



# Hills Juniors

## HEAT POLICY

The League requires all member clubs to comply with this Policy. The intention of this Policy is to provide all HJBA participants with guidelines as to:-

- 1) When a Junior Baseball game [including derivatives such as TeeBall, ModBall and suchlike] should be abandoned in hot conditions, and
- 2) Who has the responsibility to direct such abandonment, and
- 3) The competition consequences for such abandonment.

### The Policy

*{With acknowledgement and thanks to NSWJBL, from which this is abstracted}*

Baseball is less affected by heat than some other sports because of the variations in intensity during a game and the opportunities that the game provides to continually rest and re-hydrate the children. The very nature of the sport requires each competing team to spend approximately the same sort of time on the bench as in the field during the course of the game, reducing potential heat stress on participants.

Be aware that:-

- Children will dehydrate **BEFORE** they say they are thirsty.
- Water is ideal but flavoured water or sports drinks may be necessary to convince children to drink the quantity required.
- **MINIMUM** quantities in hot conditions are:
  - at least 500 ml (2 or 3 glasses) before the game,
  - 200 ml (1 to 2 glasses every 15 minutes during the game,
  - at least 500 ml (more if possible) after the game.

Host clubs for each fixture must provide adequate shade areas for both players and scorers, and must have at least one person on hand trained in first-aid.

Each home and visiting team is responsible for providing, for its own members:-

- Sunscreen,
- Adequate quantities of cold drinking water & food-grade ice,
- Iced water and washers/towels in a container to sponge players down.

Failure to do so may result in a forfeit being awarded against the offending team.

Humidity is as important as the temperature in assessing the risk of heat fatigue at sporting events. The higher the humidity, the less chance the player has to cool off through evaporation of sweat.

Officials should consider cancelling or deferring an event if:-

- The ambient temperature is above 36° AND
- The relative humidity is above 20%, AND/OR
- Children appear distressed from heat.

**Regardless, a game underway or about to start must be abandoned if a WBGT reading<sup>1</sup> at the site is greater than 32°.**

The WBGT should be measured using the device provided by HJBA, and using instructions provided with that device. The WBGT reading should be taken by a Ground Official of the Host Club.

Declaring the field suitable for play is the responsibility of:-

- Prior to the commencement of any game, the Host Club's appropriate Ground Official, or
- After the commencement of any game and prior to its conclusion, the Umpire-in-Chief upon advice from the Ground Official.

Ultimately, the responsibility for allowing an individual child to continue participating or not, at any time, remains with the parent(s)/carer(s) of each individual child. Although The League can provide guidance such as this document, derived from the best available information, we cannot possibly know your child as well as you do, and therefore cannot require League Officials to make decisions for him or her that ought properly be taken by your family.

Finally ...

*The safety of the children must always be our first consideration*

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## Competition Implications

For the purpose of competition outcomes, any game that cannot be completed due to this Policy will be treated exactly the same as a "Washout Game" as defined in our RuleBook. The RuleBook from Version 3.7 onwards contains references to this Policy.

Also, there are also provisions in the RuleBook (primarily, Rule 10.4) to deal with a player who leaves the game as a result of heat stress, while the game itself continues to a result.

## Further Reading Material & Guidance

This policy has been based on work done by Sports Medicine Australia. We recommend you download and read the following material, (also available in the Library section of the Hills website).-

- "Beat the Heat" Fact Sheet,
- Heat Policy, and
- Hot Weather Guidelines

... all available from:- [www.sma.org.au/information/launch.asp](http://www.sma.org.au/information/launch.asp)

The SmartPlay website at [www.smartplay.com.au](http://www.smartplay.com.au), another Sports Medicine Australia resource, has valuable additional material, including the SmartPlay series of brochures, and a specific page dealing with baseball:- [www.smartplay.com.au/national/StartPub.asp?ID=1140668054](http://www.smartplay.com.au/national/StartPub.asp?ID=1140668054). It also has general recommendations on hydration.

The South Australian branch of Sports Medicine Australia has published an excellent document titled "Guidelines for Cancelling or Modifying Sporting Events during Hot Weather." It's available from the Hills website Library or directly from:-

[http://www.smasa.asn.au/smartplay/fact\\_sheets/downloads/hot\\_weather.pdf](http://www.smasa.asn.au/smartplay/fact_sheets/downloads/hot_weather.pdf)

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<sup>1</sup> "WBGT" mean "Wet Bulb Globe Temperature". It is an atmospheric measurement that combines ambient temperature with the moisture content of the air. The metric is used by Sports Medicine Australia to advise whether outdoor sport should or should not continue in an environment when heat stress might risk the well-being of a player.

## WBGT Calculation and Policy Rationale

### Source, Authority and Objective

The material used to develop this protocol is derived from [www.bom.gov.au/info/thermal\\_stress/](http://www.bom.gov.au/info/thermal_stress/). The objective is to describe a process that allows a WBGT reading at a baseball field to be calculated from the raw input data available from the device provided by HJBA to member clubs. That data is ambient {shade} temperature and relative humidity<sup>2</sup>.

### Determining the WBGT ...

Using the device provided by HJBA, the following process should be executed by a Ground Official of the Host Club *[including the club groundsperson prior to commencement of a game, and a person under the supervision of the umpire-in-chief of a game underway, as appropriate]*:-

- Standing in the vicinity of the field and on grass, and shielding the device from full sun (perhaps using your body), observe and record the Ambient Temperature and the Relative Humidity with the device at waist level (approximately 1 metre from the ground surface).
- Using the table below, calculate and declare the WBGT reading at that time.
- Note that upon first use on a day, the device requires some “settling time” of up to 5 minutes, especially if it was stored in a cool or dry environment, or after being removed from full sun. Allow for this by having the device in the vicinity of the field on days when it might be required, and do not declare a reading until the numbers from the device stop changing significantly.
- The device comes packaged with operational and maintenance instructions. It is the Host Club’s responsibility to keep it in working order, including fitting replacement batteries when required.

#### Calculating the WBGT from a known Relative Humidity and Temperature.

| RH  | Ambient Temperature {in shade} |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|--------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|     | 20                             | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |    |
| 0   | 15                             | 16 | 16 | 17 | 18 | 18 | 19 | 19 | 20 | 20 | 21 | 22 | 22 | 23 | 23 | 24 | 24 | 25 | 25 | 26 | 27 | 28 |
| 5   | 16                             | 16 | 17 | 18 | 18 | 19 | 19 | 20 | 21 | 21 | 22 | 22 | 23 | 24 | 24 | 25 | 26 | 26 | 27 | 27 | 28 | 28 |
| 10  | 16                             | 17 | 17 | 18 | 19 | 19 | 20 | 21 | 21 | 22 | 23 | 23 | 24 | 25 | 25 | 26 | 27 | 27 | 28 | 29 | 30 | 30 |
| 15  | 17                             | 17 | 18 | 19 | 19 | 20 | 21 | 21 | 22 | 23 | 23 | 24 | 25 | 26 | 26 | 27 | 28 | 29 | 29 | 30 | 31 | 31 |
| 20  | 17                             | 18 | 18 | 19 | 20 | 21 | 21 | 22 | 23 | 24 | 24 | 25 | 26 | 27 | 27 | 28 | 29 | 30 | 30 | 31 | 32 | 32 |
| 25  | 18                             | 18 | 19 | 20 | 20 | 21 | 22 | 23 | 24 | 24 | 25 | 26 | 27 | 28 | 28 | 29 | 30 | 31 | 31 | 32 | 32 | 32 |
| 30  | 18                             | 19 | 20 | 20 | 21 | 22 | 23 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 29 | 30 | 31 | 32 | 32 | 32 | 32 | 32 |
| 35  | 18                             | 19 | 20 | 21 | 22 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 31 | 32 | 32 | 32 | 32 | 32 | 32 |
| 40  | 19                             | 20 | 21 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| 45  | 19                             | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| 50  | 20                             | 21 | 22 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| 55  | 20                             | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| 60  | 21                             | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| 65  | 21                             | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| 70  | 22                             | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| 75  | 22                             | 23 | 24 | 25 | 26 | 27 | 29 | 30 | 31 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| 80  | 23                             | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| 85  | 23                             | 24 | 25 | 26 | 27 | 29 | 30 | 31 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| 90  | 24                             | 25 | 26 | 27 | 28 | 29 | 31 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| 95  | 24                             | 25 | 26 | 27 | 29 | 30 | 31 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| 100 | 24                             | 26 | 27 | 28 | 29 | 31 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 |

#### Key:-

- Safe to play:- any individual child in distress is probably suffering something other than heat stress.
- Still safe in most cases, but ensure the children are hydrated, especially after half-innings longer than 15 minutes.
- Now marginal:- Coaches & Officials should watch the children carefully for symptoms of heat stress.
- If nobody is distressed, finish a game in progress but don't start a new one:- heat should soon start affecting at least some players
- Abandon or re-schedule:- heat stress should now be affecting most players

Note that the levels above are relevant only for our sport, and take into consideration such factors as the game format, event duration, physical intensity, playing surface, availability of and opportunity for regular hydration, and player age.

<sup>2</sup> Note:- the WBGT reading will be, by definition, an *approximation* of the WBGT that *would have been* derived by using a proper Wet Bulb Globe Thermometer. However, we believe that this approximation will be accurate enough for our purposes {ie:- within a 5% confidence level, which translates to less than one tenth of one degree Celsius}.