ROWING AUSTRALIA EXTREME HEAT RECOMMENDATIONS

UPDATED 2011

Heat stress is a serious health risk. High intensity exercise in a hot environment, with the associated fluid loss and elevation of body temperature, can lead to dehydration, heat exhaustion and heat stroke (which can be fatal). High humidity significantly increases the likelihood of heat stress. Children are at greater risk than adults are because their thermoregulation mechanisms are not fully developed. Older athletes can also be at high risk because of reduced cardiac function.

Competition organisers have a Duty of Care to monitor environmental conditions and to take action to minimise the risk of heat stress to athletes.

Refer also to: *'Guidelines for Medical Services provisions at Rowing Australia conducted events' Version 1, 2010*

1. Scope of these Recommendations

These recommendations shall apply to all competitions conducted in Australia under the auspices of, and sanctioned, by Rowing Australia (Australian National Championships, Australian Masters Championships, Youth Cup, National Selection Regattas, or other RA events).

2. Structure of the Extreme Heat Recommendations

These recommendations are divided into sections:-

- Activating the Extreme Heat Recommendations
- Heat Index
- Requirements of the Competition Manager/Event Director
- Recommendations to Regatta Committees
- Important Information - and who suspends racing
- Role and Responsibilities of the Competition Manager/Event Director
- Instruments for measuring Heat Index
- Heat Index Table
- Procedures for reducing the risk of heat stress

3. Activating the Extreme Heat Recommendations

The following minimum requirements will determine activation of the Extreme Heat Recommendations. Temperatures are to be deemed at the regatta venue by the side of the course, NOT in direct sunlight.

<u>For competitors 16 years and younger</u>

All racing must be suspended (on completion of the current race) and no further races are to commence if;
The Heat Index is 35 or greater
The Absolute Temperature is 34 or greater

<u>For competitors over 16 years of age (Open)</u>

All racing must be suspended (on completion of the current race) and no further races are to commence if;
The Heat Index is 35 or greater

4. Heat Index

The Heat Index shall be determined from the Heat Index Table enclosed by using the Ambient Temperature and the Relative Humidity measured at the course at the same time. For example, if the Temperature is 35°C and the Relative Humidity is 40%, the Heat Index is a value of 37. If the Temperature is 35°C and the Relative Humidity is 60%, the Heat Index is a value of 45. See sections 9 & 10 below.

5. Requirements of Competition Manager/Event Director

- Competition Manager/Event Directors, must have on site, the appropriate instrument to measure Temperature and Relative Humidity to determine Heat Index levels. In some states, the Bureau of Meteorology may provide local conditions via an airport facility, or weather station near the venue
- Once the air temperature reaches 25°C, the conditions must be evaluated at least once every hour and recorded.
- Once the Extreme Heat Recommendations are invoked, the conditions must be re-evaluated every 30 minutes.
- Where racing is suspended, Competition Manager/Event Directors must ensure that all competitors, coaches ad managers involved in the regatta are made aware of the action - and made aware of procedures involving the next round of scheduled races/session.
- Once the Extreme Heat Recommendations are invoked, the Competition Manager/Event Director must ensure that the minimum rest time between races is one hour.
- Cold drinking water should be made available.
- Cold showers should be made available.
- Ice should be made available for heat stress emergencies.
- Adequate shaded areas should be provided.
- The Competition Manager/Event Director's closest advisor on medical matters is the Medical Director or venue Doctor. If for some reason, the Doctor is unavailable for consultation, then a registered Paramedic of Nurse on duty at the event, should be consulted.
- Information about the nearest medical assistance should be on display in a prominent location.
- Promote awareness of the seriousness of heat stress and the steps that can be taken to reduce the danger by displaying and distributing appropriate information such as the "Drink Up – Beat the Heat" leaflet (available at www.sma.org.au produced by Sports Medicine Australia). The "Beat the Heat" Recommendations as included in the Extreme Heat Recommendations should also be displayed at all venues.

Note: The Referee **will consult with** the RA Technical Delegate, Competition Manager/Event Director and the event's Medical Director and may invoke the Extreme Heat Recommendations if he/she believes there is real danger to the competitors' health.

6. Recommendations to Competition Manager/Event Directors

- Have cold water drinking fountains at each venue.
- Observe the Guidelines addressed in the RA "Guidelines for Medical Services provisions at Rowing Australia conducted events' Version 1, 2010
- Encourage competitors to wear hats that cover the top of the ears and back of the necks.
- Avoid scheduling races in the middle of the day when the risk of heat stress is highest. Consider modifying racing distances.

7. Important Information and who suspends racing

- Under the RA Rules of racing, the Referee has the power to suspend racing or postpone any race on account of the weather conditions. At RA Events, the Referee **will consult with** the RA Technical Delegate, Competition Manager/Event Director and the event's Medical Director and may invoke the Extreme Heat Recommendations if he/she believes there is real danger to the competitors' health.
- The measurement values used in the Extreme Heat Recommendations determine the level of risk are for an average person involved in continuous strenuous activity in high temperatures. Individual persons will be affected differently by the environmental conditions depending on their:
  - Fitness level
  - Athletic ability
  - Age
  - Gender
  - Any predisposed medical conditions
  - Level of acclimatisation

8. Role and Responsibility of the Referee

Under the RA Rules of racing, the Referee has the power to suspend racing or postpone any race on account of the weather conditions. The Referee **will consult with** the RA Technical Delegate, Competition Manager/Event Director and the event's Medical Director and may invoke the Extreme Heat Recommendations if he/she believes there is real danger to the competitors' health.

Upgrading the risk level and even suspending racing may be appropriate in environmental circumstances falling outside the cut-offs listed in the Extreme Heat Recommendations, particularly if Heat Index values are being used – for example, extreme heat combined with high winds.

9. Instruments for measuring Heat Index

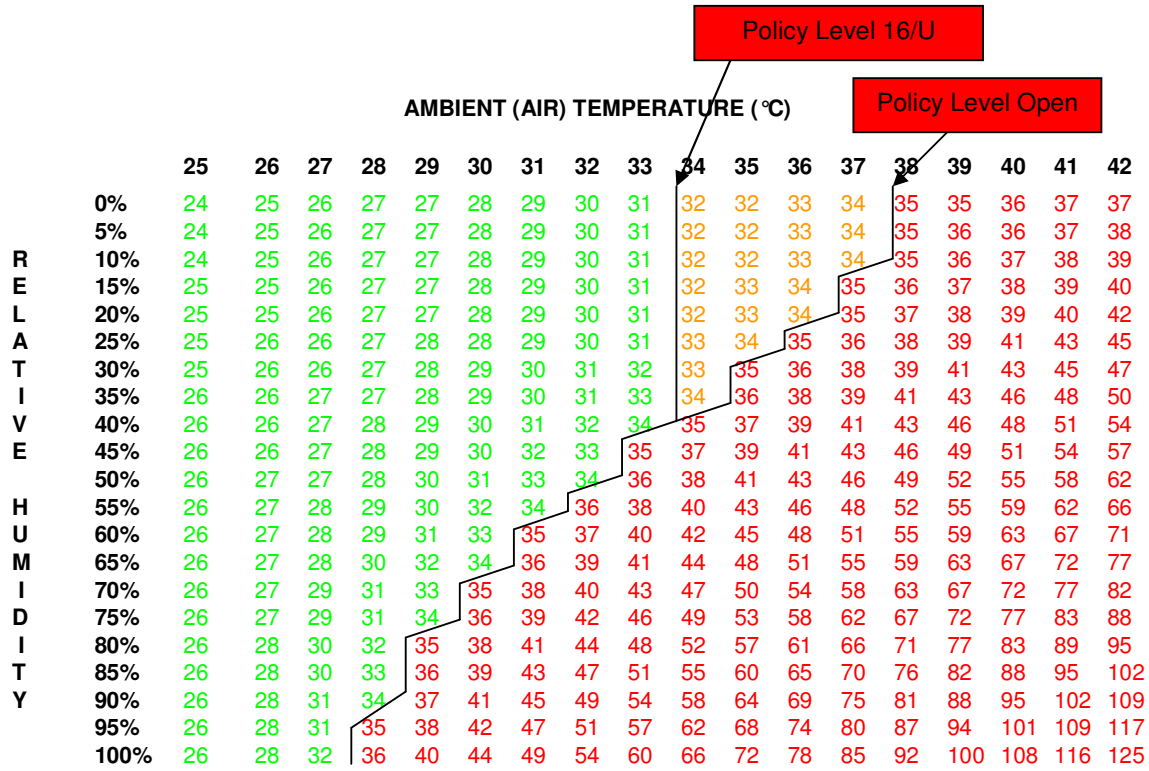
In using the Heat Index Table provided, Ambient Temperature and Relative Humidity should be measured directly at each competition venue. Relative Humidity can be determined by using a digital thermometer/ hygrometer that can be purchased at electronic stores at a reasonably low cost.

Where possible, Heat Index observations should be obtained (and used) from the nearest BOM weather station, or airport.

Go to: www.bom.gov.au then; follow the link to: *weather and warnings*, then to: *your state*, then to: *observations*, then: *thermal comfort.*

10. Heat Index Table

The Heat Index was devised for shady, light wind conditions and does not take into account radiant heat. Direct sunshine and strong, hot, dry winds can significantly increase the "apparent temperature" and thus the risk of heat stress.



RELATIVE HUMIDITY	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
0%	24	25	26	27	27	28	29	30	31	32	32	33	34	35	35	36	37	37
5%	24	25	26	27	27	28	29	30	31	32	32	33	34	35	36	36	37	38
10%	24	25	26	27	27	28	29	30	31	32	32	33	34	35	36	37	38	39
15%	25	25	26	27	27	28	29	30	31	32	33	34	35	36	37	38	39	40
20%	25	25	26	27	27	28	29	30	31	32	33	34	35	37	38	39	40	42
25%	25	26	26	27	28	28	29	30	31	33	34	35	36	38	39	41	43	45
30%	25	26	26	27	28	29	30	31	32	33	35	36	38	39	41	43	45	47
35%	26	26	27	27	28	29	30	31	33	34	36	38	39	41	43	46	48	50
40%	26	26	27	28	29	30	31	32	34	35	37	39	41	43	46	48	51	54
45%	26	26	27	28	29	30	32	33	35	37	39	41	43	46	49	51	54	57
50%	26	27	27	28	30	31	33	34	36	38	41	43	46	49	52	55	58	62
55%	26	27	28	29	30	32	34	36	38	40	43	46	48	52	55	59	62	66
60%	26	27	28	29	31	33	35	37	40	42	45	48	51	55	59	63	67	71
65%	26	27	28	30	32	34	36	39	41	44	48	51	55	59	63	67	72	77
70%	26	27	29	31	33	35	38	40	43	47	50	54	58	63	67	72	77	82
75%	26	27	29	31	34	36	39	42	46	49	53	58	62	67	72	77	83	88
80%	26	28	30	32	35	38	41	44	48	52	57	61	66	71	77	83	89	95
85%	26	28	30	33	36	39	43	47	51	55	60	65	70	76	82	88	95	102
90%	26	28	31	34	37	41	45	49	54	58	64	69	75	81	88	95	102	109
95%	26	28	31	35	38	42	47	51	57	62	68	74	80	87	94	101	109	117
100%	26	28	32	36	40	44	49	54	60	66	72	78	85	92	100	108	116	125

11. Procedures for Reducing the Risk of Heat Stress

BEAT THE HEAT

High intensity exercise in a hot environment, with the associated fluid loss and elevation of body temperature, can lead to Dehydration, Heat Exhaustion and Heat Stroke.

AVOID HEAT STRESS BY ADEQUATE FLUID REPLACEMENT.

- Racing in hot weather will result in extra fluid loss (dehydration). Even small degrees of dehydration will cause a decrease in performance and this can occur at any stage of a competition, particularly in hot conditions.
- Dehydration contributes to fatigue and may make you more susceptible to cramps, heat stress and heat stroke.
- Children are at a greater risk of heat stress than mature adults.

'BEAT THE HEAT' USING THE FOLLOWING MEASURES

WHAT TO WEAR

- Wear a hat, cap or visor – a broad brimmed hat is preferred.
- Wear a 30+ sunscreen to prevent skin damage and skin cancer.
- Wear sunglasses to protect your eyes.
- Replace sweat-saturated garments with dry clothing.

DRINK PLENTY OF WATER

- **Do Not Wait To Feel Thirsty Before You Drink!**
- Sweat is mainly water and a very little salt.
- Drink cool water as it is absorbed more rapidly than warm water.
- If competing for more than one hour, use a sports drink - a carbohydrate drink of 5-10% concentration with a small amount of sodium chloride (salt tablets should be avoided because of their very high sodium chloride content, which can make dehydration worse).
- Thirst is a poor indicator – it is a late signal of severe fluid loss.

FLUID REPLACEMENT ROUTINE

- Avoid starting exercise dehydrated (drink plenty of fluids for several hours prior to participating).
- Drink at least 500 ml (2-3 glasses) ½ to 1 hr before a race.
- Drink at least 500 ml to 1 litre (5-6 glasses) after a race and continue to drink until fluid losses are replaced.

SYMPTOMS OF HEAT INJURY OR HEAT STROKE

- Symptoms of heat injury or heat stroke include:
  Fatigue
  Nausea
  Headache
  Confusion
  Light-headedness
- If you have these symptoms, you should stop competing, drink more fluids and cool down (seek medical treatment if symptoms do not improve rapidly).

*** These recommendations have been updated in 2011 to reflect changed lines of reporting and other administrative functions – plus with added information available from the Australian Bureau of Meteorology.*