
EXTREME HEAT RECOMMENDATION



Version 1

Date 15th March 2013

Australian Canoeing
PO Box 6805
Silverwater, NSW 2128

Tel: (02) 8116 9727
Fax: (02) 8116 1610
Web: canoe.org.au

1. INTRODUCTION

Australian Canoeing has a responsibility to educate and increase the awareness to our members the dangers of physical activity in the heat. Australian Canoeing's main concern is the welfare of our members and has a duty of care to ensure the safety of participants, particularly in events conducted by and/or on behalf of Australian Canoeing.

The risk of heat illness is increased in hot and humid weather because people may not be able to sweat enough for adequate cooling and high humidity may prevent adequate evaporation of sweat.

If left untreated, heat stress can lead to heat stroke which may be life threatening. Children sweat less and get less evaporative cooling than adults. This means they have greater difficulty in getting rid of heat generated by activity. Signs may include them looking flushed or feeling hotter and more stressed than adults. Children are usually more effective at "listening to their bodies" and for this reason they should be allowed to exercise to their preferred intensity, without undue pressure. If they appear distressed or complain of feeling unwell they should stop exercising immediately.

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

This recommendation shall apply to all members, administrators, officials, coaches and athletes associated with Australian Canoeing and its affiliated States and clubs.

For the intentions of this document the word participant will encompass the following people: members, spectators, volunteers, officials, coaches and any other persons participating in Australian Canoeing or affiliated States and club events.

In referring to this recommendation, members are encouraged to review these guidelines on the Sports Medicine Australia website <http://sma.org.au/>

2. RATIONALE

These recommendations have been developed to support our association, its affiliated States, clubs and members in considering whether to modify, cancel or postpone events or training.

Exercising in the heat places extra demands on the body. The dangers of high intensity exercise in a hot environment, accompanied with associated fluid loss and elevation of body temperature can be harmful and even fatal. Dehydration, heat exhaustion and heat stroke may result if proper precautions are not taken.

3. SCOPE

These recommendations shall apply to all events conducted in Australia under the auspices of, and sanctioned, by Australian Canoeing for consideration.

4. INTENDED USE

This document is intended to be used as a guide only.

Ultimately, everyone is different and individuals will respond to participation in physical activity in extreme conditions in different ways. To this end, individuals are encouraged to assess their level of participation in athletic events and training in order to best avoid heat related illness. Participants should never be forced to participate in events or training in extreme heat.

5. TEMPERATURE DETERMINATION

Members are encouraged to refer to the Bureau of Meteorology's website - www.bom.gov.au.

Then follow the link to: *weather and warnings*, then to: *your state*, then to: *observations*, then: *thermal comfort*.

AMBIENT TEMPERATURE

The following table, produced by Sports Medicine Australia, shows a number of ambient temperature ranges suitable for hot dry days and the associated risk of heat illness. This table should be used as a guide in determining volume, duration, and intensity of training and competition.

TABLE 1: AMBIENT TEMPERATURE RANGES (SUITABLE FOR HOT DRY DAYS)

Ambient Temperature (°C)	Relative Humidity	Risk of Heat Illness	Recommended Management for Sports Activities
15 - 20		Low	Heat illness can occur in distance paddling. Caution over- motivation.
21 - 25	Exceeds 70%	Low – Moderate	Increase vigilance Caution over-motivation.
26 - 30	Exceeds 60%	Moderate	Moderate early pre-season training. Reduce intensity and duration of training. Take more breaks.
31 - 35	Exceeds 50%	High - Very High	Uncomfortable for most people. Limit intensity, take more breaks. Limit duration to less than 60 minutes per session.
36 and above	Exceeds 30%	Extreme	Very stressful for most people. Postpone to a cooler condition or cooler part of the day or cancel the session.

ACTIVATING RECOMMENDATIONS

The following minimum requirements will determine activation of the recommendations.

FOR COMPETITORS 16 YEARS AND YOUNGER

All racing must be suspended (on completion of the current race) and no further races are to commence if;

The Ambient Temperature is 34°C or greater

FOR COMPETITORS OVER 16 YEARS OF AGE

All racing must be suspended (on completion of the current race) and no further races are to commence if;

The Ambient Temperature = Relative Humidity or greater (in the below table)

Ambient Temperature (°C)	Relative Humidity
28	95% or greater
29	80% or greater
30	70% or greater
31	60% or greater
32	55% or greater
33	45% or greater
34	40% or greater
35	30% or greater
36	25% or greater
37	15% or greater
38 or greater	0% or greater

NOTE: Temperatures are to be deemed at the venue by the side of the course, NOT in direct sunlight.

RECOMMENDED GUIDELINES & ACTIONS FOR EVENTS

TEMPERATURES 30 DEGREES OR LESS

- For events where the forecast maximum temperature is 30 degrees or below, participants should exercise caution, particularly in endurance events or those that require the participants to remain in direct sunlight for an extended period of time.
- Participants should drink often to remain hydrated and implement sun smart – slip, slop, slap, seek shade and slide on sunglasses.
- No event modifications are recommended, however distance events are best held in the coolest part of the event period.

TEMPERATURES BETWEEN 31 AND 37 DEGREES (INCLUSIVE)

- For events where the forecast maximum temperature is between 31 and 37 degrees (inclusive), participants should exercise caution, particularly in endurance events.
- Distance events should be scheduled in the coolest part of the event program
- Athletes should carefully consider the number of events they compete in over the course of the competition, particularly when temperatures reach the higher end of this range.
- Australian Canoeing will provide shade at event for athletes and officials where possible.
- Participants should drink often to remain hydrated and implement sun smart – slip, slop, slap, seek shade and slide on sunglasses.
- Modifications to the competition program should be considered.

TEMPERATURES BETWEEN 38 AND 40 DEGREES (INCLUSIVE)

- For events where the forecast maximum temperature is between 38 and 40 degrees (inclusive), participants should exercise extreme caution.
- Australian Canoeing sanctioned events will revert to modified programming with respect to levels of exertion required and the duration of the event.
- Events will be postponed or rescheduled to commence where possible.
- Athletes and Officials, should consider reducing the number of events in which they participate.
- All officials will be required to leave the field and take a 10 minute break for every hour of competition.
- Participants should drink often to remain hydrated and implement sun smart – slip, slop, slap, seek shade and slide on sunglasses.

TEMPERATURES 41 DEGREES AND ABOVE

- Australian Canoeing events will be cancelled when the temperature reaches 41 degrees or above.

6. REQUIREMENTS OF COMPETITION MANAGER

- Event Directors, must have access on-site or access to the BOM website to measure temperature and humidity.
- Once the air temperature reaches 28°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, Event Directors must ensure that all competitors, coaches, officials, spectators etc. involved in the regatta are made aware of the action - and made aware of procedures involving the next round of scheduled races.
- Once the Extreme Heat Recommendations are invoked, the 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 Event Director's closest advisor on medical matters is a doctor. If, the Doctor is unavailable for consultation, then a registered Paramedic or Nurse should be consulted.

7. IMPORTANT INFORMATION AND WHO SUSPENDS/POSTPONES/CANCELS RACING

- Australian Canoeing reserves the right to cancel any competition at its absolute discretion if it is deemed that the environmental conditions, such as extreme humidity, present a serious health risk to athletes and officials, even if temperatures fall within the acceptable levels detailed within this policy document
- The Competition Committee has the power to suspend racing or postpone any race on account of the weather conditions.
- The Competition Committee will consult with the Technical Delegate, Event Director and the event's doctor and may invoke the Extreme Heat Recommendations if they believe 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.
- It is recommended that events be called off if it is thought ambient temperature is likely to rise above 38°C.
- During events of duration longer than 3 hours it is recommended that the ambient temperature be recorded at 30 minute intervals.

8. PRECAUTIONS FOR REDUCING THE RISK OF HEAT INJURY

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. Precautions for reducing heat injuries include:

FLUIDS

- **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). Diluted sports drinks, cordial and fruit juices should also be made available or recommended. Not only will this make the fluids more palatable but it will be beneficial for replacing fluids, energy and electrolytes lost during exercise. It will delay the onset of exercise-induced exhaustion and hence aid in the prevention of heat stroke.
- It is recommended that officials and participants drink at least 7-8ml of fluid per kg of body mass to diminish the risk of heat illness.
- Fluid should begin to be consumed at least two hours before exercising to promote adequate hydration.
- Thirst is a poor indicator – it is a late signal of severe fluid loss.
- 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.

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.

PUBLIC ANNOUNCEMENTS

- It is recommended that during events, public announcements be regularly made reminding those at the event to keep drinking water, apply sunscreen and remain in the shade whenever possible. This ensures the association is discharging its duty of care to its members.

12. SYMPTOMS OF HEAT INJURY OR HEAT STROKE

SYMPTOMS OF HEAT EXHAUSTION

Dehydration can lead to Heat Exhaustion. Symptoms of heat exhaustion may include:

- High heart rate
- Dizziness
- Headache
- Loss of endurance / skill
- Confusion
- Nausea
- Cramps
- The skin may still be cool/sweating, but there will be signs of developing vasoconstriction, e.g. pale colour.
- They will pass little urine, which will be highly concentrated.
- They may collapse on cessation activity.

If you have these symptoms, you should stop competing, drink more fluids and cool down (seek medical treatment if symptoms do not improve rapidly).

EMERGENCY PLAN FOR HEAT EXHAUSTION

If a person is showing any symptoms of heat exhaustion take the following action:

- Stop the person
- Lie the person down, preferably in shaded area out of direct sunlight
- Loosen and remove excessive clothing
- Cool by fanning
- Give cool water to drink if conscious
- If the person is confused or unable to drink water seek medical help immediately.

SYMPTOMS OF HEAT STROKE

Severe dehydration may lead to heat stroke, which is potentially fatal and must be treated immediately by a medical practitioner. Participants who keep participating when suffering from heat exhaustion may experience heat stroke. Heat stroke can occur even when drinking plenty of fluid. It is important to cool the person down as quickly as possible. Heat stroke symptoms include:

- Dry skin
- Confusion
- Collapsing

EMERGENCY PLAN FOR HEAT STROKE

If a person is showing any symptoms of heat stroke take the following action:

- Call a Doctor or Ambulance immediately
- Stop the person
- Lie the person down
- Loosen and remove excessive clothing
- Cool by fanning
- Give cool water to drink if conscious
- Apply wrapped ice packs to groin and armpits
- SEEK MEDICAL ASSISTANCE

For more information on heat related injuries refer Sports Medicine Australia website <http://sma.org.au/>

References used in the compiling of these recommendations:

Canoe South Australia
Athletics South Australia
Rowing Australia
Sports Medicine Australia