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## Football injury study reveals impact of heat-illness precautions

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### The NCAA News

A study released by the University of North Carolina, Chapel Hill, regarding heat-related injuries in football shows that no deaths from heatstroke occurred among young U.S. football players during the 2002 season

The safer season surprised researchers since 21 players died from heatstroke between 1995 and 2001, an average of three a year, according to Frederick Mueller, professor and chair of exercise and sport science at North Carolina's College of Arts and Sciences.

"We have been concerned because heat-related deaths are either entirely or almost entirely avoidable," Mueller said. "Such fatalities often meant someone forgot to emphasize or practice what we and others have been reminding coaches and athletic trainers about for years."

Mueller pointed out that no heatstroke deaths have been recorded during the 2003 season, either, but practices across the nation are just now getting under way.

Five players died during 2002 as a direct result of injuries suffered on the field, including three in high school, one in youth football and one in a semi-professional New York league. All five fatalities came after severe head injuries.

"Ten others died in ways not directly tied to the game but more from natural causes provoked by vigorous exercise," Mueller said.

Mueller, chair of the American Football Coaches' Committee on Football Injuries, directs the North Carolina-based National Center for Catastrophic Sports Injuries. Each year, the center produces reports on deaths and severe injuries from amateur and professional sports.

Reports are based partly on newspaper stories from around the United States collected and submitted by about 150 volunteers who monitor sports accidents, along with information from the NCAA and the National Federation of State High School Associations.

Shorter practices and noncontact drills during which players don't wear helmets can help prevent heatstroke and reduce accidents, Mueller said. Players should be allowed as much water as they wish, and coaches should schedule regular cooling-off breaks.

Mueller also noted that coaches and athletic trainers should monitor temperature and humidity, especially in August and September. He emphasized that practices can be held early or late in the day, and if it's too hot, coaches need to consider canceling them for a day or so until temperature and humidity drop.

"Players must be encouraged to tell adults if they don't feel good," he said. "They should never ever be made to feel unmanly or weak if they are having trouble. Although many coaches used to do that and thought it was the right thing, now we understand that's a potentially deadly prescription. We have all the tools and knowledge to prevent heatstroke fatalities."

Mueller and other experts strongly recommend pre-practice physical examinations for boys -- and the small number of girls -- who want to play football. Such exams sometimes reveal hidden conditions that make heavy exertion hazardous. Parents should make sure their children are insured against catastrophic injury and that medical assistance is available during practices and games.

"We especially want parents to be involved in their sons' and daughters' athletics teams so that they can help guarantee that proper precautions are being taken to reduce injuries and deaths," he said. "New York passed legislation a couple of years ago that every school should have a defibrillator on hand at games and practices, but since the machines are expensive, more research is needed before we could say that ought to happen in all states."

A Yale University faculty member began the yearly football death and injury survey in 1931. It moved to Purdue University in 1942 and has been at North Carolina since 1965.

About 1.5 million junior-high-school and high-school students play football in the United States each year. Colleges and universities field about 75,000 players.

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