

Mauldin Recreation Football Heat Guidelines

It is our stand to provide our youth with a safe and fun environment for all of our programs. It is also our intent to develop their abilities in each applicable sport. In doing so, it is necessary that we have established guidelines to aid in their development and passion for the game. The following guidelines will be adhered to for our football program in regards to heat.

Large sweat losses, insufficient fluid intake and fluid deficits increase the risk of heat injury. Players should begin practice/games well hydrated, well rested and well nourished, with a normal resting body temperature.

Thirst is not a good indicator of hydration needs. Children need to drink water routinely during the day. A pale yellow urine stream is a good indicator of proper hydration. A dark yellow urine stream is indicative of dehydration.

Two hours before exercise drink 8 to 16 ounces of water. According to the American College of Sports Medicine (ACSM) , a good rule of thumb is to drink 20 – 40 ounces per hour of a cool, non-carbonated beverage, this equates to ½ to one cup of fluid for every 15 minutes of exercise. A helpful hint: one ounce equals about one “gulp.”

Mauldin Recreation has implemented the following guidelines to deal with extreme heat. It is designed to provide participants with a standard for safe play. The value taken into account will be the heat index for the day. Our guidelines are based on the recommendations of the ACSM. Mauldin Recreation has defined five heat index zones as follows:

GREEN ZONE

Heat index of below 81 degrees. No restrictions, coaches encouraged to keep players hydrated.

YELLOW ZONE

Heat index of 81 to 94 degrees. Coaches are encouraged to take extra steps to protect players by making sure they keep them hydrated throughout entire session. Limit amount of activity in full pads and encourage frequent substitution.

ORANGE ZONE

Heat index of 95 to 105. Coaches are required to take 15 minute water breaks to protect players from dehydration. Helmets only for the first 2 weeks of practice. After the first 2 weeks of practice, full gear will be limited to 30 minutes of each session.

RED ZONE

Heat index of 106 and above, NO PRACTICE.

Dehydration and youth sports: Curb the risk

If you're sweltering in the stands at a youth sporting event, imagine what it's like for the athletes. Learn who's at risk of dehydration — and how to prevent it.

By Mayo Clinic staff

Children don't adapt as well as adults do to exercise in hot, humid weather. They produce more heat, sweat less and may be less likely to drink enough fluids during exercise — all of which increase the risk of dehydration. In turn, dehydration can lead to heat-related illnesses, such as heat cramps, heat exhaustion and heatstroke. But you don't need to worry from the sidelines. Understand how heat-related problems happen and know how to prevent them.

Who's at risk

Any child who exercises in the heat may be at risk of dehydration. The concern is often greatest for young athletes who participate in football, soccer, cross-country and other sports that start in late summer.

Your child may be particularly vulnerable to dehydration and other heat-related illnesses during summer workouts if he or she:

- Rarely exercises
- Is overweight or obese
- Has had a recent illness that caused vomiting or diarrhea
- Has had a previous heat-related illness

Football players face special risks in the heat when exercising hard while wearing full protective gear.

Acclimating to the heat

Heat-related problems are most likely within the first few days of practice. That's why it's best to take it easy at first, gradually increasing the amount of activity — and the amount of protective equipment — as the days pass. Young athletes may need up to two weeks to safely acclimate to the heat.

During hot and humid conditions, the American Academy of Pediatrics encourages coaches to:

- Reduce the intensity of physical activity lasting more than 15 minutes

- Require young athletes to drink plenty of fluids before practice and during regular beverage breaks — even if they aren't thirsty
- Limit clothing to a single layer of light-colored, lightweight material

Know when to slow down — or call it quits

Sometimes it's simply too hot and muggy to go full throttle on the field. To determine when heat and humidity make strenuous exercise risky for young athletes, your child's coach may monitor the wet bulb globe temperature (WBGT) — the standard index of temperature and humidity combined. If the WBGT is too high, outdoor athletic activities may need to be limited or canceled.

Spotting dehydration and other heat-related problems

Even mild dehydration can affect your child's athletic performance and make him or her lethargic and irritable. Left untreated, dehydration increases the risk of other heat-related illnesses, including heat cramps, heat exhaustion and heatstroke.

Encourage your child to pay attention to early signs and symptoms of dehydration, including:

- Dry or sticky mouth
- Thirst
- Headache
- Dizziness
- Cramps
- Excessive fatigue

Remind your child that he or she is responsible for reporting these signs and symptoms to the coach right away. Don't let embarrassment keep your child on the field. If dehydration is detected early, fluids and rest may be all that's needed. If your child seems confused or loses consciousness, seek emergency care.

Prevention is key

If your child plays sports in hot weather, encourage him or her to drink plenty of fluids before, during and after practices and games. Teach your child the signs and symptoms of dehydration, as well as the importance of speaking up if they occur. Involve your child's coach, too. Talk to the coach about adjusting the intensity of practice depending on the temperature and humidity on the field — and support the coach's decision to cancel games and practices when it's dangerously hot outside.

The Seven Secrets of Hydration

December 28, 2007

The Seven Secrets of Hydration

If you wish your child to perform at a high level, they need to consume fluids. Water For each 1% of body weight lost due to dehydration, your performance slips by about 2%, and a small 2% loss in weight can force your heart rate and body temperature to spiral upward, making strenuous exercise almost impossible to carry out. So what are the rules for fluid intake? How much do you really need and what should your drink be like? To make it easy for you, we have listed the seven rules of fluid intake during exercise below. If you follow these rules, you will keep your body water intact during exercise and perform at a much higher level.

Rule 1:

The rate of passage of water from your stomach into your small intestine depends on how much fluid is actually in your stomach. If there is lots of water there, fluid flow from stomach to intestine is like a springtime flood; if there is little water, the movement resembles a lightly dripping tap. Therefore, to increase stomach intestinal flow (and overall absorption of water) you need to deposit a fair amount of liquid in your stomach just before you begin your exercise. In fact, 10 to 12 ounces of fluid is a good start. This will feel uncomfortable at first, so practice funneling this amount of water into your tank several times before actual competition.

Rule 2:

To sustain a rapid movement of fluid into your small intestine during your exertions, take three to four sips of beverage every 10-15 minutes possible.

Rule 3:

If you are going to be exercising for less than 60 minutes, do not worry about including carbohydrate in your drink; plain water is fine. For more prolonged efforts, however, you will want the carbohydrate.

Rule 4:

Years of research have suggested that the correct concentration of carbohydrate in your drink is about 5 to 7%. Most commercial sports drinks fall within this range, and you can make your own 6% drink by mixing five tablespoons of table sugar with each liter of water that you use. A bit of sodium boosts absorption; one third teaspoon of salt per liter of water is about right. Although 5 to 7% carbohydrate solutions seem to work best for most individuals, there is evidence that some endurance athletes can fare better with higher concentrations. In research carried out at Liverpool John Moores University, cyclists who ingested a 15% maltodextrin solution improved their endurance by 30% compared to individuals who used a 5% glucose drink. The 15% drink also drained from the stomach as quickly as the 5% one, though many other studies have linked such concentrated drinks with a slowdown in water movement.

Rule 5:

A 6% 'simple sugar' drink will empty from your stomach at about the same rate as a fancy, 6% 'glucose polymer' beverage, so do not fall for the idea that the latter can boost water absorption or enhance your performance more than the former, and do not pay more for the glucose-polymer concoction.

Rule 6:

Contrary to what you have heard, cold drinks are not absorbed into your body more quickly than warm ones. However, cold drinks are often more palatable than warm ones during exercise, so if coldness helps the drink large quantities of fluid while you exert yourself, then keep your drinks cool.

Rule 7:

Sipping water during exercise does NOT increase your risk of digestive system problems. In actuality, most gut disorders that arise during exercise are caused by dehydration, not from taking in fluid. Dehydration induces nausea and discomfort by reducing blood flow to the digestive system, so by all means keep drinking! TrackMomDr.Lorraine Johnson

American College of Sports Medicine Heat Illness Prevention

July 27, 2006

- Audio
- Video
- [Image](#)



American College of Sports Medicine Heat Illness Prevention

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.

The evaluation of any athlete, whether as a part of health evaluations prior to activity or as a diagnosis of an injury as the consequence of sports activities, is specific to that individual and the history and current state of the individual presented. Advice, diagnosis and treatment is individualized according to numerous factors, including patient health and age information, medical history and symptoms. All athletes should be cleared by a physician or other appropriate medical professional before engaging in physical activities and, after injury, diagnosis and treatment, for return to play.

Drink Up for Sports and Fitness

The best beverages to help you stay hydrated

By Kathleen M. Zelman, MPH, RD, LD

WebMD Weight Loss Clinic - Expert Column

Summertime is here, so you've got no more excuses for not going outside to get some [physical activity](#). Outdoor activity is a great way to put the fun into fitness -- but it requires paying special attention to hydration.

When it's warm, your body perspires more to help you cool down. And depending on the temperature, humidity, and the nature of your activity, you might not even realize how much you are perspiring.

Don't rely on thirst alone to tell you how much you need to drink. To keep those muscles working and avoid [fatigue](#); it's extremely important to drink plenty of liquids before, during, and after the activity.

Drink Up -- Before, During and After

A good guideline to use when preparing for an outdoor workout, whether it's walking, running, biking, or tennis, is to drink about two cups of fluid two hours before the activity. That helps make sure you are well-hydrated before you ever go outdoors.

Then, during the activity, try to drink 4-6 ounces every 15-20 minutes to keep your muscles well-hydrated. If you are planning an hour-long walk or gym workout, fill a water bottle with about 16 ounces (2 cups) and take it with you.

Last, drink up after you're finished with your exercise. If you really want to be precise, weigh yourself before you start exercising and again when you are finished. For each pound of water [weight](#) you lose, drink 20 ounces of fluid.

Which Liquids Are Best?

For most outdoor activities, good old-fashioned tap water does the trick. If your activity lasts an hour or more, either fruit juice diluted with water or a sports drink will provide carbohydrates for energy plus minerals to replace lost electrolytes (sodium, potassium, [magnesium](#)) in your sweat.

Sports drinks like Gatorade, Powerade, and All Sport can give you a needed energy boost during your activity. They are designed to rapidly replace fluids and to increase the sugar (glucose) circulating in your blood.

Read the label to determine which sports drink that is best for you. Ideally, it will provide around 14 grams of carbohydrates, 28 mg of potassium, and 100 mg of sodium per 8-ounce serving. The drink's carbohydrates should come from glucose, sucrose, and/or fructose -- all of which are easily and quickly absorbed. It shouldn't be carbonated, as the bubbles can lead to an upset stomach.

Most sports beverages are well-diluted and contain relatively few calories. If the flavor of a sports drink helps you drink up and maintain hydration, by all means enjoy. If you're worried about the added calories, try diluting your sports drink with water or pouring it into a thermos packed with ice.

What About Fitness and Designer Waters?

"Fitness waters" such as Propel are lightly flavored and have added vitamins and minerals. The additional nutrients are meant to supplement a healthy diet -- not replace losses from exercise.

Fitness waters fall somewhere between the sports drinks and plain water. They contain fewer calories and electrolytes than sports drinks, but offer more taste than plain water. The choice is yours: once again, if drinking these beverages helps you stay hydrated, go for it.

Bottled water has catapulted to the top of the beverage industry, with sales of \$8.3 billion in 2003. One of the fastest-growing segments of that market is designer waters.

These "super-waters" are advertised as being enhanced with everything from vitamins, oxygen and glucose, to alleged fat-burning minerals. Keep in mind that the FDA does not require proof of this kind of claim. So think of these products as designer waters that serve the primary purpose of hydration and little more. Don't be fooled by the claims that some can promote weight loss!

Beyond Hydration

Fluids are vital to help your muscles function throughout your activity -- but so is your blood sugar. You need to eat a light meal or snack of at least 100 calories about an hour or so before your activity. The nutrients from the snack will help you perform better and keep hunger from interfering with your activity.

The best snacks combine healthy carbohydrates, protein, and a small amount of fat. Fruit, yogurt, nuts, and granola bars are all good examples. Read "Recipe Doctor" Elaine Magee's article on snack bars for more options for fueling your workout.