High School, College Football Comes With Risk
By Jeffrey Perkel
HealthDay Reporter – ABC News

THURSDAY, July 26 (HealthDay News) – With the school football season just around the corner, a new study is raising awareness of the risks associated with playing the game.

Researchers found that college football players get injured more often than their high school counterparts, but high school athletes are more likely to end up severely injured. The new findings also point to "where the focus should be in terms of prevention," said Dr. Cynthia LaBella, medical director of the Institute for Sports Medicine at Children's Memorial Hospital, in Chicago. She was not involved in the study, which is published in the August issue of the American Journal of Sports Medicine.

A second report on youth sports injuries was also released Thursday, this time by the U.S. Centers for Disease Control and Prevention. That study, published in this week's issue of Morbidity and Mortality Weekly Report, found that boys aged 10 to 14 were most likely to end up in the nation's emergency departments with a traumatic brain injury, and that activities such as bicycling, horseback riding, football, basketball and use of all-terrain vehicles (ATVs) were most often to blame.

The football study was led by R. Dawn Comstock, a primary investigator at the Center for Injury Research and Policy at Children's Hospital in Columbus, Ohio. Her team collected injury reports for the 2005-2006 football season from 100 high schools and 55 colleges across the country via two Internet-based systems -- the High School Reporting Information Online (RIO) and National Collegiate Athletic Association (NCAA) Injury Surveillance System, respectively.

Based on almost 1,900 injury reports submitted to the RIO, the researchers estimate there were 517,726 football-related injuries during the 2005-2006 season at the high school level across the United States. The NCAA system logged more than 3,500 injuries in its database during the same period.

Not unexpectedly, college players were about twice as likely to injure themselves as high school students, Comstock said, suffering 8.6 injuries per 1,000 "athlete-exposures" (a practice or competition), compared with high school athletes' 4.36 injuries/1,000.

But the researcher said she was surprised to find that the distribution of injuries differed, with fractures, concussions, and season-ending injuries more common among high school athletes.

For instance, injuries to the lower leg, ankle and foot were common at both the high school and college levels. But while the knee is the second most-injured site among high school players, hip and thigh injuries were more common in college athletes.

The study comes on the heels of findings released in July that found a much higher rate of catastrophic head injury among high school football players compared to college players.

LaBella noted that, if anything, this study is underestimating injuries at the high school level, because only schools with an athletic trainer on staff were included. It's possible that such schools have better resources and equipment than less well-funded schools, she said.

According to Comstock, the impetus behind this study was the lack of any injury reporting system at the high school level to match the NCAA's, which has been in place for more than 20 years.
"We set out to replicate the NCAA system at the high school level," Comstock explained. "That's important, because right now, rules, protective equipment, and education at the high school level are largely based on information collected on college athletes, and high school athletes are not merely miniature versions of their collegiate counterparts."

High school athletes are less physically mature and have less muscle mass than collegiate athletes, for instance. They also have incomplete growth plates, meaning their bones are still developing. Inexperienced athletic techniques can also exacerbate their risk of injury, Comstock said.

But better coaching might help. For instance, Comstock noted that most injuries occurred during tackles, and that the most injured positions were running backs and linebackers. "So, at the high school level, especially with younger players, coaches can make sure the athletes are very well-coached in the technique of tackling and are physically able to perform a tackle before they are allowed to play."

The CDC study showed that football is just one of many recreational activities in which young people can suffer serious harm. Poring over data from 2001-2005 from the National Electronic Injury Surveillance System--All Injury Program, the researchers looked at the causes of almost 208,000 nonfatal sports and recreation-linked brain injuries.

Kids aged 10 to 14 were at highest risk for these injuries, and males accounted for more than 70 percent of head trauma cases, the CDC report found. Activities linked to high rates of emergency department admissions for brain trauma included ATV use, use of mopeds/dirtbikes/minibikes, bicycling, golf and scooter use.

So, sports and recreation can cause injury, the experts say, especially when safety equipment is lacking or safety rules are ignored. And yet Comstock also emphasized that parents should not use her team's study as an excuse to take their children out of football.

"We have an epidemic of obesity in this country, and sports is one of the best ways for kids to incorporate exercise in their lives," she said. "Parents can help keep kids safe by making sure they wear all the appropriate protective equipment, and that their protective equipment fits properly and is in good repair."

LaBella added that parents can also help their children by ensuring that they maintain good physical conditioning year-round, are properly coached in techniques such as tackling and falling, and – perhaps most important – that they tell someone, whether a parent, coach, or athletic trainer, if they are injured, especially in the head.

In the case of a concussion, the consequences of returning to the field before the injury has healed can range from post-concussive disorder (which includes chronic headaches, memory problems, sleep disturbances and depression) to, rarely, death, in the event of a secondary injury.

"Encourage your child to let you know if they have pain or if they notice something different after a hit or a game," LaBella said. "It is not your job to know if something is important – let the medical professionals make that decision."