



Guidance for Physical Activity and Athletics Based on the Heat Index

Category	Recommendations for Outdoor Instructional Activities, Including PE and Special Events	Precautions for Athletics	Suggested Fluid Intake for Athletics
Under 95° F Heat Index “Green Flag”	If indoors: increase room ventilation (open windows/doors, use fans); If outdoors: use strategies below as needed.	Low to Moderate Risk: Use caution for practice sessions and monitor on basis of individual risk factors. Workout-to-Rest Ratio: 6:1	Fluid replacement beverages should be easily accessible in individual fluid containers to permit easier monitoring of fluid intake. Allow athlete to carry water bottles when practical.
95° to 99° Heat Index “Yellow Flag”	Activity: decrease physical activity at recess and in PE classes; and, limit recess to cooler morning hours Clothing: loose-fitting, light colored, lightweight clothing; encourage wide brimmed hats. Sunscreen: Sun Protection Factor [SPF] 15 or higher. Access to water: encourage students to bring water bottles or take frequent water breaks; provide wet wipes, damp clothes and/or spray bottles to cool forehead, arms, legs, and face.	High Risk; Use increased caution for practice sessions and consider modifying practice lengths and intensity level ; decrease physical activity at recess and in PE classes; and, limit recess to cooler morning hours Workout-to-Rest Ratio: 2-3:1	Athlete should consume 17-20 fl oz of water 2-3 hours before exercise and 7-10 fl oz of water 10 to 20 minutes before exercise. Fluid replacement of 7-10 fl. oz should occur every 10-20 minutes during physical activity
100° to 105° Heat Index “Red Flag”	All of the above. Move students/staff to cooler areas of campus, as often as necessary, to avoid being in the above 90° Heat Index areas for longer than 60 to 90 minutes at a time. Consider rescheduling or delaying the event until safer conditions prevail	Very High Risk: Take steps to reduce risk factors (e.g., more and longer rest breaks, reduced practice time, reduced exercise intensity, access to shade, minimal clothing and equipment, cold tubs at practice site, etc.). Consider rescheduling or delaying until safer conditions prevail. Heat index should be rechecked every 30 minutes. Workout-to-Rest Ratio: 1-2:1	Mandatory water breaks every 20 minutes for 10 minutes in duration. Traditional sports drinks with appropriate carbohydrate (CHO) and sodium may provide additional benefit for the athlete. A 6-8% addition of CHO to water is the maximum that should be utilized. All fluids should be cold to optimize gastric emptying.
Above 105° Heat Index “Black Flag”	All of the above and immediately move the students/staff to cooler areas of the building. If there are no suitable locations below the “Black Flag” level, immediately contact the Office of Environmental Health and Safety to determine what actions, including the possible dismissal/ modification of school to initiate.	Extreme Risk: No practice or competition. Reschedule or delay until safer conditions prevail Heat Index should be rechecked every 30 minutes	All students must have water readily available to them.

Heat Index temperature **IS NOT** the same as regular (thermometer) temperature. For definition of Heat Index and/or more information, please see BUL-963.1. For the current Heat Index, go to www.noaa.gov to enter your location. The Heat Index will be listed under Detailed Forecast, Current Conditions and/or Hourly Weather Graph, but only during excessively hot weather.
Modification date: 7-1-11



Heat Related Illnesses, Signs/Symptoms and Treatment

Heat Illness	Definition/Description	Signs/Symptoms	What to Do
Muscle (Heat) Cramps	Occurs during or after intense exercise. Student will experience acute, painful, involuntary muscle contractions typically in the arms, legs, or abdomen.	Dehydration Thirst Fatigue Sweating Muscle cramps	<ul style="list-style-type: none"> • Stop all activity and sit quietly in a cool place. • Drink water, clear juice or a sports drink. • Do not engage in exercise/strenuous activity for a few hours after cramps subside, as this may lead to heat exhaustion or heat stroke. • Seek medical attention if heat cramps do not subside in 1 hour.
Heat Syncope	Occurs as result of exposure to high temperatures. Typically occurs during the first 5 days of acclimation to physical activity in the heat. May also occur after a long period of standing after physical activity.	Dehydration Fatigue Fainting Lightheadedness Tunnel Vision Pale or sweaty skin Decreased pulse rate	<ul style="list-style-type: none"> • Lie down in a cool place. • Drink water, clear juice or a sports drink. • Seek medical attention if symptoms do not improve.
Heat (Exercise) Exhaustion	The inability to continue exercising that is associated with heavy sweating, dehydration, energy depletion, and sodium loss. *Frequently occurs in hot, humid conditions	Normal or elevated body-core temp (97-104°F) Dehydration Dizziness/Lightheadedness Headache Nausea/Diarrhea Weakness Persistent muscle cramps Profuse sweating Chills Cool, clammy skin	<ul style="list-style-type: none"> • Seek medical attention immediately if symptoms are severe, the student has existing heart problems or high blood pressure. • You may attempt to cool the student using: cool, non-alcoholic beverages (as directed by physician), rest, cool shower/bath/sponge bath, moving to an air conditioned environment, and wearing lightweight clothing. Remove any heavy or non-breathable fabric/clothing.
Heat Stroke	Life-threatening unless promptly recognized and treated. Occurs as a result of prolonged heat exposure while engaging in physical activity. Symptoms are a result of the body shutting down when it is no longer able to regulate temperature naturally.	Same Symptoms as Heat Exhaustion and: High body-core temp (>104°F) Change in Mood (e.g., apathy, irrational) Hot and wet or dry skin Increased heart rate Confusion	<ul style="list-style-type: none"> • If any symptoms are evident - CALL 911 or seek immediate medical assistance. • Move the student to a shady area. • Cool the student rapidly using whatever methods you can: immerse the victim in a tub of cool water; place the person in a cool shower, spray the victim with cool water from the hose, sponge the person with cool water; fan the student. • Monitor body temperature and continue to cool the student until temp drops to 101-102°F. • Continue until medical professionals arrive and take over, if medical attention is delayed; call the emergency room for further instructions.