

Body Wise

Let's Tackle Sports Injuries

Parents, schools, clubs and students must shed old notions to foster safety.

by Ann L. Rappoport, PhD

Kids are taking a beating," says Fred Palfrey, athletic trainer at the Tatnall School in Wilmington, DE.

Every day, approximately 8,000 children are treated for sports injuries in emergency rooms. Approximately 6 percent of these involve concussions, according to the Brain Injury Association of America. Sports injuries cost our society billions of dollars.

Authors Michael Sokolove (*Warrior Girls*, Simon & Schuster, \$25) and Mark Hyman (*Until It Hurts*, Beacon, \$23.95) lambaste our current sports culture's emphasis on early and year-round specialization and glorification of high pain thresholds.

"Competition is intense, fierce," says athletic trainer Aimee Keough of Springside School in Philadelphia. Half of today's youth sports injuries are related to "overuse," notes Luke Hensel, head athletic trainer for Princeton (NJ) Day School. He's been tracking injuries and his numbers are corroborated by national studies.



Why So Much Injury?

Where's the pressure coming from and how do schools try to prevent sports injuries? How much risk is just in the nature of the games and their players? How much risk is imposed by what critics say is an abusive, commercial, competitive complex that profits at the expense of sometimes serious injuries?

Many factors feed the problem, including sports camps, extracurricular clubs with demanding schedules, and tournaments. There's the lure of college scouts, scholarships and dreams of fame and fortune. Sometimes parents push kids beyond what is safe. Some experts also cite the drive for internationally competitive Olympic-level talent that flows down into club sports and schools.

Sports medicine has evolved, just as competitive sports have intensified and Title IX has provided girls with greater opportunities. Some old maxims familiar to today's parents and coaches are no longer valid.

Let's Revise Slogans and Myths

Advocates such as the American Trauma Society and Children's Hospital of Philadelphia (CHOP), along with trainers, educators and enlightened schools, seek to dispel outdated sports notions. They call for greater awareness about safety issues and current science.

- **The saying "no pain, no gain" is out**, according to orthopedic surgeon Ted Ganley, MD, CHOP's director of sports medicine. He emphasizes instead the slogan, "No gain with pain." Also a spokesperson for the Academy of Orthopedic Surgeons, Dr. Ganley warns athletes, "Don't work through pain." Early intervention has now replaced the outdated approach of delaying treatment, including surgery, according to Dr. Ganley.
- **More is not always better**, especially in what Hensel calls collision sports, such as soccer. "Faster and higher" also often spells danger, says Ganley. Overuse and overexposure unnecessarily sideline millions of kids who would rather be playing than out of the game trying to rehabilitate. "Even pre-season, our kids come in already hurt from year-round play of their sport," Palfrey says. Stress fractures, sore shins, tendinitis, shoulder and elbow pain, Osgood-Schlatter disease and other injuries are warning signs. Fatigue and pain are signals to rest, and, if they persist, to get professional attention.

For More Info

American Trauma Society,
800-556-7890,
www.amtrauma.org

Brain Injury Association of America, 800-444-6443,
www.biausa.org

Children's Hospital of Philadelphia, Sports Medicine and Performance Center
215-590-6919,
sportsmed@email.chop.edu

ImPACT (concussion management), 877-646-7991,
www.impacttest.com

National Center for Injury Prevention and Control,
800-CDC-INFO;
www.cdc.gov/injuryviolencesafety

Prevent Injury & Enhance Performance Program (PEP),
Santa Monica Orthopaedic and Sports Medicine Group
310-829-2663, ext. 1283;
www.aclprevent.com

- **Student athletes are *not* miniature adults.** Young muscles and bones grow at different paces, constantly changing the balance and stretch on each child's neuromuscular and skeletal components. Adolescents can be especially tight in certain areas, and inappropriate strain or biomechanics can damage them. Different sorts of training are advisable at different ages and stages of growth, so it's important to have instructors with knowledge of physical development. Palfrey says middle school kids benefit more from cardio training and less from muscle bulking than juniors and seniors in high school.
- **For training programs, body type *does* matter.** Female athletes have different body proportions, biomechanical ratios and physics, on average, than male athletes. Patterns in the kinds of injuries being sustained by young female athletes are giving rise to new training methods and precautions.
- **"Getting your bell rung" is a big deal.** A student doesn't need to be knocked unconscious to have sustained a concussion. Even a mild concussion is a traumatic brain injury, from which kids heal more slowly than adults. Chances of even more serious damage increase if a youngster returns to a sport earlier than 7-10 days after a concussion.

Toward Prevention

"Preparation is the best prevention," says Keough. That includes nutritional guidelines, proper form and technique, conditioning, flexibility, strength training and "listening to what your body is telling you."

Also, young athletes and their parents need to heed the advice of certified trainers and medical experts, and learn about the safety and fitness programs they recommend. Parents should not be reluctant to investigate the practices of their child-athlete's school, and particularly their sports club, which might not have a certified trainer or resources of a school.

Here are measures currently recommended by injury-prevention experts.

- **Cross-training and time off.** Most student sports participants should not concentrate on a single sport year-round. Specialization can wear down some tissues from overuse and over-develop some muscle groups at the expense of balanced fitness and strength. That's why some schools require participation in two different sports each year and why some schools won't play students who come to them over-exerted from club sports. Experts recommend practicing and playing no more than five days per week in any one sport and taking month-long breaks from that sport.
- **Equipment and precautions.** Injuries frequently occur during practice, when young athletes take safety precautions less seriously. Schools and clubs need to continually check the condition of playing fields and equipment. Keough typically sees 20-30 students daily before each practice or game to help tape, wrap and warm up vulnerable body parts. As kids grow, the fit of their protective gear changes and must be monitored. To prevent serious dental trauma, students should wear proper mouth guards. The American Trauma Society also emphasizes avoiding outdoor play during lightning, even prior to and 30 minutes after a storm.
- **Preparation & prevention programs.** "It's all about progression and preparation to reduce risk," says Keough. Students should use both circuit training (aerobics, resistance) and functional training (lunges, pushing, plyometrics) to help systematically build balance, position, agility and strength. Don't underestimate the importance of proper pre- and post-game meals, Palfrey urges. Many schools take advantage of trustworthy resources, including:

The Prevent Injury & Enhance Performance (PEP) Program, developed by a medical group in Santa Monica, is one of many nationally-respected programs to help reduce anterior cruciate ligament (ACL) injuries and improve skills.

The ImPACT test is a valuable tool to monitor concussions. Hensel explains that athletes take this short computerized neurological assessment to get a baseline measure. If an injury takes place, this baseline serves as comparison to determine if the student is recovered before returning to the sport. ImPACT is reputed to be more sensitive than more expensive scans or self-reporting, and the Brain Injury Association of NJ has awarded a number of grants to help provide schools with the software.

CHOP's Sports Medicine and Performance Center works with young athletes on prevention, treatment and reconditioning. CHOP's division of orthopedics offers pro bono symposiums for schools, coaches and families, with demonstrations, to help improve injury prevention efforts.

Young athletes want to compete and succeed. Injuries they sustain now can cause medical issues and discomfort throughout adulthood. Parents have an important role in making sure both students and their schools and sports clubs are following up-to-date safety and injury management practices.

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