

Preventing concussions is difficult, so we need to do what we can to reduce the number of concussion as well as properly treat the ones that do occur. Proper treatment, can reduce the chance of repeat concussions. We get many parents, athletes and coaches that ask about what can be done to prevent sports related concussions. Equipment modifications to prevent concussion show promise in early studies, but so far there is no clear medical evidence that differently shaped helmets or soccer head bands will prevent concussion. This makes their use a "judgment call", which must be combined with a warning that these devices should not be combined with more aggressive play. Because the concussive injury occurs inside the skull, no helmet or other device outside the skull can completely prevent concussion.

Recommendations to help reduce the risk of concussion are:

- **Ensure that the athlete wear a helmet that is appropriate for the sport that they are participating in. The helmet should be certified by the National Operating Committee on Standards for Athletic Equipment ([NOCSAE](#)).**
- **Ensure that the helmet is fit in accordance to the requirements for that particular sport. Reports show that only 15-20% of all helmets are fit correctly. It is very important that the helmet is fit properly and worn correctly each and every time.**
- **Avoid using the head as the primary focal point of contact. **The head and helmet should never be used as a weapon.** Anti-spearing rules in football**

have helped to reduce the number of cervical spine injuries in that sport, however, head first contact is still evident and is increasing in sports other than football.

- **Instruct the athlete in proper tackling techniques in football. Teaching them to not lead with the head and to hit with the shoulder instead of the helmet can reduce the incident of concussion.**
- **Strengthen the neck muscles. Studies have shown that individuals with stronger neck musculature have a lower rate of concussion. A stronger neck can absorb some of the shock of the blow to the head and decrease the force delivered to the brain. Weaker neck muscles appear to be an important reason why girls may be at greater risk of concussion than boys.**
- **Mouth guard use and its role in preventing concussion is inconclusive at this time. Some studies have shown the benefits of mouth guard use in preventing concussions, and others have shown there is no correlation between mouth guard use and the reduction of concussion in sports. While it may not be possible to show that mouth guards are beneficial in reducing concussion, there is certainly no harm in an athlete wearing one. If anything, it will help reduce dental trauma as well as lacerations to the mouth.**
- **The use of headgear in soccer is beginning to gain more attention. At this time there is not enough evidence to confirm that headgear use in soccer reduces the incidence rate of concussion.**
- **Several helmet designs for football and hockey have been developed with the intention of reducing concussion rates. Preliminary research has been positive, however, other studies show that they fail to actually reduce the concussion rate in wearers.**