Prevention.

http://www.cdc.gov/traumaticbraininjury/get_the_facts.html.

¹¹ "Sports Concussion Statistics," *Head Case*, accessed June 6, 2015.

http://www.headcasecompany.com/concussion_info/stats_on_concussions_sports.

According to studies by the National Federation of State High School Associations (NFHS), 7.8 million high school students participated in a sports program during the 2013-2014 school year.¹² This number represents an approximate 53% participation rate by all high school students. The fastest growing sport is girls' lacrosse; the most common sport played is basketball, and the sport that has the greatest number of participants is football.¹³

Data show that many catastrophic head injuries are a direct result of injured athletes returning to play too soon, not having fully recovered from their first injury. From a medical perspective, all concussions are considered serious, even though most occur without loss of consciousness. Recognition and proper response to concussions when they first occur can help prevent further injury or even death.¹⁴

The Centers for Disease Control issued a study of traumatic brain injuries covering the years 2001-2009, which showed that for boys and girls in the age group of 15-19 years the highest number of injuries resulted from football for boys and soccer for girls. Girls in this age group are twice as likely to sustain a concussion as boys because their necks have less stability. In addition, they have more post-concussion symptoms than boys.¹⁵

According to an Ohio State University report, the concussion rate in high school athletes doubled between 2005 and 2012.¹⁶ Other studies show that one in five high school athletes will sustain a sports concussion during the season. Of the total number of concussed students, 47% sustained the head injury while playing football.¹⁷

The Grand Jury decided to investigate head trauma among County high school athletes because of the growing body of information regarding the seriousness and long-lasting consequences of such head injuries. The Jury also wanted to investigate the tools currently being utilized by local high schools to assess athletes who have suffered some kind of head trauma.

METHODOLOGY

The Grand Jury interviewed numerous individuals including representatives of the Peninsula Athletic League, San Mateo Union High School District, Sequoia Union High School District, South San Francisco Unified School District, Cabrillo Unified School District, LaHonda-Pescadero Unified School District, Carlmont High School, Terra Nova High School, and Woodside High School. The Grand Jury also conducted online research and reviewed documents as listed in the Bibliography.

¹² "2013-14 High School Athletics Participation Survey," National Federation of State High School Associations. http://www.nfhs.org/ParticipationStatics/PDF/2013-14_Participation_Survey_PDF.pdf.

¹³ "High School Sports Participation Increases for 22nd Straight Year," *US News and World Report*. <http://www.usnews.com/education/blogs/high-school-notes/2011/09/02/high-school-sports-participation-increases-for-22nd-straight-year>.

¹⁴ John Duncan, MD, Neurosurgery, Kaiser Permanente, "The Effects of Traumatic Brain Injuries (TBI)," School Safety Forum. Hosted by Assembly Speaker Pro Tempore, Kevin Mullin, March 21, 2015, Redwood City, California.

¹⁵ A. E. Lincoln et al., "Trends in Concussion Incidence in High School Sports: A Prospective 11-Year Study," *American Journal of Sports Medicine*, January 29, 2011. <http://www.ncbi.nlm.nih.gov/pubmed/21278427>.

¹⁶ "Concussion Rate in High School Athletes More Than Doubled in 7-Year Period, U.S. Study Finds," *Science Daily*. <http://www.sciencedaily.com/releases/2014/05/140506130534.htm>.

¹⁷ "Sports Concussion Statistics," Head Case. http://www.headcasecompany.com/concussion_info/stats_on_concussions_sports.

DISCUSSION

There are three high school districts and three unified school districts in San Mateo County. Of the 18 high schools within these six districts, all currently offer sports programs for both boys and girls. These programs have expanded over the years with some high schools now offering football, baseball/softball, soccer, basketball, track and field, cross country, volleyball, lacrosse, swimming, water polo, tennis, golf, and cheerleading.

From its interviews with school representatives, the Grand Jury learned that student participation in sports varies from district to district, with one high school reporting up to 66% of its students participating in at least one sport and another reporting such participation at 30%. Studies show that approximately 20% of participating students will sustain a head injury.¹⁸ Therefore, San Mateo County high schools must take the necessary steps to identify and treat head injuries among student athletes according to established protocols.

California Interscholastic Federation

The California Interscholastic Federation (CIF) is the governing body for high school sports in California. The CIF is broken up into 10 administrative sections, based on geography. San Mateo County High Schools are located within CIF's "Central Coast Section" (Section 6), which is further subdivided into leagues.¹⁹ The high schools in San Mateo County are part of the Peninsula Athletic League (PAL), which covers virtually all of San Mateo County.

The Bylaws of the CIF establish minimum requirements for school athletics; all County high schools must abide by them. CIF Bylaw 503(H) requires that each year all athletes as well as the athlete's parent or guardian must sign and return a Concussion Information Sheet before the athlete can begin play in either practice or competition.²⁰ The Information Sheet provides basic information regarding concussions such as typical symptoms, the dangers of a concussed student continuing to play, and the recommended schedule for such an injured student returning to competition.²¹ For more detailed information, see Appendix A: NFHS: A Parent's Guide to Concussion.

CIF Bylaw 313 requires that if it is "suspected" that students have sustained a head injury, they must be immediately removed from competition and must then receive written clearance from their physician before returning to competition.²² California State Law AB 2127, effective January 1, 2015 provides that a student athlete who has been diagnosed with concussion cannot return to play sooner than seven days after having been evaluated and diagnosed by a physician. The bill urges the CIF to develop and adopt rules and protocols to implement this provision. Even with a minimum seven days, medical experts recognize that many adolescent concussion

¹⁸ "Sports Concussion Statistics," Head Case. http://www.headcasecompany.com/concussion_info/stats_on_concussions_sports.

¹⁹ La Honda-Pescadero Unified School District is an exception; it is assigned to the North Coast Section of the CIF.

²⁰ The CIF requires the Concussion Information Sheet due to California State Law AB 25, effective January 1, 2012.

²¹ "CIF Concussion Information Sheet," California Interscholastic Federation. http://static.psbins.com/v/m/h9kcq476qsedih/CIF_Concussion_Info_Sheet.pdf.

²² Ibid.

patients may take much longer to recover. According to the CIF, “returning to play too quickly may have catastrophic consequences.”²³

The CIF also issues guidelines, “CIF Concussion Return to Play (RTP) Protocol,” outlining the graduated stages for returning injured athletes to competition after they have been cleared to return to play by their physician.²⁴

Peninsula Athletic League

The Peninsula Athletic League, known as PAL, as well as individual high school districts, are expanding upon CIF Bylaws by requiring additional protocols for protecting San Mateo County high school athletes.

PAL requires that coaches of all sports complete online tests from NFHS on how to determine whether a student athlete has sustained a concussion.²⁵ Coaches are required to retest every time they renew their first aid/CPR certification.²⁶

At all football games, PAL mandates that there must be either a medical doctor, EMT unit, or a licensed/certified trainer present in order for officials to allow the game to be played.²⁷ There is no PAL requirement that medical doctors or trainers be present at any other sports; however, some San Mateo County high schools do require trainers to be present at all girls and boys soccer and basketball games in addition to football.

PAL also requires that all schools follow the “CIF Concussion Return to Play Protocol” for returning an injured athlete to competition.²⁸ The current protocol for returning injured athletes back to competition after being cleared by their physician is as follows:

- Day 1 – Light exercise, including walking or riding an exercise bike, no weight lifting
- Day 2 – Running in the gym or on the field, no helmet or other equipment
- Day 3 – Non-contact training drills in full equipment; weight training can begin
- Day 4 – Full-contact practice or training
- Day 5 – Game play

However, any “Return to Play Protocol” must comply with AB 2127, the newly enacted seven-day sit-out rule, passed by the California state legislature.

²³ “Concussions,” California Interscholastic Federation. <http://cifstate.org/sports-medicine/concussions/index>.

²⁴ “CIF Concussion Return to Play Protocol,” California Interscholastic Federation.

http://static.psb.in.com/h/2/y6wjqu3pkqbm70/CIF_Concussion_Return_to_Play_Protocol.pdf.

²⁵ “Courses,” NFHS Learn. <https://nfhslearn.com/courses>.

²⁶ Official from Peninsula Athletic League, interview by the Grand Jury.

²⁷ Ibid.

²⁸ “CIF Concussion Return to Play Protocol,” California Interscholastic Federation.

Individual school districts can require more stringent protections or protocols to be adhered to in dealing with head injuries. For example, San Mateo Union High School District (SMUHSD) requires that all student athletes will undergo neurological baseline testing and further expects that student athletes who sustain a head injury undergo a neurological retesting to determine whether they have reached their established baseline level before they return to competition.²⁹ Carlmont High School reported that they expect an injured athlete to be retested prior to returning to competition. Under all circumstances, however, no injured athletes are allowed to return to play until cleared by their physician.

Neurocognitive Testing

Neurocognitive testing measures brain processing speed, verbal and visual memory, and reaction time. The value of neurocognitive testing is that it establishes a baseline of each athlete's normal neurocognitive functioning prior to beginning athletic activity. By establishing this baseline, an athlete with a suspected head injury could then be retested to help assess the degree of injury.³⁰

Currently, only some high school districts in the County are performing neurocognitive testing and to varying degrees. Such testing is being performed by a company specializing in this area—Immediate Postconcussion Assessment & Cognitive Thinking (ImPACT). San Mateo Union High School District tests all of its student athletes. Sequoia Union High School District tests athletes participating in football, lacrosse, cheerleading, soccer, wrestling, and girls water polo. Cabrillo Unified School District, Jefferson High School District, La Honda-Pescadero Unified School District,³¹ and South San Francisco Unified School District perform no neurocognitive testing for any athletes. Half Moon Bay High School did utilize ImPACT testing for the 2012-2013 school year for football only. The costs for these tests were funded by its booster organization. The testing has not been used in the last two years due to budget constraints, but the District has expressed interest in reintroducing the testing.³²

The funding for neurocognitive tests within the Sequoia Union High School District has come through a grant from Sequoia Hospital.³³ In the San Mateo Union High School District, the district itself is funding the costs for the tests through its general fund. The high school districts that do not perform the neurocognitive tests stated that it was because of budgetary constraints.³⁴

²⁹ Official from San Mateo Union High School District, interview by the Grand Jury.

³⁰ ImPact Test. ImPact Testing and Computerized Neurocognitive Assessment Tools. <https://www.impacttest.com/about/?The-ImPACT-Test-4>. Officials from San Mateo Union High School District and Woodside High School: interviews by the Grand Jury. John Duncan, MD, Neurosurgery, Kaiser Permanente, "The Effects of Traumatic Brain Injuries (TBI)," School Safety Forum.

³¹ La Honda/Pescadero Unified School District, which has a small school population and a limited athletic program, was not aware that some high schools in San Mateo County were doing neurocognitive testing and had not researched the practice or the cost and budgetary impact.

³² Officials from Peninsula Athletic League, San Mateo Union High School District, Sequoia Union High School District, Cabrillo Unified School District, South San Francisco Unified School District, La Honda-Pescadero Unified School District, Carlmont High School, Terra Nova High School, and Woodside High School: interviews by the Grand Jury.

³³ Officials from Sequoia Union High School District, Carlmont High School, and Woodside High School: interviews by the Grand Jury.

³⁴ Representatives from Terra Nova High School, Cabrillo Unified School District, and South San Francisco Unified School District: interviews by the Grand Jury.

The neurocognitive testing method that is utilized in the above-referenced high school districts provides quick and objective analysis of student athletes' cognitive abilities after they sustain a head injury.³⁵ If a retest shows an impairment to the athlete's cognitive abilities, then the student's physician can make further evaluations and recommendations on treatment. Currently, only one of the two County high school districts that are utilizing the neurocognitive testing expects the injured student to be retested. However, if the students or parents in either school district requests it, then the injured athlete will be retested.³⁶ Sequoia Union High School District reports that 19 student athletes who sustained head injuries were retested this school year. Again, in all cases, no injured student athlete is returned to play without being cleared by his or her physician.

The expense of neurocognitive tests is minor when factored into the overall budget of any high school district. For example, the cost from ImPACT for online tests is \$1,200 for 800 baseline tests with 150 post-injury tests per school per year.³⁷ (See the ImPACT Price Sheet in Appendix B.) This \$1,200 expense would cover the annual needs of even the largest high school districts in San Mateo County. SMUHSD reported that they tested 800 students in the 2014-2015 school year.³⁸

Certified Athletic Trainers

According to the National Federation of State High School Associations, "an athletic trainer is a key component to any strategy to minimize injury risk and optimize safety for all participants."³⁹ Some San Mateo County high school districts have been able to provide this additional support for student athletes by having full- or part- time certified athletic trainers on their staff.

Certified athletic trainers are trained to recognize the symptoms of a concussion. At a minimum, to be certified these trainers must have received their BS degree in athletic training, with some also holding an MS degree. They receive their certification from an entity called the Board of Certification, Inc., which is a certifying agency for athletic trainers.⁴⁰ The presence of an athletic trainer dramatically increases the chances that a concussion will be diagnosed, which is critical to ensuring that athletes receive appropriate treatment, thereby avoiding more serious injuries including the risk of permanent brain damage.⁴¹

Cynthia LaBella, MD, reported that concussed athletes are more likely to be identified in schools with athletic trainers and thus more likely to receive proper treatment. According to research

³⁵ ImPact Test. ImPact Testing and Computerized Neurocognitive Assessment Tools. Official from the San Mateo Union High School District, interview by the Grand Jury. John Duncan, MD, Neurosurgery, Kaiser Permanente, "The Effects of Traumatic Brain Injuries (TBI)," School Safety Forum.

³⁶ Official from Woodside High School, interview by the Grand Jury.

³⁷ Purchase ImPact Test. ImPact Testing and Computerized Neurocognitive Assessment Tools. <https://www.impacttest.com/purchase/form>.

³⁸ Officials from San Mateo Union High School District, interviews by the Grand Jury.

³⁹ Brian Robinson, "The Value of the Secondary School Athletic Trainer," National Federation of State High School Associations, March 10, 2015. <https://www.nfhs.org/articles/the-value-of-the-secondary-school-athletic-trainer/>.

⁴⁰ Board of Certification for the Athletic Trainer. <http://www.bocatc.org/>.

⁴¹ Lindsey Barton Straus, "Athletic Trainer Plays Critical and Unique Role in Concussion Safety," September 6, 2014. MomsTeam. <http://www.momsteam.com/health-safety/athletic-trainer-plays-key-role-in-concussion-recognition-evaluation-on-sports-sideline>.

presented at the American Academy of Pediatrics National Conference in 2012, concussions were eight times more likely to be diagnosed in girls' high school soccer and 4.5 times higher in girls' basketball in high schools with athletic trainers than in those without.⁴² The trainer is onsite and can assess the degree of head injury quickly, which helps to minimize the chances of repetitive head injuries resulting in an impairment of cognitive skill.⁴³

Only some high school districts have full-time certified trainers on the staff of their athletic departments. The Sequoia Union High School District has provided funding for certified trainers (30 hours per week) from Palo Alto Medical Foundation who are assigned to all high schools in the district.⁴⁴ Other schools, for example, Terra Nova, reported that they subcontract for the services of an athletic trainer on an as-needed basis.

Data Collection

In attempting to gather data with respect to head injuries in San Mateo County High Schools, the Grand Jury found that there is no system in place for centralizing data collection for all schools.⁴⁵ If an injured student athlete is transported to a medical facility for treatment, a report is filed with the school district's office.⁴⁶ Trainers, coaches, or athletic directors keep records of an individual student's injuries, but general statistics are not maintained by any entity, making it difficult to determine how many head injuries are being sustained by student athletes.⁴⁷ Such a system would provide data to school districts as well as to PAL's commissioner and board of directors allowing them to evaluate and compare the rate of head injuries among districts and high schools.

Given the research on head injuries as well as the number of high-profile athletes who experience severe brain trauma later in life, some committing suicide from the resulting depression, it is clear that the sooner athletes are diagnosed and treated for brain injuries the better their chances for avoiding cognitive disabilities later in life. San Mateo County high schools continue to support athletic programs. They now need to expand support of their athletes by implementing neurocognitive testing of all athletes and provide for the staffing of certified athletic trainers at all high schools.

⁴² Cynthia LaBella, MD, "A Comparative Analysis of Injury Rates and Patterns among Girls' Soccer and Basketball Players at Schools With and Without Athletic Trainers from 2006/07-2008/09," American Academy of Pediatrics National Conference and Exhibition, October 22, 2012.

<https://aap.confex.com/aap/2012/webprogram/Paper15632.html>.

⁴³ Ibid. John Duncan, MD, Neurosurgery, Kaiser Permanente, "The Effects of Traumatic Brain Injuries (TBI)," School Safety Forum.

⁴⁴ Officials from San Mateo Union High School District, Sequoia Union High School District, Carlmont High School, Terra Nova High School, Woodside High School: interviews by the Grand Jury.

⁴⁵ Officials from Peninsula Athletic League, San Mateo Union High School District, Carlmont High School, Woodside High School: interviews by the Grand Jury.

⁴⁶ Officials of Peninsula Athletic League and Woodside High School: interviews by the Grand Jury.

⁴⁷ Officials from Peninsula Athletic League, San Mateo Union High School District, Carlmont High School, Woodside High School: interviews by the Grand Jury.

FINDINGS

- F1. Neurocognitive tests establish a baseline of the cognitive skills of student athletes prior to the beginning of athletic participation and with retesting help to ensure that students do not return to practice or competition too soon.⁴⁸ Some San Mateo County High School Districts administer these tests to athletes prior to competition and after sustaining a head injury.⁴⁹
- F2. The cost of neurocognitive testing is minimal in relation to overall school budgets.⁵⁰
- F3. Certified athletic trainers can provide an important service in protecting student athletes.⁵¹
- F4. Data regarding head injuries sustained by student athletes in San Mateo County high schools is not maintained in a central location.

RECOMMENDATIONS

The San Mateo County Grand Jury recommends that all San Mateo County high school districts and unified districts:

- R1. Require neurocognitive testing on all high school student athletes (pre- and post-injury) and provide full-time certified athletic trainers at all high school sporting events.
- R2. Seek all funding sources in order to provide for the neurocognitive testing of athletes and for the hiring of full-time certified athletic trainers at all high schools.
- R3. Collect and maintain data on head injuries sustained by high school athletes at the district level; report such data to PAL for summary and analysis, keeping all names of injured athletes confidential.

REQUEST FOR RESPONSES

Pursuant to Penal code section 933.05, the San Mateo County Civil Grand Jury requests responses as follows:

From the following governing bodies:

- San Mateo County High School Districts—R1-R3
- San Mateo County Unified School Districts—R1-R3

The governing bodies indicated above should be aware that the comment or response of the governing body must be conducted subject to the notice, agenda and open meeting requirements of the Brown Act.

⁴⁸ ImPact Test. ImPact Testing and Computerized Neurocognitive Assessment Tools. Representatives from San Mateo Union High School District and Carlmont High School: interviews by the Grand Jury.

⁴⁹ Officials from Peninsula Athletic League, San Mateo Union High School District, and Carlmont High School: interviews by the Grand Jury.

⁵⁰ Purchase ImPact Test. ImPact Testing and Computerized Neurocognitive Assessment Tools.
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⁵¹ Officials from Peninsula Athletic League, San Mateo Union High School District, and Carlmont High School: interviews by the Grand Jury.

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http://static.psbins.com/h/2/y6wjqu3pkqbm70/CIF_Concussion_Return_to_Play-Protocol.

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National Federation of State
High School Associations



A PARENT'S GUIDE TO CONCUSSION

National Federation of State High School Associations (NFHS)
Sports Medicine Advisory Committee (SMAC)

What is a concussion?

- A concussion is a brain injury which results in a temporary disruption of normal brain function. A concussion occurs when the brain is violently rocked back and forth or twisted inside the skull, typically from a blow to the head or body. An athlete does not need to lose consciousness (be “knocked-out”) to suffer a concussion, and in fact, less than ten percent of concussed athletes suffer loss of consciousness.

Concussion Facts

- A concussion is a type of traumatic brain injury. The result is a more obvious functional problem than a clear structural injury, causing it to be invisible to standard medical imaging (CT and MRI scans).
- It is estimated that over 140,000 high school athletes across the United States suffer a concussion each year. (Data from NFHS Injury Surveillance System)
- Concussions occur most frequently in football, but boys' ice hockey, boys' lacrosse, girls' soccer, girls' lacrosse and girls' basketball follow closely behind. All athletes are at risk.
- A concussion may cause multiple symptoms. Many symptoms appear immediately after the injury, while others may develop over the next several days or weeks. The symptoms may be subtle and are often difficult to fully recognize.
- Concussions can cause symptoms which interfere with school, work, and social life.
- Concussion symptoms may last from a few days to several months.
- An athlete should not return to sports or physical activity like physical education or working-out while still having symptoms from a concussion. To do so puts them at risk for prolonging symptoms and further injury.

What should I do if I think my child has had a concussion?

If an athlete is suspected of having a concussion, he or she must be immediately removed from that activity. Continuing to play or work out when experiencing concussion symptoms can lead to worsening of symptoms, increased risk for further injury and possibly death. Parents and coaches are not expected to be able to make the diagnosis of a concussion. A medical professional trained in the diagnosis and management of concussions will determine the diagnosis. However, you must be aware

⁵² “A Parent’s Guide to Concussion,” National Federation of State High School Associations, 2014 New Athletic Director Training, Health & Safety: Concussions, Physical Exams, April 2013.

of the signs and symptoms of a concussion. If you are suspicious your child has suffered a concussion, he or she must stop activity right away and be evaluated:

When in doubt, sit them out!

All student-athletes who sustain a concussion need to be evaluated by a health care professional who is experienced in concussion management. You should call your child's physician and explain what has happened and follow your physician's instructions. If your child is vomiting, has a severe headache, is having difficulty staying awake or answering simple questions, he or she should be immediately taken to the emergency department.

What are the signs and symptoms of a concussion?

SIGNS OBSERVED BY PARENTS, FRIENDS, TEACHERS OR COACHES

- Appears dazed or stunned
- Is confused about what to do
- Forgets plays
- Is unsure of game, score, or opponent
- Moves clumsily
- Answers questions slowly
- Loses consciousness
- Shows behavior or personality changes
- Can't recall events prior to hit
- Can't recall events after hit

SYMPTOMS REPORTED BY ATHLETE

- Headache
- Nausea
- Balance problems or dizziness
- Double or fuzzy vision
- Sensitivity to light or noise
- Feeling sluggish
- Feeling foggy or groggy
- Concentration or memory problems
- Confusion

When can an athlete return to play following a concussion?

After suffering a concussion, **no athlete should return to play or practice on that same day.** Previously, athletes were allowed to return to play if their symptoms resolved within 15 minutes of the injury. Studies have shown that the young brain does not recover quickly enough for an athlete to safely return to activity in such a short time.

Concerns over athletes returning to play too quickly have led state lawmakers in almost all states to pass laws stating that **no player shall return to play that day following a concussion, and the athlete must be cleared by an appropriate health-care**

professional before he or she is allowed to return to play in games or practices.

The laws typically also mandate that players, parents and coaches receive education on the dangers and recognizing the signs and symptoms of concussion.

Once an athlete no longer has symptoms of a concussion and is cleared for return to play, he or she should proceed with activity in a step-wise fashion to allow the brain to re-adjust to exertion. On average, the athlete will complete a new step each day. An example of a typical return-to-play schedule is shown below:

Day 1: Light exercise, including walking or riding an exercise bike. No weight-lifting.

Day 2: Running in the gym or on the field. No helmet or other equipment.

Day 3: Non-contact training drills in full equipment. Weight-training can begin.

Day 4: Full contact practice or training.

Day 5: Game play.

If symptoms occur at any step, the athlete should cease activity and be re-evaluated by their health care provider.

How can a concussion affect schoolwork?

Following a concussion, many student-athletes will have difficulty in school. These problems may last from days to months and often involve difficulties with short- and long-term memory, concentration and organization.

In many cases after the injury, it is best to decrease the athlete's class load early in the recovery phase. This may include staying home from school for a few days, followed by academic accommodations (such as a reduced class schedule), until the athlete has fully recovered. Decreasing the stress on the brain and not allowing the athlete to push through symptoms will shorten the recovery time.

What can I do?

- Both you and your child should learn to recognize the "Signs and Symptoms" of concussion as listed above.
- Teach your child to tell the coaching staff if he or she experiences such symptoms.
- Emphasize to administrators, coaches, teachers and other parents your concerns and expectations about concussion and safe play.
- Teach your child to tell the coaching staff if he or she suspects that a teammate has suffered a concussion.
- Ask teachers to monitor any decrease in grades or changes in behavior that could indicate a concussion.
- Report concussions that occurred during the school year to appropriate school staff. This will help in monitoring injured athletes as they move to the next season's sports.

APPENDIX B IMPACT PRICE SHEET⁵³

Individual Schools, Club, Teams or Associations

Price per year:

\$400	100 Baseline 15 Post-Injury
\$600	300 Baseline 60 Post-Injury
\$800	500 Baseline 100 Post-Injury
\$1200	800 Baseline 150 Post-Injury

District Level Pricing

Contact sales for more information on establishing a district wide account from which multiple schools within a school district can withdraw tests.

Purchase additional tests as needed.

Please contact sales for more information

Issued: June 29, 2015

⁵³ ImPact Test. ImPact Testing and Computerized Neurocognitive Assessment Tools. <https://www.impacttest.com/about/?The-ImPACT-Test-4>.



CABRILLO UNIFIED SCHOOL DISTRICT

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September 11, 2015

The Honorable Susan Etezadi,
Judge of the Superior Court
C/O Grand Jury Foreperson
Court Executive Office
Hall of Justice
400 County Center
Redwood City, CA 94063-1655
Email: grandjury@sanmateocourt.org

Dear Judge Etezadi,

The Cabrillo Unified School District (the "District") has received and reviewed the 2014-2015 Grand Jury Report entitled "Athletes at Risk: Are San Mateo County High Schools Safeguarding Athletes from Serious Head Trauma?" We appreciate the Grand Jury's interest in this matter. Having reviewed and considered the Grand Jury's Findings and Recommendations, the District responds as follows, pursuant to section 933.05 of the California Penal Code:

FINDINGS

1. *Neurocognitive tests establish a baseline of the cognitive skills of student athletes prior to the beginning of athletic participation and with retesting help to ensure that students do not return to practice or competition too soon. Some San Mateo County High School Districts administer these tests to athletes prior to competition and after sustaining a head injury. [Footnotes omitted.]*

Partially agree and partially disagree. The District agrees that one of the purposes of such testing is to establish a baseline of cognitive skills of student athletes prior to the beginning of athletic participation and that retesting may be used to help ensure student athletes who suffer head injuries do not return to practice or competition too soon. The District is unaware of the extent to which other school districts and high school sites throughout San Mateo County administer neurocognitive tests in connection with their athletic programs.

2. *The cost of neurocognitive testing is minimal in relation to overall school budgets.*

Disagree. The District is unaware of the extent to which the costs of neurocognitive testing is or should be considered minimal in relation to overall school budgets. Moreover, "minimal" is a subjective term, and various stakeholders and decision-makers may have different views about its meaning and implications with respect to proposed expenditures.

3. *Certified athletic trainers can provide an important service in protecting student athletes.*

Agree.

4. *Data regarding head injuries sustained by student athletes in San Mateo County high schools is not maintained in a central location.*

Agree. The District is unaware of any central location where data regarding head injuries suffered by San Mateo high school student athletes is maintained.

RECOMMENDATIONS

1. *Require neurocognitive testing on all high school athletes (pre- and post-injury) and provide full-time certified athletic trainers at all high school sporting events.*

The District will continue to monitor its high school student athletes. Based on the data it collects, the District will determine, within the next six months, of whether to require neurocognitive testing of some or all high school student athletes.

The District provides certified athletic trainers at certain high school athletic events. Because the risk of head injury (and other serious injury) is greater at some events and in some sports than others, and because multiple high school athletic events may be ongoing at the same time, the District decided to provide certified athletic trainers only at high school sporting events that present higher risks of injury. The District does not require athletic trainers provided at District high school sporting events to be “full time” employees of the District because certified athletic trainers can provide an important service to student athletes (see Finding #3 above), regardless of the trainers’ employment status.

2. *Seek funding sources in order to provide for neurocognitive testing of athletes and for the hiring of full-time certified athletic trainers at all high schools.*

The District will implement this recommendation insofar as it decides to provide neurocognitive testing of athletes and/or hire certified athletic trainers at its high schools.

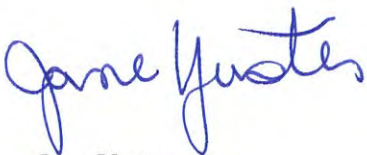
3. *Collect and maintain data on head injuries sustained by high school athletes at the district level; report such data to PAL for summary and analysis, keeping all names of injured athletes confidential.*

The District has implemented this recommendation in part. The District maintains data on head injuries sustained by high school athletes. The District would be willing to report such data (subject to measures to protect confidentiality) to PAL, assuming that PAL believes it would be valuable to maintain such data centrally and is willing to take on this role.

Both the Grand Jury Report and these responses of the District were presented to and approved by the District’s Board of Trustees on September 10, 2015.

Please do not hesitate to contact me if you have questions or require additional information.

Sincerely,



Jane Yuster
Superintendent,
Cabrillo Unified School District



Jefferson Union High School District

ADMINISTRATIVE OFFICES – SERRAMONTE DEL REY
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Rosie Tejada

Thomas H. Minshe
Superintendent

September 15, 2015

The Honorable Susan Etezadi
Judge of the Superior Court
c/o John C. Fitton
Hall of Justice
400 County Center, 2nd Floor
Redwood City, CA 94063-1655

Dear Judge Etezadi,

The Jefferson Union High School District (the "District") has received and reviewed the 2014-15 Grand Jury Report entitled "Athletes at Risk: Are San Mateo County High Schools Safeguarding Athletes from Serious Head Trauma?" We appreciate the Grand Jury's interest in this matter. Having reviewed and considered the Grand Jury's Findings and Recommendations, the District responds as follows, pursuant to section 933.05 of the California Penal Code:

FINDINGS

1. *Neurocognitive tests establish a baseline of the cognitive skills of student athletes prior to the beginning of athletic participation and with retesting help to ensure that students do not return to practice or competition too soon. Some San Mateo County High School Districts administer these tests to athletes prior to competition and after sustaining a head injury.*

Partially agree and partially disagree. The District agrees that one of the purposes of such testing is to establish a baseline of cognitive skills of student athletes prior to the beginning of athletic participation and that retesting may be used to help ensure student athletes who suffer head injuries do not return to practice or competition too soon. The District is unaware of the extent to which other school districts and high school sites throughout San Mateo County administer neurocognitive tests in connection with their athletic programs.

2. *The cost of neurocognitive testing is minimal in relation to overall school budgets.*

Disagree. The District is unaware of the extent to which the costs of neurocognitive testing is or should be considered minimal in relation to overall school budgets. Moreover, "minimal" is a subjective term, and various stakeholders and decision-makers may have different views about its meaning and implications with respect to proposed expenditures.

3. *Certified athletic trainers can provide an important service in protecting student athletes.*

Agree.

4. *Data regarding head injuries sustained by student athletes in San Mateo County high schools is not maintained in a central location.*

Agree. The District is unaware of any central location where data regarding head injuries suffered by San Mateo high school student athletes is maintained.

RECOMMENDATIONS

1. *Require neurocognitive testing on all high school athletes (pre- and post-injury) and provide full-time certified athletic trainers at all high school sporting events.*

The District will continue to monitor its high school student athletes. Based on the data it collects, the District will determine, within the next six months, of whether to require neurocognitive testing of some or all high school student athletes.

2. *Seek funding sources in order to provide for neurocognitive testing of athletes and for the hiring of full-time certified athletic trainers at all high schools.*

The District will implement this recommendation insofar as it decides to provide neurocognitive testing of athletes and/or hire certified athletic trainers at its high schools.

3. *Collect and maintain data on head injuries sustained by high school athletes at the district level; report such data to PAL for summary and analysis, keeping all names of injured athletes confidential.*

The District has implemented this recommendation in part. The District maintains data on head injuries sustained by high school athletes. The District would be willing to report such data (subject to measures to protect confidentiality) to PAL, assuming that PAL believes it would be valuable to maintain such data centrally and is willing to take on this role.

Both the Grand Jury Report and the responses of the Jefferson Union High School District were presented to and approved by the Jefferson Union High School District Board of Trustees during a public meeting on September 15, 2015.

Please do not hesitate to contact me if you have questions or require additional information.

Sincerely,



Thomas H. Minshew
Superintendent
Jefferson Union High School District



LA HONDA-PESCADERO UNIFIED SCHOOL DISTRICT
PO Box 189 • 360 Butano Cut Off, Pescadero, CA 94060
650-879-0286 • FAX 650-879-0816

Amy Wooliever, Superintendent

September 1, 2015

The Honorable Susan Etezadi
Judge of the Superior Court
Hall of Justice
400 County Center, 2nd Floor
Redwood City, CA 94063-1655

Dear Judge Etezadi,

The La Honda-Pescadero Unified School District (the "District") has received and reviewed the 2014-15 Grand Jury Report entitled "Athletes at Risk: Are San Mateo County High Schools Safeguarding Athletes from Serious Head Trauma?" We appreciate the Grand Jury's interest in this matter. Having reviewed and considered the Grand Jury's Findings and Recommendations, the District responds as follows, pursuant to section 933.05 of the California Penal Code:

FINDINGS

1. *Neurocognitive tests establish a baseline of the cognitive skills of student athletes prior to the beginning of athletic participation and with retesting help to ensure that students do not return to practice or competition too soon. Some San Mateo County High School Districts administer these tests to athletes prior to competition and after sustaining a head injury.*

Partially agree and partially disagree. The District agrees that one of the purposes of such testing is to establish a baseline of cognitive skills of student athletes prior to the beginning of athletic participation and that retesting may be used to help ensure student athletes who suffer head injuries do not return to practice or competition too soon. The District is unaware of the extent to which school districts and high school sites throughout San Mateo County administer neurocognitive tests in connection with their athletic programs.

2. *The cost of neurocognitive testing is minimal in relation to overall school budgets.*

Disagree. The District is unaware of the extent to which the costs of neurocognitive testing is or should be considered minimal in relation to overall school budgets.

3. *Certified athletic trainers can provide an important service in protecting student athletes.*

Agree.

4. *Data regarding head injuries sustained by student athletes in San Mateo County high schools is not maintained in a central location.*

Agree. The District is unaware of any central location where data regarding head injuries suffered by San Mateo high school student athletes is maintained.

RECOMMENDATIONS [All School Districts]

1. *Require neurocognitive testing on all high school athletes (pre- and post-injury) and provide full-time certified athletic trainers at all high school sporting events.*

The District will continue to monitor its high school student athletes. Based on the data it collects, the District will determine, within the next six months, of whether to require neurocognitive testing of some or all high school student athletes and whether to provide certified athletic trainers at District high school sporting events.

2. *Seek funding sources in order to provide for neurocognitive testing of athletes and for the hiring of full-time certified athletic trainers at all high schools.*

The District will implement this recommendation insofar as it decides to provide neurocognitive testing of athletes and/or hire certified athletic trainers at its high schools.

3. *Collect and maintain data on head injuries sustained by high school athletes at the district level; report such data to PAL for summary and analysis, keeping all names of injured athletes confidential.*

The District has implemented this recommendation in part. The District maintains data on head injuries sustained by high school athletes. The District is not a member school of PAL. The district belongs to the Bay Area Conference. The District has not discussed centralized data collection with BAC officials.

Both the Grand Jury Report and these responses of the District were presented to and approved by the District's Board of Trustees on September 10, 2015.

Please do not hesitate to contact me if you have questions or require additional information.

Sincerely,



Amy Wooliever
La Honda-Pescadero Unified School District

San Mateo Union High School District

Kevin Skelly, Ph.D., Superintendent

Elizabeth McManus, Deputy Superintendent Business Services

Kirk Black, Ed.D., Deputy Superintendent Human Resources & Instruction

KindyLee Mackamul, Associate Superintendent Student Services



September 10, 2015

The Honorable Susan Etezadi
Judge of the Superior Court
c/o Charlene Kresevich
Hall of Justice
400 County Center, 2nd Floor
Redwood City, CA 94063-1655

Dear Judge Etezadi,

The San Mateo Union High School District (the "District") has received and reviewed the 2014-15 Grand Jury Report entitled "Athletes at Risk: Are San Mateo County High Schools Safeguarding Athletes from Serious Head Trauma?" We appreciate the Grand Jury's interest in this matter. Having reviewed and considered the Grand Jury's Findings and Recommendations, the District responds as follows, pursuant to section 933.05 of the California Penal Code:

FINDINGS

1. Neurocognitive tests establish a baseline of the cognitive skills of student athletes prior to the beginning of athletic participation and with retesting help to ensure that students do not return to practice or competition too soon. Some San Mateo County High School Districts administer these tests to athletes prior to competition and after sustaining a head injury. [Footnotes omitted.]

Partially agree. The District agrees that one of the purposes of such testing is to establish a baseline of cognitive skills of student athletes prior to the beginning of athletic participation and that retesting may be used to help ensure student athletes who suffer head injuries do not return to practice or competition too soon. The District is unaware of the extent to which other school districts and high school sites throughout San Mateo County administer neurocognitive tests in connection with their athletic programs.

2. The cost of neurocognitive testing is minimal in relation to overall school budgets.

Disagree. The District is unaware of the extent to which the costs of neurocognitive testing is or should be considered minimal in relation to overall school budgets. Moreover, "minimal" is a subjective term, and various stakeholders and decision-makers may have different views about its meaning and implications with respect to proposed expenditures.

3. Certified athletic trainers can provide an important service in protecting student athletes.

Agree.

650 North Delaware Street, San Mateo, CA 94401-1732 (650) 558-2299 (650) 762-0249 FAX

Adult School - Aragon - Burlingame - Capuchino - Hillsdale - Middle College - Mills - Peninsula - San Mateo

An Equal Opportunity Employer

4. *Data regarding head injuries sustained by student athletes in San Mateo County high schools is not maintained in a central location.*

Agree. The District is unaware of any central location where data regarding head injuries suffered by San Mateo Union High School District student athletes is maintained.

RECOMMENDATIONS [All School Districts]

1. *Require neurocognitive testing on all high school athletes (pre- and post-injury) and provide full-time certified athletic trainers at all high school sporting events.*

The District presently requires neurocognitive testing of all high school athletes (pre- and post-injury).

The District presently has an athletic trainer position at each comprehensive high school. Each athletic trainer works 35-40 hours each week. The District considers 37.5 hour per weeks as full-time.

2. *Seek funding sources in order to provide for neurocognitive testing of athletes and for the hiring of full-time certified athletic trainers at all high schools.*

The District already has 35 hour per week athletic trainers at each comprehensive high school. The District provides neurocognitive testing for the majority of its student-athletes and for all student-athletes in the sports with the highest incident of concussions.

3. *Collect and maintain data on head injuries sustained by high school athletes at the district level; report such data to PAL for summary and analysis, keeping all names of injured athletes confidential.*

The District has implemented this recommendation in part. The District has data on head injuries sustained by high school athletes unless the student does not report the diagnosis. The District's database is accessible by all of the Athletic Trainers who input head injuries, with date, sport, type of injury, age of student, and return to play information. Names are not inputted and this data can be shared with the PAL.

The District would be willing to participate in the development of a County database and report its data (subject to measures to protect confidentiality) to PAL.

Both the Grand Jury Report and these responses of the District were presented to and approved by the District's Board of Trustees on September 10, 2015.

Please do not hesitate to contact me if you have questions or require additional information.

Sincerely,



Kevin Skelly, Ph.D.
Superintendent
San Mateo Union High School District

SEQUOIA UNION HIGH SCHOOL DISTRICT

480 JAMES AVENUE, REDWOOD CITY, CALIFORNIA 94062-1098
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ALLEN WEINER

JAMES LIANIDES
SUPERINTENDENT

September 3, 2015

The Honorable Susan Etezadi
Judge of the Superior Court
c/o Charlene Kresevich
Hall of Justice
400 County Center, 2nd Floor
Redwood City, CA 94063-1655

Dear Judge Etezadi,

The Sequoia Union High School District (the "District") has received and reviewed the 2014-15 Grand Jury Report entitled "Athletes at Risk: Are San Mateo County High Schools Safeguarding Athletes from Serious Head Trauma?" We appreciate the Grand Jury's interest in this matter. Having reviewed and considered the Grand Jury's Findings and Recommendations, the District responds as follows, pursuant to section 933.05 of the California Penal Code:

FINDINGS

1. *Neurocognitive tests establish a baseline of the cognitive skills of student athletes prior to the beginning of athletic participation and with retesting help to ensure that students do not return to practice or competition too soon. Some San Mateo County High School Districts administer these tests to athletes prior to competition and after sustaining a head injury. [Footnotes omitted.]*

Partially agree and partially disagree. The District agrees that one of the purposes of neurocognitive testing is to establish a baseline of cognitive skills of student athletes prior to the beginning of athletic participation and that retesting may be used to help ensure student athletes who suffer head injuries do not return to practice or competition too soon. While the District does administer neurocognitive tests at its schools, the District is unaware of the extent to which other school districts and high school sites throughout San Mateo County administer neurocognitive tests in connection with their athletic programs.

2. *The cost of neurocognitive testing is minimal in relation to overall school budgets.*

Disagree. The cost of neurocognitive testing includes both the expense of the test and the time and personnel required to administer it and analyze the results. The cost of the testing also increases with each student-athlete tested. Currently, Dignity Health Sequoia Hospital covers the cost of the testing and personnel required for testing in the Sequoia Union High School District. If this funding was not available, the District would need to assess the total cost of testing and determine what other programs would be impacted if it chose to pay for the testing from the General Fund. The District does not have the knowledge to determine whether or not the cost of testing is minimal for other districts.

3. *Certified athletic trainers can provide an important service in protecting student athletes.*

Agree.

4. *Data regarding head injuries sustained by student athletes in San Mateo County high schools is not maintained in a central location.*

Agree. The District is unaware of any central location where data regarding head injuries suffered by San Mateo County high school student athletes is maintained.

RECOMMENDATIONS

1. *Require neurocognitive testing on all high school athletes (pre- and post-injury) and provide full-time certified athletic trainers at all high school sporting events.*

The District will continue to monitor the health of its high school student athletes. The District will also continue to collect and review data annually in order to ensure that its student-athletes and their families are receiving the appropriate information regarding the risks of head injuries sustained during athletics.

The District provides part-time certified athletic trainers at each of its comprehensive high schools and the arrangement works well to meet the needs of its athletic programs. The athletic trainers provide on-site support for after-school athletic practices for all sports as well as support at targeted high school athletic events (such as games and scrimmages) as determined by those sports with a greater risk of head injury (and other serious injury).

2. *Seek funding sources in order to provide for neurocognitive testing of athletes and for the hiring of full-time certified athletic trainers at all high schools.*

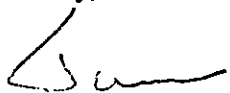
As stated, the neurocognitive testing in the District is currently provided by Dignity Health Sequoia Hospital and the athletic trainers are paid for through the General Fund. If the current funding source were not available or the District determined that it is in the best interest of its student-athletes to expand testing and/or to increase the hours of service of the athletic trainers, it would need to seek additional sources of funding or reduce funding to other programs paid for out of the General Fund.

3. *Collect and maintain data on head injuries sustained by high school athletes at the district level; report such data to PAL for summary and analysis, keeping all names of injured athletes confidential.*

The goal of the District is to maintain data on head injuries sustained by high school athletes. The District would be willing to report such data (subject to measures to protect confidentiality) to PAL, assuming that PAL believes it would be valuable to maintain such data centrally and is willing to take on this role.

Both the Grand Jury Report and these responses of the District were presented to and approved by the District's Board of Trustees on September 2, 2015.

Sincerely,



James Lianides, Ed.D.
Superintendent
Sequoia Union High School District



SOUTH SAN FRANCISCO UNIFIED SCHOOL DISTRICT

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SUPERINTENDENT

Shawnterra Moore, Ed. D.

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September 24, 2015

The Honorable Susan Etezadi
Judge of the Superior Court
c/o Charlene Kresevich
Hall of Justice
400 County Center, 2nd Floor
Redwood City, CA 94063-1655

Dear Judge Etezadi,

The South San Francisco Unified School District (the "District") has received and reviewed the 2014-15 Grand Jury Report entitled "Athletes at Risk: Are San Mateo County High Schools Safeguarding Athletes from Serious Head Trauma?" We appreciate the Grand Jury's interest in this matter. Having reviewed and considered the Grand Jury's Findings and Recommendations, the District responds as follows, pursuant to section 933.05 of the California Penal Code:

FINDINGS

1. *Neurocognitive tests establish a baseline of the cognitive skills of student athletes prior to the beginning of athletic participation and with retesting help to ensure that students do not return to practice or competition too soon. Some San Mateo County High School Districts administer these tests to athletes prior to competition and after sustaining a head injury. [Footnotes omitted.]*

Partially agree and partially disagree. The District agrees that one of the purposes of such testing is to establish a baseline of cognitive skills of student athletes prior to the beginning of athletic participation and that retesting may be used to help ensure student athletes who suffer head injuries do not return to practice or competition too soon. The District is unaware of the extent to which other school districts and high school sites throughout San Mateo County administer neurocognitive tests in connection with their athletic programs. Currently, El Camino High School is using the CIF Concussion Return to Learn Protocol for pre/post data with their football, volleyball, and cross country teams.

2. *The cost of neurocognitive testing is minimal in relation to overall school budgets.*

Disagree. The District is unaware of the extent to which the costs of neurocognitive testing is or should be considered minimal in relation to overall school budgets. Moreover, "minimal" is a subjective term, and various stakeholders and decision-makers may have different views about its meaning and implications with respect to proposed expenditures.

3. *Certified athletic trainers can provide an important service in protecting student athletes.*

Agree.

4. *Data regarding head injuries sustained by student athletes in San Mateo County high schools is not maintained in a central location.*

Agree. The District is unaware of any central location where data regarding head injuries suffered by San Mateo high school student athletes is maintained.

RECOMMENDATIONS

1. *Require neurocognitive testing on all high school athletes (pre- and post-injury) and provide full-time certified athletic trainers at all high school sporting events.*

The District will continue to monitor its high school student athletes. Based on the data it collects, the District will determine, within the next six months, of whether to require neurocognitive testing of some or all high school student athletes.

The District will continue to monitor its high school student athletes. Based on the data it collects, the District will consider, within the next six months, whether to provide certified athletic trainers at District high school sporting events.

2. *Seek funding sources in order to provide for neurocognitive testing of athletes and for the hiring of full-time certified athletic trainers at all high schools.*

The District will implement this recommendation insofar as it decides to provide neurocognitive testing of athletes and/or hire certified athletic trainers at its high schools.

3. *Collect and maintain data on head injuries sustained by high school athletes at the district level; report such data to PAL for summary and analysis, keeping all names of injured athletes confidential.*

The District has implemented this recommendation in part. The District maintains data on head injuries sustained by high school athletes. The District would be willing to report such data (subject to measures to protect confidentiality) to PAL, assuming that PAL believes it would be valuable to maintain such data centrally and is willing to take on this role.

Both the Grand Jury Report and these responses of the District were presented to and approved by the District's Board of Trustees on September 24, 2015

Please do not hesitate to contact me if you have questions or require additional information.

Sincerely,



Dr. Shawnterra Moore

Superintendent

South San Francisco Unified School District