



# ACSM-Acclimatized


WBGT (°F)	Action
≤72.0	Normal activity.
72.1-82.0	Normal activity. Monitor fluid intake.
82.1-86.0	Plan intense or prolonged exercise with discretion. Watch at-risk individuals carefully.
86.1-90.0	Limit intense exercise and total daily exposure to heat and humidity. Watch for early signs and symptoms.
≥90.1	Cancel exercise. Uncompensable heat stress exists for all athletes.


Source: Exertional Heat Illness During Training and Competition, Medicine and Science in Sports and Exercise, American College of Sports Medicine 2007, table 2


## Heat Illness and What to Do


 **Heat Cramps:** Painful, involuntary muscle spasms (usually occurring in the legs) associated with exercise in the heat when athletes have been sweating profusely.

 **What to do:** Stop activity and rest in cool area. Rehydrate.

 **Heat Exhaustion:** Inability to sustain exercise in the heat due to cardiovascular strain. Signs and symptoms include: fatigue, weakness, nausea, light-headedness, headache, heavy sweating, dehydration, decreased muscle coordination, and chills. Improvement is seen usually within 10-15 minutes.

 **What to do:** Stop activity and rest in cool area. Rehydrate. Remove excess clothing and cool the athlete with ice-wet towels. If exertional heat stroke is suspected, take rectal temperature for differential diagnosis.

 **Exertional Heat Stroke:** Occurs when (1) the rectal temperature is ≥104°F and (2) there are signs/symptoms of central nervous system dysfunction. Signs and symptoms include: high body temperature (≥104°F), irrational behavior, emotional instability, confusion, nausea, diarrhea, loss of muscle coordination, collapse, dehydration, rapid pulse, low blood pressure, heavy sweating. **This is a medical emergency.**

 **What to do:** Stop activity and aggressively cool the patient using cold water tub. Activate emergency medical service, but always cool first and transport second. Remove excess clothes. Continuously monitor the rectal temperature until it is cooled down to 102°F.

Information provided by the Korey Stringer Institute <http://ksi.uconn.edu>



# ACSM-Nonacclimatized

WBGT (°F)	Action
≤65.0	Normal activity.
65.1-72.0	Increase the rest/work ratio. Monitor fluid intake.
72.1-78.0	Increase the rest/work ratio and decrease total duration of activity.
78.1-82.0	Increase the rest/work ratio. Decrease intensity and total duration of activity.
82.1-86	Increase the rest/work ratio to 1:1. Decrease intensity and total duration of activity. Limit intense exercise. Watch at-risk individuals carefully.
≥86.1	Cancel or stop practice, exercise and competition.

Source: Exertional Heat Illness During Training and Competition, Medicine and Science in Sports and Exercise, American College of Sports Medicine 2007, table 2

## !! WARNING!!

These WBGT Reference Guidelines are summarized from published papers, policies, and position statements relating to preventing heat injury. These guidelines provide a reference as to danger zones but do not constitute or take the place of medical advice.

The Kestrel Heat Stress Tracker is an environmental meter, not a medical device, and must be employed correctly according to these instructions to ensure accurate readings. Always let the instrument equilibrate to the environment you are in.

These guidelines, and your Kestrel Heat Stress Tracker, must be employed with care and good judgment. Remember that certain individuals are more susceptible to exertional heat stress and may suffer injury before a Zone Threshold is reached. When in doubt, set your Zone Thresholds lower, reduce work time, and increase rest, hydration and access to shade. Have and practice a heat injury emergency action plan, ensure ready access to cooling equipment such as ice baths and chilled sheets, and always intervene when any individual appears disoriented, weak or ill.



[www.heatstress.com](http://www.heatstress.com)

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