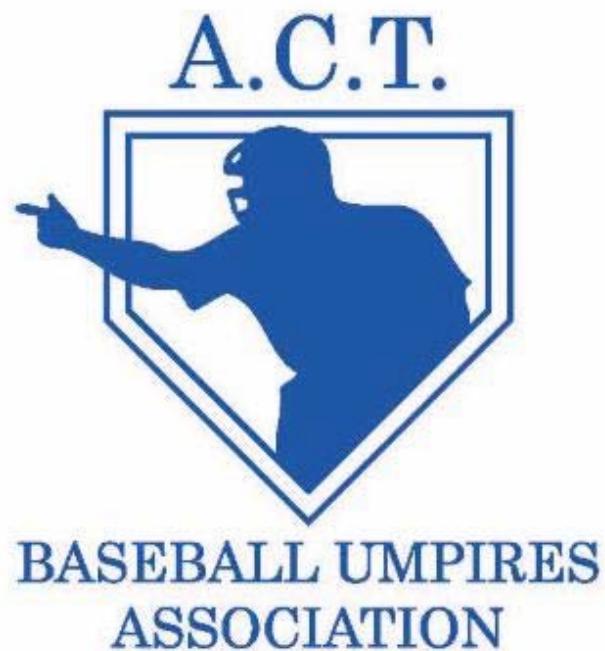


ACT Baseball Umpires Association (Incorporated)



Heat Policy

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1 PURPOSE:

- 1.1 To clearly articulate the practical, and standardised, steps to create a safe and enjoyable participation in games of Baseball during days of elevated temperature.
- 1.2 This Policy has been developed in conjunction with the;
 - * *Sunsmart - UV and Heat Illness Guide*,
 - * *Vanderbilt University Medical Centre – Heat Related Illness Recommendations*, and
 - * *Sports Medicine Australia (SMA) – Beat the Heat*.
- 1.3 This Policy is only enacted when the ambient temperature is 27°C or above.

2. DEFINITIONS:

- 2.1 **Elevated Temperature.** Specifically relates to any game that is played with a Heat Index above **30**.
- 2.2 **Heat Exhaustion.** Participants, who collapse **after** exercise, are likely suffering from a post-exercise drop in blood pressure (postural hypotension) but, some may in fact have heat stroke.
- 2.3 **Heat Stroke.** Those who show signs of altered mental function, loss of consciousness or collapse **during** exercise are likely suffering heat stroke. Sports participants showing signs of confusion, loss of skill, loss of coordination or irrational behaviour should be stopped and removed from the field immediately
- 2.4 **Heat Index.** Is an index that takes account of both air temperature and relative humidity (RH) to determine the ‘human-perceived’ equivalent temperature – e.g. **‘how hot it feels’**.

3 BACKGROUND:

- 3.1 Heat illness can occur anytime a participant exercises vigorously in hot conditions. It may also occur with prolonged exposure to hot weather, even if the activity is low intensity.
- 3.2 Heat illness in sport usually presents as either '*Heat Exhaustion*' (sometimes referred to as heat stress) or, '*Heat Stroke*'. Heat exhaustion is the more common sports-related heat illness. Heat stroke is rare, but it is a life threatening condition.
- 3.3 The human body normally cools itself by perspiration. Heat is removed from the body by the evaporation of that perspiration. However, relative humidity reduces the evaporation rate because the higher vapour content of the surrounding air does not allow the maximum amount of evaporation from the body to occur.
- 3.4 Whilst all participants in a game of baseball can be subject to Heat Illness, umpires are generally at a greater risk due to the added protection that they wear and also that they generally have less respite from direct sunlight, given that they do not get to spend time 'on the bench' whilst the other team is 'at bat'.
- 3.5 In accord to the Baseball Canberra *Senior Local Rules*, an '*accredited*' umpire, officiating in an ACTBA sanctioned game, is the official representative of Baseball Canberra for all matters pertaining to the conduct of that game. This responsibility extends to ensuring, in a reasonably practical manner, the safety of all participants in that game.
- 3.6 This Policy is a '**procedural guide**' for umpires to assist in implementing appropriate (fair, reasonable and practical) risk mitigation strategies on days of elevated temperature.

4 POLICY:

4.1 Given that *Heat Index* is a more reliable measure of the effect of hot conditions on humans, than by simply using the single measure of temperature, the Heat Index factor will be used to determine the appropriate mitigation strategies.

4.2 The Heat Index is arranged into 5 distinct zones, as follows;

White Zone

Heat index of 24-30. In this range, coaches are encouraged to take extra care to protect their players by ensuring they are keep them hydrated and encouraging frequent substitution during games, wherever practicable.

Yellow Zone

Heat Index of 31-35. In this range, a mandatory 5 minute drink break, in the shade, will be taken every 30 minutes for both players and officials. U8's and 10's will be cancelled. U12's, 14's, 16's and 18's will be shortened as per the Mitigation Table.

Amber Zone

Heat Index of 36-39. In this range, senior games will be shortened as per the Mitigation Table, all junior games are cancelled.

Red Zone

Heat index of 40-45. In this range, all senior games from 2nd grade and lower will be cancelled. 1st grade start time will be delayed by 30 minutes.

Black Zone

Heat index above 45. All games are cancelled.

4.3 The Heat Index will be determined, **5 minutes before starting time**, in accordance to Appendix 1 – *Guide for Measuring Heat Index at Baseball Games* either by;

- the use of a portable Heat Index Meter** (reading taken in the shade) or, if no meter is available,
- by obtaining the current temperature and relative humidity readings for Canberra; as advised on the *Bureau of Meteorology (BOM) - Latest Weather Observations*, found at:
<http://www.bom.gov.au/act/observations/canberra.shtml>
and then by calculating the Heat Index from the '*Heat Index Chart*' (**Table 1**).

NOTE:

** An Extech HW30 Heat Index Meter is **only** to be used to calculate the Heat Index if the current ambient temperature reading is **27°C or above**.

TABLE 1

		Heat Index Chart									
		Relative Humidity (RH)									
		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Temperature (C°)	45	42									
	44	41									
	43	40	44								
	42	39	42								
	41	37	41	45							
	40	36	39	43							
	39	35	38	42							
	38	34	37	40	44						
	37	33	35	38	41						
	36	32	34	36	39	43					
	35	31	33	35	37	41	45				
	34	30	31	33	36	38	42				
	33	29	30	32	34	36	39	42			
	32	28	29	31	32	34	37	40	43		
	31	27	28	30	31	33	35	37	40	43	
	30	26	27	28	30	31	33	34	37	39	43
	29	25	26	27	28	30	31	32	34	36	39
	28	24	26	26	27	28	29	30	32	34	36
	27	24	25	26	26	27	28	29	30	31	33

Adapted from: Vanderbilt University Medical Centre

Note: If the RH observation reading falls between table columns, the reading should be rounded to the nearest reading. E.g. if the RH observation is 25%, use the 30% column but if it is 24%, then use the 20% column.

- 4.4 After calculating the Heat Index factor, the following **Table 2** will be used to determine the appropriate mitigation strategies.

TABLE 2

Heat Stress Mitigation Strategies		Heat Index			
		31-35	36-39	40-45	46 and above
Mandatory Actions	Ensure ample amounts of water	*	*	*	
	Mandatory 5 minute rehydration break every 30 minutes	*	*	*	
	Provide wet towels to assist cooling	*	*	*	
	Ensure all players and officials have adequate shade and sunblock available during breaks	*	*	*	
	Monitor players and officials carefully	*	*	*	
Incremental Mitigation Strategies	Shorten junior games; 90 minutes 16's & 18's 60 Minutes 12's & 14's Cancel all 8's & 10's	*			
	Shorten all senior games: 2hrs/7 innings (2hr limit <u>includes</u> water breaks)		*	*	
	CANCEL ALL JUNIOR GAMES		*		
	CANCEL 2nd GRADE AND LOWER			*	
	DELAY 1st GRADE START TIME 30 MINUTES			*	
CANCEL ALL GAMES					*

Adapted from: Vanderbilt University Medical Centre

- 4.5 For all games conducted under the auspices of Baseball Canberra, the decision of the umpire to implement any of the Mitigation Strategies, from the above table – (Table 2), will made in accord to the 'Measuring Heat Index' guide (Attachment 1), and the Heat Index reading is to be recorded on the Match Report.
- 4.6 For all 1st Grade games, where the scheduled start time records a Heat Index in the **Red Zone**, the umpire will wait a further 30 minutes and then take another Heat Index reading to determine if the conditions have abated to within the Amber Zone sufficiently to allow a shortened game or, whether the game is then cancelled.

Appendix 1

ACT Baseball Umpires Association

Guide for “Measuring Heat Index” at Baseball Games

This guide details the methodology for determining the site specific Heat Index reading, to then be applied according to the ACTBUA Heat Policy. The ACT Baseball Umpires Association recommends the use of an Extech HW30 combination Humidity, Heat Index and Temperature meter or, if unavailable, by referencing the official Bureau of Meteorology website.

To ensure a consistent approach is maintained, the Heat Index reading is to be determined 5 minutes before the plate meeting is due to start, as follows;

Using an Extech HW30 Meter,

1. Readings are to be determined in a shaded area, out of direct sunlight and as close as possible to the relevant diamond.
2. The HW30 meter is to be held loosely in the fingers, or hung by the attached lanyard, for a minimum of 3 minutes. (It should not be gripped tightly or stored in a pocket).
3. Firstly, the current temperature must be measured. The *Heat Policy* only comes into force, and the Heat Index reading considered reliable, once the ambient temperature has reached a minimum of 27°C.
4. If the ambient temperature is 27°C or above, then the Heat Index should be noted and referenced against ***Table 2 – Heat Stress Mitigation Strategies*** of the *ACTBUA Heat Policy* and the appropriate mitigation strategy applied for that game.
5. It must be noted that, if the Heat Index registers 40-45, all games except 1st grade will be cancelled. 1st grade games will be delayed by 30 minutes, at which point a further reading will be taken. If the Heat index still remains in the 40-45 range, that game will be cancelled.

If no Heat Index Meter is available, the following procedure is to be followed;

1. The current temperature and relative humidity (RH) readings are to be obtained from the official *Bureau of Meteorology (BOM) – Latest Weather Observations*, found at; <http://www.bom.gov.au/act/observations/canberra.shtml>.
2. Using the BOM readings, ***Table 1 – Heat Index Chart*** of the *ACTBUA Heat Policy* is to be used to determine the Heat Index, which is then applied as per ***Table 2 – Mitigation Strategies***.

<u>NOTE:</u>	The respective readings, and any subsequent Mitigation Strategies to be applied to that game, will be communicated to both managers at the plate meeting and, the Heat Index is to be notified to the scorers to be recorded onto the official Match Report. To encourage transparency, both managers <u>may</u> be invited to participate when the original readings are determined prior to the plate meeting.
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