

## HEAT AND SUN POLICY

Adapted from Sports Medicine Australia hot weather guidelines.

Sports Medicine Australia has produced this set of guidelines. These guidelines are based on the latest research as well as the expertise of SMA's medical scientific members. The guidelines have been adopted to the specific demands of the sport of triathlon in the Northern Territory.

### Background

Most people understand the importance of physical activity for good health but it is just as important that, when levels of activity rise, the risk of harm is minimised. And it is even more important for those who have not recently or regularly taken part in sport or physical activity.

These guidelines are not binding, but SMA reminds all parties that they must act responsibly. We encourage a common sense approach and consideration of the comfort and well-being of all individual participants and officials. Modification or cancellation of events, training or withdrawal from participation may be appropriate event in circumstance falling outside these recommendations.

Triathlon clubs need to be aware of the difficulty of setting a "one size fits all" guidelines in this area. For normally healthy active people, the dangers from heat illness are likely to arise from prolonged, high intensity exercise such as Standard distance or Long course triathlons lasting over 60 mins in duration.

One area of higher risk for organiser of the community level participation events, is in the conduct of come and try races. These events are more likely to see new participants push themselves beyond their normal boundaries of activity and organisers need to take extra precautions.

However at any time, high intensity exercise in a hot environment, with the associated elevation of the body temperature, can lead to heat illness. Heat illness in sport presents as heat exhaustion or the more severe heat stroke. The following paragraphs outline the accepted definition and appearance of heat exhaustion and heat stroke.

### Heat Exhaustion

- Characterised by a high heart rate, dizziness, headache, loss of endurance/skill/confusion and nausea.
- The skin may still be cool/sweating, but there will be signs of developing vasoconstriction (eg pale in colour)
- The rectal temperature may be up to 40 degrees and the athlete may collapse on stopping activity. Rectal temperature should only be measured by a Doctor or Nurse.

To avoid heat exhaustion, if people feel unwell during exercise they should immediately cease activity and rest. Further benefit comes if the rest is in a shaded area with some passing breeze (from a fan if necessary) and the person takes extra hydration. Misting or spraying with water

can also help. Race Directors should discuss the possibility of heat exhaustion at pre race briefings.

## Heat Stroke

- Characteristics are similar to heat exhaustion but with dry skin, confusion and collapse
- Heat Stroke may arise in an athlete who has been identified as suffering from heat exhaustion and has persisted in further activity.
- Core temperature measured in the rectum is the only reliable diagnosis of a collapsed athlete to determine heat exhaustion and has persisted in further activity.

This is a potentially fatal condition and must be treated immediately. It should be assumed that any collapsed athlete is at danger of heat stroke. The best first aid measures and “strip/soak/fan.”

- Strip off any excess clothing
- Soak with water
- Fan
- Ice placed in groin and armpits

The aim is to reduce body temperature as quickly as possible. The athlete should immediately be referred for treatment by a medical professional.

## Dehydration

Dehydration is fluid loss which occurs during exercise, mainly due to perspiration and respiration. It makes an athlete more susceptible to fatigue and muscle cramps. Inadequate fluid replacement before, during, and after exercise will lead to excessive dehydration and may lead to heat exhaustion and heat stroke. To avoid dehydration, Sports Medicine Australia recommends that:

Athletes drink approximately 500ml (2 glass) in the 2 hours prior to exercise.

During exercise longer than 60 minutes, 2-3 cups (500-700mls) of cool water or sports drinks are sufficient for most sports.

After exercise replenish your fluid deficit to ensure that you are fully re-hydrated, but not over hydrated.

Refer to SMA's free DRINK Up brochure available as a web download at [www.smartplay.com.au](http://www.smartplay.com.au)

Points for Triathlon Clubs and Race Directors to consider:

- Will your athletes and officials be able to consume enough water during the event?
- Even a small degree of dehydration will cause a decrease in performance.
- Take care not to over hydrate. Drinking too much fluid can lead to a dangerous condition known as hyponatraemia (low blood sodium). Aim to drink enough to replace the lost fluids, but not more than that.

How should triathlon clubs apply these guidelines in their general assessment of risk, and in their race and training? The following are factors to consider before cancelling or modifying a sporting event or training, and organisers need to remember not only to take racing triathletes, into account, but also technical officials, water safety and first aid and any other volunteers. The following tables provide estimates of risk related to the weather and also the guidelines to managing activity in order to minimise heat stress.

## Environmental Factors

1. Temperature. Ambient temperature is the most easily understood guide available, and is more useful on hot days.

Ambient temperature	Relative humidity	Risk of Heat Illness	Possible management for sustained physical activity
15 – 20C	Low	Heat illness can occur in distance running	Caution over-motivation
21 – 25C	Exceeds 70%	Low - moderate	Increase vigilance. Caution over-motivation
26 – 30C	Exceeds 60%	Moderate	Moderate early pre-season training. Reduce intensity and duration of training or racing.
31 – 35C	Exceeds 50%	High – very high	Uncomfortable for most people. Limit intensity, take more breaks. Limit duration to less than 60 minutes per session and/or start races very early in the day so as to give participants the opportunity to finish before ambient temperature reaches this level.
36C and above	Exceeds 30%	Extreme	Very stressful for most people. Postpone to a cooler conditions (or cooler part of the day) or cancellation.

## 2. Acclimatisation of the individual

Acclimatisation of the individual. Preparation for hot conditions should include a period of acclimatisation to the conditions. Especially if travelling from a cold climate.

Regular exercise in hot conditions will facilitate adaptation to help prevent performance deteriorating, or the athlete suffering from heat illness, during later competitions. Sixty minutes acclimatisation activity each day for 7-10 days provides substantial preparation for safe exercise in the heat.

## 3. Fitness level/ athletic ability of participant

A Number of physical/ physiological characteristics of the athlete will influence the capacity to tolerate exercise in the heat, including body size and endurance fitness. In endurance events, accomplished but non-elite triathletes, striving to improve their performance, may suffer from heat stress. The potential for heat related illnesses would be exacerbated if they have not acclimatised to the conditions and have failed to hydrate correctly.

Overweight and unconditioned athletes, officials and volunteers will generally also be susceptible to heat stress.

## 4. Age and gender of participants

Female participants may suffer at risk in the heat. Prior to puberty, the sweating mechanism, essential for effective cooling, is poorly developed. The ratio between weight and surface area in the child is also such that the body absorbs heat rapidly in hot conditions. In practical terms, child athletes must be protected from over-exertion in hot climates to exercise in the heat, they take longer to do so than adults. Coaches should be aware of this and limit training for non-acclimatised children during exposure to hot environments.

Children tend to have a more common sense approach to heat illness than adults. They listen to their bodies and will slow down or stop if they feel distressed. Children should never be forced to continue sport or exercise if they appear distressed or feel unwell.

Veteran participants may also cope less with exercise in the heat. Reduced cardiac function is thought to be responsible for this effect.

## 5. Predisposed medical conditions

It is important to know if participants (triathletes and volunteers) have a medical condition or are taking medication that may predispose them to heat illness. Examples of illnesses that will put the participant or volunteer at high risk include asthma, diabetes, pregnancy, heart conditions and epilepsy. Participants and volunteers who presents with an illness such as a virus, flu, gastro or who are feeling unwell are at an extreme risk of heat illness if exercising in moderate to hot weather.

## 6. Other factors to consider

Preventative measures can be undertaken to minimise heat injuries. Examples include the provision of shade, hats, appropriate sunscreen, spray bottles and drinking water. It is important to have trained personnel available to manage heat injured and designated recovery area for

patients. In situations where heat problems may be expected, an experienced medical practitioner should be present.

Heat Stroke is potentially life threatening. Any indication of this condition should be immediate referred for medial assessment.

### Policy Review

This policy will be reviewed annually to ensure it remains relevant and reflects both the community expectations and legal requirements.

Version Control			
Date	Author	Approved By	Review Date
30/09/2024	Lucy Berk, NT State Services Manager	NT Triathlon Board	30/09/2025