

Stevenson High School Sports Medicine Position Statement on Prophylactic Bracing 2014-15 Updated 2017

With respect to the big three threats, head, heat and heart, SHS has a solid management protocol available upon request. New guidelines for concussion management, preventing heat illness and our school wide cardiac screening, reducing risk for SHS athletes.

The next area of injury concern is to the ankle and knee being the focus of this position statement. A conversation initiated by our previous head football coach Bill McNamara and continued by incoming head coach Josh Hjorth.

Unfortunately, sports do carry risk, especially in competition. However, it is those that require surgery or that become season or career ending, are of particular concern.

As part of annual review and reflection on previous season injury trends, a concern presents on what is the best possible way to protect Stevenson athletes and minimize risk. According to the [SUMMARY REPORT NATIONAL HIGH SCHOOL SPORTS-RELATED INJURY SURVEILLANCE STUDY](#), sports-related injuries are largely preventable through the application of preventive interventions based on evidence-based science.

Figure 2.1 Injury Diagnosis by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2014-15 School Year

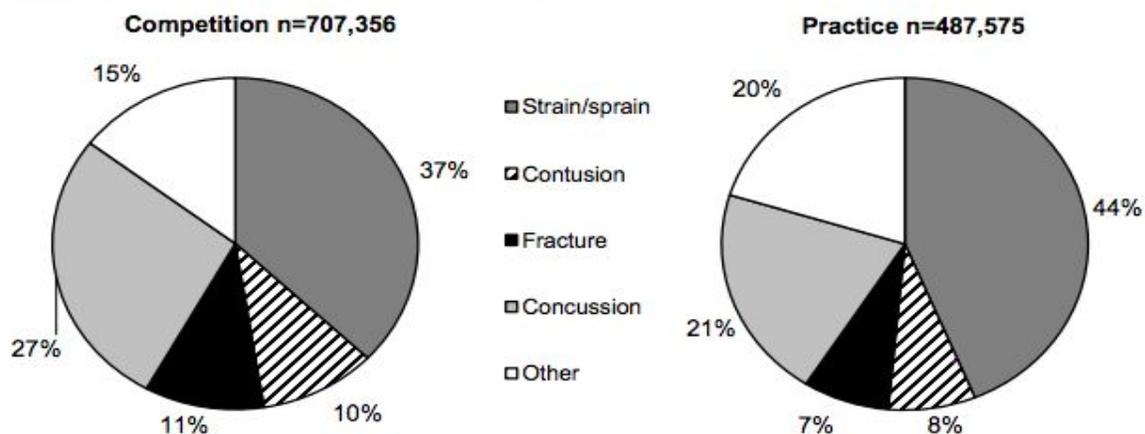


Table 2.4 Body Site of Injury by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2014-15 School Year*

Table 2.4 Body Site of Injury by Type of Exposure, High School Sports-Related Injury Surveillance Study, US, 2014-15 School Year*

Body Site	Competition		Practice		Overall	
	n	%	n	%	n	%
Head/face	210,761	29.8%	116,935	23.9%	327,696	27.4%
Ankle	97,953	13.8%	82,169	16.8%	180,122	15.1%
Knee	111,333	15.7%	52,756	10.8%	164,089	13.7%
Hip/thigh/upper leg	51,444	7.3%	56,215	11.5%	107,659	9.0%
Hand/wrist	51,249	7.2%	37,746	7.7%	88,995	7.4%
Shoulder	53,926	7.6%	31,971	6.5%	85,897	7.2%
Trunk	29,311	4.1%	22,459	4.6%	51,770	4.3%
Lower leg	26,609	3.8%	20,875	4.3%	47,484	4.0%
Foot	27,362	3.9%	19,839	3.1%	46,740	3.9%
Arm/elbow	23,792	3.4%	20,393	4.2%	44,185	3.7%
Neck	8,228	1.2%	14,042	2.9%	22,270	1.9%
Other	16,182	2.3%	13,310	2.7%	29,492	2.5%
Total	708,150	100%	488,249	100%	1,196,399	100%

* Totals and n's are not always equal due to slight rounding of the weighted number of injuries and missing responses. Due to a low level of non-response, these totals are always similar but are not always equal to the total number of injuries.

We went out to analyze patterns of injury and prevention, driven to determine evidence-based prevention practices. Our Stevenson librarians team up with SHS sports medicine to research and review all the available published literature for the past few decades to the present. We also contacted many of our professional peers and preferred provider physicians. The published literature was largely conflicting and lead us to neither advocate or discourage the use of prophylactic bracing. However upon having private, internal unpublished documents shared with us, evidence is more compelling that there may be a place for prophylactic bracing in high school. As braces have improved in structure and fit, they seemed to have improved in function, rendering many of the older studies discouraging use, obsolete.

We consulted our school preferred provider physicians about their views on prophylactic bracing.

Dr. Christ Pavlatos: Illinois Bone and Joint, Libertyville/Lake Forest

One of the most common injuries in football is injuries to the knee ligaments. The ACL and MCL are the two most commonly injured. Many have recommended prophylactic knee braces to prevent ligament injuries to the knee. Currently, there is **no definitive study** that indicates a reduction in the rate and severity of knee ligament injuries in football with the use of prophylactic knee braces. In the September–October 2010 issue of the journal Sports Health, Michael

Salata et al. performed a systematic review of previously published articles that looked at the effectiveness of prophylactic knee bracing in football. The authors note that there has always been controversy regarding the effectiveness of these braces. They point to the position statement of the American Academy of Orthopaedic Surgeons regarding prophylactic bracing. "Prophylactic knee braces may provide limited protection against injuries to the MCL in football players. Scientific studies have not demonstrated similar protection to other knee ligaments, menisci, or articular cartilage." Salata et al. conclude in this study that there is insufficient evidence to suggest that bracing prevents knee injuries or decreases the severity of knee injuries. "Data do suggest that in the high-risk positions of offensive and defensive line, linebacker, and tight end, bracing may be effective in both preventing and decreasing severity of **MCL** injuries in the college athlete. Medical evidence does not support the routine use of bracing in high school football players." When I am asked by parents on the use of knee braces to prevent injuries in non-injured athletes, I inform parents on the findings of the current literature, cost of the braces and potential decrease performance seen in some athletes wearing braces. However, with current bracing technology, I have seen limited reduction in the athlete's performance. With an informed athlete and their parents, I allow each athlete to decide on the use of prophylactic bracing in football.

Dr. Christ Pavlatos Orthopaedic Surgeon - IBJ Sports Medicine

Dr. Mark Neault: Complete Orthopaedic Care, Lincolnshire

"For years, professional sports and the NCAA have adopted the use of prophylactic bracing to reduce the risk of injury in their student athletes. Due to this action, many teams have noted a decline in the rate of injury. It has been difficult to prove the effectiveness of knee bracing in studies, but many programs have seen the advantage. In particular, it has been noted that prophylactic knee bracing in the sport of football has been effective. As a Sports Medicine Fellowship Trained Orthopaedic Surgeon, my experience with professional and Division 1 collegiate sports has shown success with programs such as this. That is why I would like to see this practice brought to Stevenson High School. It is important to note that a brace can never substitute for overall strength and conditioning which is the most important protector against injury. Although nothing can guarantee against injury, the use of prophylactic knee bracing will be an added benefit to our student athletes here at Stevenson High School, offering a chance to increase their safety during sports activities."

Dr. Mark Neault, Orthopaedic Surgeon - Advocate Medical Group AMG

We do recommend that athletes and teams continue to establish proprioceptive training ACL injury prevention as a routing component of their overall sport conditioning program. Families wishing to get a complimentary injury screening, please contact a branch of our trusted affiliates.



<http://www.athletico.com/services/complimentary-injury-screens/>

We have spent considerable time evaluating ankle and knee braces. We looked at efficacy, cost, fit, manufacture warranties and service. We have negotiated lower prices than catalog list prices on behalf of our community.

These are the recommendations for those families wishing to pursue prophylactic bracing of the ankle or and knee. Stevenson Athletic Trainers will provide or arrange the sizing and fitting of braces desired.

We are presenting the Breg® line of knee braces, however we can arrange for other braces that an athlete or family may have an alliance too. An athlete fitted with one particular type should stay with their existing brand for uniformity. Our recommendation is the McDavid 195 Soft Ankle brace for most sports. Some athletes may wish to consider the more rigid Ultra Ankle®.

Knee Bracing:



Breg options for Stevenson HS.: Megan Manga www.postoppartners.com
mmanga@postoppartners.com

I believe there are 3 things about Breg's ligament braces that distinguish us from the rest:

- 1) Compliance
- 2) Comfort
- 3) Service

Breg listens to the end user and continues to build in features that make this thing the most comfortable, compliant, and efficient brace in the marketplace. Here are some examples of that:

- AirTech® Frame pads – innovative windows and channels in the pad permit cooling air flow while allowing moisture and heat to move away from the skin
- Pivot Point Strap tabs – pivoting strap tabs allow straps to contour to the leg for superior fit, comfort and suspension
- ProForm Technology – medial side structure, now redesigned for superior contoured fit and protection

Pricing: SPECIAL BUY 1 GET 1 FREE March 1st - Sept 30th

Breg Fusion XT ACL Brace: (XT is the stronger frame, also recommended for contact sports)

List Price off the shelf: \$479.75

List Price Custom: \$695.25

Breg Axiom Brace:

List Price off the shelf: \$475.25

List Price Custom: \$663.50

BregAxiom Elite Brace

List Price off the shelf: \$464.50

List Price Custom: 652.75

Breg Z-13Brace: (Baseball, Volleyball etc.)

List Price off the shelf: \$365.

List Price Custom: \$346

Breg now recommends first working for a good fit through an off the shelf brace, and if a protective fit cannot be established with an off the shelf model, then sizing for a custom brace is recommended.

Off the shelf braces have a 6 month warranty on padding and 1 year warranty on frame.

Custom braces have a 5 year warranty on padding and frame

Custom braces come with 1 re-size or re-fit at no cost. Each additional refit is \$99 after the first.

Custom braces come with their own personal brace bag.

Breg will size and fit every patient at the High School for quality assurance until SHS trainers are as familiar with my braces as their rep.

Ankle Brace Order Form
\$21.00/Brace

1. Fill out ankle brace form.
2. Pick your **shoe size** and then choose **brace size** accordingly.
3. Choose a **BLACK OR WHITE** ankle brace.
4. Choose how many braces you are buying.
5. You need to pay for the ankle brace, so fill out the billing information:
 - a. ALL credit card info
 - b. Phone number your parents can be reached
6. Send it in:
 - a. FAX it to Peter Hovorka at (630) 668-2767

OR

- b. **MAIL** form to:

Alert Services, Inc.
Mid-West Office
P.O. Box 1416
Wheaton, IL 60187

7. **Call** Peter and let him know you sent it to him to **expedite** your order. (630) 707-1500

Our Preferred Providing Physicians

Dr. Christ Pavlatos

IBJ OrthoAccess Monday-Thursday 7am-6pm

720 Florsheim Dr. Libertyville 60048 or call for appt Ph. 847-816-0656

Dr. Mark Neault. *AMG-Lincolnshire Advocate Medical Group* 847-634-1766

100 Village Green Lincolnshire

Stay in touch for when the new season Saturday Sports Medicine Clinics begin.

NorthShore University HealthSystem

Orthopaedic Institute

920 N. Milwaukee Ave