



Heat and Air Quality Guidelines

Decisions regarding implementation of these guidelines are made by the on-site Competition Manager in consultation with the local TD. The Competition Manager makes the final decision.

Heat Guidelines and Air Quality Guidelines are not additive. Apply the highest number and follow those guidelines. For example, if the Heat Guidelines are in level one and the AQI is in level two, apply level two procedures.



HEAT GUIDELINES (Wet Bulb)

Wet Bulb Globe Temperature (WBGT) is preferred (Table 1), but use Heat Index (Table 2) if WBGT measurements are unavailable.

Table 1: USA Ultimate Wet Bulb Globe Temperature (WBGT) Guidelines

WBGT	Heat Precaution Level	Activity and Rest-Break Guidelines
<82.0	Level 0	Normal activity
82.0-86.9	Level 1	<ol style="list-style-type: none">One official hydration break per half.<ol style="list-style-type: none">First-half break occurs when first team reaches 4.Second-half break occurs when first team scores the higher halftime score plus 4 (for example, if the halftime score was 5-4, the break occurs when the first team reaches 9) or when soft cap is applied, whichever comes first.Break extends the time between points by 3 minutes before the next pull (i.e. total of 4 minutes 30 seconds).
87.0-89.9	Level 2	<ol style="list-style-type: none">One official hydration break per half.<ol style="list-style-type: none">First-half break occurs when first team reaches 4.Second-half break occurs when first team reaches halftime score plus 4 or when soft cap is applied, whichever comes first.Break extends the time between points by 4 minutes before the next pull (i.e. total of 5 minutes 30 seconds).Time between each point is extended by 1 minute (i.e. adds 60 seconds to existing 90 second period).Maximum game length is 90 minutes. Rounds scheduled for longer will be shortened to 90 minute hard cap. Soft cap will be adjusted to 20 minutes before hard cap.Minimum time between rounds is 30 minutes. Schedules with less time will be adjusted and communicated.
>=90.0	Level 3	Play cancelled. Games rescheduled for cooler conditions (i.e. <90.0 WBGT).



HEAT GUIDELINES (Heat Index)

Wet Bulb Globe Temperature (WBGT) is preferred (Table 1), but use Heat Index (Table 2) if WBGT measurements are unavailable. If you don't have a device to measure WBGT, use the temperature and relative humidity measurements for your site, along with the NOAA Heat Index Chart (Table 3) to convert to a Heat Index number. Then follow the guidelines in Table 2.

Table 2: USA Ultimate Heat Index Guidelines

Heat Index	Heat Precaution Level	Activity and Rest-Break Guidelines
<80.0	Level 0	Normal activity
80.0-89.9	Level 1	1. One official hydration break per half. a) First-half break occurs when first team reaches 4. b) Second-half break occurs when first team scores the higher halftime score plus 4 (for example, if the halftime score was 5-4, the break occurs when the first team reaches 9) or when soft cap is applied, whichever comes first. c) Break extends the time between points by 3 minutes before the next pull (i.e. total of 4 minutes 30 seconds).
90--104.9	Level 2	1. One official hydration break per half. a) First-half break occurs when first team reaches 4. b) Second-half break occurs when first team reaches halftime score plus 4 or when soft cap is applied, whichever comes first. c) Break extends the time between points by 4 minutes before the next pull (i.e. total of 5 minutes 30 seconds). 2. Time between each point is extended by 1 minute (i.e. adds 60 seconds to existing 90 second period). 3. Maximum game length is 90 minutes. Rounds scheduled for longer will be shortened to 90 minute hard cap. Soft cap will be adjusted to 20 minutes before hard cap. 4. Minimum time between rounds is 30 minutes. Schedules with less time will be adjusted and communicated.
>=105.0	Level 3	Play cancelled. Games rescheduled for cooler conditions (i.e. <90.0 WBGT).

Table 3: NOAA Heat Index Chart

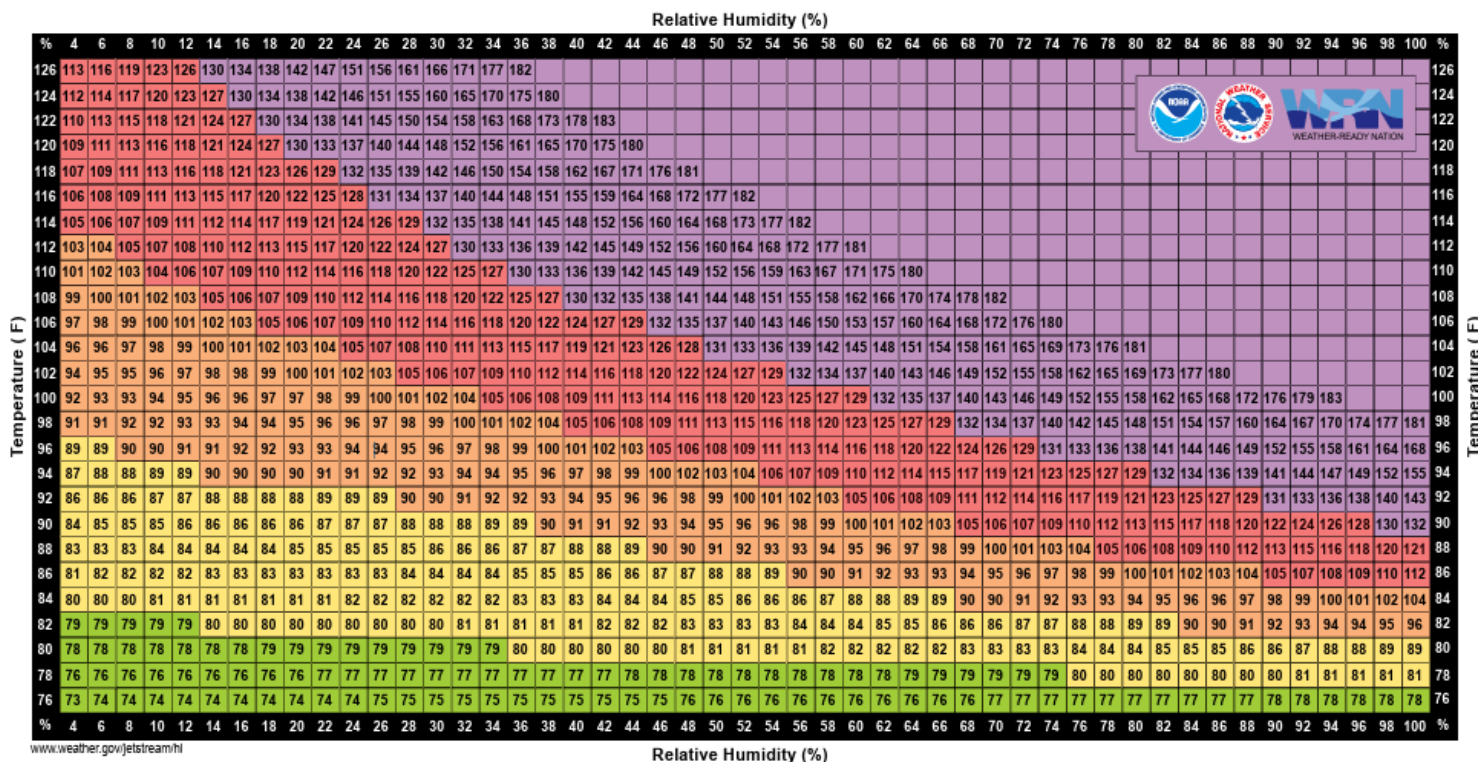
Note that USA Ultimate’s Level 3 (stop play) begins at 100 Heat Index rather than 105 per the NOAA chart.

Heat Index Chart

The 'Heat Index' is a measure of how hot weather "feels" to the body. This table uses relative humidity and air temperature to produce the "apparent temperature" or the temperature the body "feels". These values are for shady locations only. Exposure to full sunshine can increase heat index values by up to 15°F. Also, strong winds, particularly with very hot, dry air, can be extremely hazardous as the wind adds heat to the body.

Temperature & Relative Humidity

Classification	Heat Index/Apparent Temperature	General Affect on People in High Risk Groups
Extremely Hot	≥130°F	Heat/Stroke HIGHLY LIKELY with continued exposure
Very Hot	105°F - 129°F	Stroke, heat cramps, or heat exhaustion LIKELY, and heatstroke POSSIBLE with prolonged exposure and/or physical activity
Hot	90°F - 104°F	Stroke, heat cramps, or heat exhaustion POSSIBLE with prolonged exposure and/or physical activity
Very Warm	80°F - 89°F	Fatigue POSSIBLE with prolonged exposure and/or physical activity



AQI GUIDELINES

Table 4: USA Ultimate Air Quality Index Guidelines (https://www.airnow.gov)		
AQI	Air Precaution Level	Activity and Rest-Break Guidelines
≤50	Level 0	Normal Activity
51-100	Level .5	<ol style="list-style-type: none"> Sensitive athletes* <ol style="list-style-type: none"> Reduce heavy or prolonged exertion Consider removing from competition Closely monitor all athletes for respiratory difficulty**
100 – 149	Level 1	<ol style="list-style-type: none"> Sensitive athletes* <ol style="list-style-type: none"> Avoid outdoor activity Closely monitor all athletes for respiratory difficulty** One official respiration break per half. <ol style="list-style-type: none"> First-half break occurs when first team reaches 4. Second-half break occurs when first team reaches the higher half time score plus 4 (for example, if the halftime score was 5-4, the break occurs when the first team reaches 9) <p style="text-align: center;">or</p> when soft cap is applied, whichever comes first. Break extends the time between points by 4 minutes before the next pull (i.e. total of 5 minutes 30 seconds).
150 – 199	Level 2	<ol style="list-style-type: none"> Level 2 Recommendations and... Time between each point is extended by 1 minute (i.e. adds 60 seconds to existing 90 second period). Maximum game length is 90 minutes. Rounds scheduled for longer will be shortened to 90-minute hard cap. Soft cap will be adjusted to 20 minutes before hard cap. Minimum time between rounds is 30 minutes. Schedules with less time will be adjusted & communicated.
≥200	Level 3	Outdoor play canceled. Games rescheduled for indoor venue or improved conditions (i.e. <200 AQI).

*Athletes with asthma should follow their asthma action plans and keep their quick-relief medicine handy.

**Symptoms of asthma include coughing, wheezing, difficulty breathing, and chest tightness. Even athletes who do not have asthma could experience these symptoms. If symptoms occur: The athlete might need to take a break, do a less intense activity, stop all activity, go indoors, or use quick-relief medicine as prescribed. If symptoms don't improve, get medical help.

The EPA has an AirNow app available for smartphones that provides AQI readings.