

NEW YOUTH FOOTBALL RECOMMENDATIONS EMPHASIZE PRACTICE AND TRAINING SAFETY IN THE HEAT

Expert Panel: Youth Football Coaches Key to Safety

INDIANAPOLIS – Youth football coaches should adopt practice modifications and employ a strategy to acclimatize players to perform in the heat, along with a fluid replacement strategy in anticipation of young players who begin practice already dehydrated, according to new recommendations from the American College of Sports Medicine (ACSM), the world leader in the scientific and medical aspects of sports and exercise. The guidelines are outcomes from a recent expert panel convened for an ACSM scientific roundtable on youth football and heat stress.

Additional recommendations focus on factors that contribute to heat stress, such as intensity and duration of exercise, body size, health and fitness level, as well as uniform configurations.

A player's core temperature on the field is primarily related to exercise intensity and duration, clothing/equipment and environmental conditions. Therefore, practices should be modified to reduce intensity, duration, and equipment depending on the environmental heat stress. The team support staff must closely monitor all players, instead of only a particular focus on less fit, large players with an excessive body mass index (BMI), for signs and symptoms of developing heat-related injury during football practice or competition in stressful environments.

Wearing a full or partial football uniform makes players overheat sooner, even when the temperature and humidity are not very high. To reduce the risk of heat injury during the football pre-season, there should be a gradual addition of the insulating parts of the football uniform and protective equipment to allow safe transition to full intensity practice in full gear. Players should wear less padding on very hot and humid days.

Young football players often begin practice measurably dehydrated and sweat a lot on the field, so successive days of football practice can lead to additional dehydration and reductions in body weight, which may increase the risk for excessive body temperature and heat injury. Removing barriers to adequate drinking and providing optimal conditions for fluid intake will help prevent dehydration. Easy access to fluids and adequate time for drinking water and other beverages that are chilled, flavored and contain sodium will help promote fluid intake during and after training.

Other measures to help players safely acclimatize during pre-season and reduce the risk for heat injury during all practices include:

Schedule a pre-season for at least two weeks, with seven to 10 practice sessions of gradual and increasing exposure to intensity, duration, and protective equipment. This will allow for proper acclimatization to the environment and these other factors that increase heat strain.

Avoid conducting multiple on-field practice sessions on consecutive days.

Regular breaks should be scheduled to limit excessive physical activity and allow fluid replacement.

Use the "buddy" system to monitor players (Two players assigned to "keep an eye on" each other).

Use shade when available during rest breaks.

A standardized pre-participation physical examination should be performed as part of routine healthcare on each football player. A review of the athlete's past medical history should include a

history of medication and supplement use, cardiac disease, sickle cell trait, and previous heat illness.

Heat cramps are usually prompted by: 1) sodium depletion; 2) dehydration; and possibly 3) muscle fatigue. Young, fit, football players who cramp when sweating extensively may need to consume more salt and fluid, based on their individual losses.

Special precautions for sickle-trait football players should include no first-day preseason fitness runs, no timed distance runs, and no sustained sprints on the field, on hills, or on stairs. Assume that any cramping is due to red blood cell sickling until proven otherwise. Screening and precautions for sickle cell trait may readily reduce risk and save lives.

Education of coaches, and support staff on how to prevent, identify and treat heat injuries should be done each year. Adequate number of staff (coaches or medical support) should be available on site to effectively monitor the number of participants for potential problems.

"Kids don't have to suffer heat injuries or in extreme cases, die from heatstroke. Heat stress is preventable if parents, coaches and other adults involved with youth football programs have access to and utilize the right information," said Michael F. Bergeron, Ph.D., ACSM Fellow and panel co-chair. "These recommendations are meant to be the beginning of new and expanded programs of research and education that will help to ensure the health and safety of young football players everywhere."

The American College of Sports Medicine is the largest sports medicine and exercise science organization in the world. More than 20,000 International, National, and Regional members are dedicated to advancing and integrating scientific research to provide educational and practical applications of exercise science and sports medicine.

Youth Football & Heat Stress Roundtable participants also included Douglas McKeag, M.D., FACSM, Thayne Munce, Ph.D., Craig Horswill, Ph.D., Anthony Luke, M.D., MPH, Thomas Rowland, M.D., FACSM, Douglas Casa, Ph.D., FACSM, Priscilla Clarkson Ph.D., FACSM, E. Randy Eichner, M.D., William O. Roberts, M.D., FACSM, Randall Dick, FACSM, and Frederick Mueller, Ph.D., FACSM. The full set of recommendations and references will be available this fall.