

POLICY

Preventing Injury & Illness due to Extreme Weather Conditions



POLICY No: 7002
EFFECTIVE: November 2020

SwimmingSA has a responsibility to take a positive role in educating and increasing the awareness of its registered members in regards to the dangers of physical activity in extreme weather conditions. SwimmingSA acknowledges it has a responsibility and duty of care to ensure the safety of participants, officials and spectators, particularly in competitions and events conducted by and on behalf of SwimmingSA. With this in mind, the SwimmingSA Extreme Weather Policy for affiliated clubs, members, and SwimmingSA sanctioned competitions, events and training has been developed in consideration of the guidelines produced by Sports Medicine Australia (SMA) for hot weather and also in consideration of the risks associated with other extreme weather conditions such as electrical storms.

This policy applies to all members, administrators, officials, coaches and athletes associated with SwimmingSA and its affiliated clubs.

The following recommended guidelines have been produced by SwimmingSA to assist our association, its affiliated clubs and members in deciding whether to modify, cancel or postpone events or training.

In addition to the SwimmingSA Policy below resources and checklists are available from the SMA website - <http://sma.org.au/resources-advice/policies-guidelines/hot-weather/>

HOT WEATHER

Where possible, especially between December and March, Swimming Carnivals and training schedules should be programmed to start before 9 a.m. or after 5 p.m. Early morning or night events minimise the risk of encountering unacceptable conditions at these times of year. This is especially so where these activities are to be conducted in locations with a history of relatively high temperatures or lightning. However, in extreme situations temperatures after 5 pm and into the evening may still be deemed to be too high.

At ambient **temperatures greater than or equal to 38 degrees Celsius** there is a risk of heat injury to all children, adolescent participants and vulnerable persons. All clubs involving junior participants (if possible) should measure ambient air temperature on-site to ensure local conditions are accurately measured when implementing this policy. Keep 38 degrees in mind when formulating your own club policy.

Implementation – Checking Forecast Weather Conditions for Events

Event Organisers, Coaches, Club Committees to follow:

Be prepared early when the potential for hot weather is a possibility so that everyone involved is aware that changes may have to be made. Start checking a week ahead as outlined in the table below.

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Time	Source	**Action
7 days prior to event	<p>Visit the Bureau of Meteorology website (www.bom.gov.au)</p> <ul style="list-style-type: none"> From the BOM home page select <i>Climate and Past Weather</i> from the boxes under Services. From the menu on LHS of screen, select <i>Weather Station Data</i>. From the choices, select <i>Temperature</i> and then <i>Monthly</i>. Enter your location and select <i>Find</i>. Click on the arrow to find <i>Matching Towns</i> and select the nearest (often an airport). In a few places the nearest data does not cover recent years so select the nearest which has recent data. Click as appropriate and this gives a number in the box below. Click <i>Get Data</i> and you have monthly means for many years. <u>Probably calculating the average of the last 5 years is the best guide to work with.</u> 	<ul style="list-style-type: none"> Calculate the average for the past 5 years of the mean monthly temperature for your venue for the month in question. Note the current forecast for the event date.
5 days prior to event	<p>Utilise 7 day town forecast to <u>review</u> forecast for day of event. Has it changed?</p>	<ul style="list-style-type: none"> Make preliminary contact with event Referee and event attendees and advise them of the possible need to make changes. Club Committee to consult with coach regarding training schedules for the coming week
2 days prior to event	<p>Utilise 7 day town forecast to review forecast for day of event</p>	<p>In conjunction with Referee (if a competition) the Club Meet Director and/or Committee should make the last pre-activity decision with regards to any changes required due to undesirable weather and then inform attendees of changes made.</p>

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1 day prior to event	Utilise 7 day town forecast to review forecast for day of event	Recontact event attendees and remind them of: <ul style="list-style-type: none">• weather conditions at your venue• any planned changes to activity• amenities available to assist with undesirable weather
Day of / during event	Utilise the daily forecast to review the forecast	Consult with Referees with regards to further changes required. Provide an update to club team managers with regards to process/outcomes due to undesirable weather conditions.

Timing of Training or Competitions – OUTDOOR Venues

Use the above table as a guide to:

Schedule training and competitions involving moderate to high intensity exercise to avoid the hottest part of the day. Early morning or night events or training reduce the risk of encountering stressful conditions

- If the forecast is less than or equal to the monthly mean temperature activity will take place at the published time
- If the forecast is greater than 2 degrees above the monthly mean temperature a modified** version of the activity will be conducted
- If the forecast temperature is equal to or greater than 5 degrees above the monthly mean temperature the activity should be modified and if possible the activity should be cancelled, rescheduled or relocated
- If the forecast temperature is equal to or greater than 10 degrees above the monthly mean temperature the activity should be cancelled and/or rescheduled.

**Modifications could include:

- Start 7:30/8am and finish at 2pm or a 6:00pm start to conclusion. Do not automatically conclude that temperatures after 6.00pm will be cool enough. Check hourly temperatures in preceding days.
- Reduction/combining of events (Meet Director and Referee to determine)
- Reduction in length of training session
- Reduction of intensity of training session
- Provision of access to water for spectators at regular intervals

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****Action is required if:**

- the forecast is greater than 2 degrees above the monthly mean temperature a modified** version of the activity will be conducted
- the forecast temperature is equal to or greater than 5 degrees above the monthly mean temperature the activity should be modified and if possible the activity should be cancelled, rescheduled or relocated
- If the forecast temperature is equal to or greater than 10 degrees above the monthly mean temperature the activity should be cancelled and/or rescheduled. If the forecast temperature is within the 10 degree range but **above 41 degrees** the activity should be cancelled or rescheduled.

Timing of Training or Competitions – INDOOR Venues

In venues that are not equipped with adequate airflow systems, schedule training and competitions involving moderate to high intensity exercise to avoid the hottest part of the day. Early morning or night events or training reduce the risk of encountering stressful conditions

- If the forecast is less than 38 degrees Celsius activity will take place at the published time
- If the forecast temperature is between 38-41 degrees Celsius a modified** version of the activity will be conducted.
- If the forecast temperature is above 41 degrees Celsius at a minimum the activity should be cancelled or relocated

****Modifications could include:**

- 8.00am Start - 12.00noon completion or a 6:00pm start – (conclusion)
- Reduction/combining of events (Meet Director and Referee to determine)
- Reduction in length of training session
- Reduction of intensity of training session
- Provision of access to water for spectators at regular intervals

Implementation - Event Organisers, Coaches and/or Club Committees should follow the procedures outlined previously for local temperature monitoring.

****Action required if:**

- the forecast temperature is between 38-41 degrees Celsius a modified** version of the activity will be conducted.
- the forecast temperature is above 41 degrees Celsius at a minimum the activity should be cancelled or relocated

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THUNDERSTORMS

Thunderstorms present a significant risk to athletes, coaches, and officials when they occur in the vicinity of training or competition and event locations. In particular, thunderstorms which occur in and around an open area such as a swimming pool present a significant risk to life. Storms can also develop quickly.

It is widely recognised that a significant lightning threat extends outward of the thunderstorm cloud for approximately 10-15 kilometres, thus, when a storm is within this range, appropriate action should be taken to minimise the danger to participants. As a general guide, the ability to hear thunder is usually an indication that the storm is within 10-15 kilometres or your location. In the event of the threat of a thunderstorm, the following actions should occur:

- Prior to and during training, competition or events, the BOM weather forecast should be monitored, and in particular the presence of a severe weather warning indicating a chance of thunderstorms
- If a severe weather warning is in effect or if thunderstorms are predicted, cancelling or postponing the training session, competition or event should be strongly considered. Check with the BOM to see if thunderstorms are predicted within the 10-15 km radius. Thunderstorms in general are often predicted but do not eventuate in the local area.

In the event that thunder is heard or a thunderstorm occurs during training, competition or events the following action will be taken:

- Pool staff have overall control of any decisions, generally in conjunction with the Club and Referees..
- The Referee/Meet Director or Coach/Club Committee will ask all participants to immediately leave the pool or competition / training area and proceed inside a substantial building such as a club room, office block, school or house
- It should be noted that small outdoor buildings, rain shelters and sheds are not considered substantial buildings and are not deemed to be a safe area to shelter
- In the event that a substantial building is not available for shelter, a hard- topped metal vehicle with windows closed also provides good protection, but contact with metal surfaces in the vehicle should be avoided
- Evacuation from the area to a safe location will be coordinated through PA announcements where available
- Individuals should shelter inside away from windows and avoid contact with metal surfaces until the storm has passed
- Any contact with electrical equipment and wiring should be avoided during an electrical storm
- Corded phones should not be used during an electrical storm. Mobile phones and cordless phones are safe to use

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- Once an electrical storm has passed, activity should not resume for another 30 minutes as electrical charges can linger in clouds after the storm has passed
- At this time, the Referee or designated person will assess the area for damage before determining whether competition, training or the event should resume
- No individuals will be permitted to return to the pool or competition / training area until the all clear is given by the Referee or designated person

STRONG WINDS

Strong winds present a safety risk to athletes, coaches, officials, staff and spectators in and around the pool environment. In the event of the threat of occurrence of strong winds, the following actions should occur:

- Prior to and during training, competition or events, the BOM weather forecast should be monitored, and in particular the presence of a severe weather warning indicating strong winds
- If a severe weather warning is in effect or if strong winds are predicted, cancelling or postponing the training session, competition or event should be strongly considered
- If strong winds are predicted, it may be advisable to take down all temporary tent-like structures to avoid the risk of injury if they move.

In the event that strong winds occurs during training, competition or events the following action will be taken:

- The Referee or designated person will ask all participants to immediately leave the pool or competition / training area and proceed inside a substantial building such as an office block, school or house
- It should be noted that small outdoor buildings, rain shelters and sheds are not considered substantial buildings and are not deemed to be a safe area to shelter
- In the event that a substantial building is not available for shelter, a hard- topped metal vehicle with windows closed may also provide good protection
- Evacuation from the area to a safe location will be coordinated through PA announcements where available
- Individuals should shelter inside away from windows until the threat has passed
- Once strong winds have ceased, the Referee or designated person will assess the pool area for damage before determining whether competition, training or the event should resume.
- No individuals will be permitted to return to the pool or competition / training area until the all clear is given by the Referee or designated person

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LOW VISIBILITY

Low visibility can present a safety risk to athletes, coaches, officials, staff and spectators in and around a pool environment. In the event of the threat of conditions resulting in low visibility, the following actions should occur:

- Prior to and during training, competition or events, the BOM weather forecast should be monitored, and in particular the presence of a severe weather warning indicating conditions of low visibility
- If a severe weather warning is in effect or if low visibility is predicted, cancelling or postponing the training session, competition or event should be strongly considered

In the event that conditions create a situation of low visibility during training, competition or events that reduced visibility to less than 50 metres, the following action will be taken:

- The Referee or designated person will immediately cease the competition, training or event
- Where possible, announcements will be made via a PA system or coordinated through the use of event radios
- Once visibility has improved to beyond 50 metres, the Referee or designated person will make a decision regarding whether to continue with or cancel the event

INTENDED USE

This document is intended to be used as a guide only. Ultimately, every person 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 illness or injury in extreme weather conditions.

CENTRAL MANAGEMENT

To ensure Clubs and officials have adequate information a link to this policy will be made available on the SwimmingSA website and regularly updated for association representatives.

APPROVAL AND REVIEW

This policy was last updated and adopted by the Board of SwimmingSA on the 16 November 2020

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ATTACHMENTS TO HEAT POLICY

Factors to Consider - Age and Gender of Participant

The physiological and structural difference between children and adults places children at a greater risk of suffering from heat illness. These differences impact on a child's ability to respond to environmental heat and acclimatise to heat. These differences include:

- A larger surface area/body mass ratio which affects their ability to dissipate heat when environmental temperature is greater than skin temperature. This can be an advantage when heat loss is necessary, but is a disadvantage when radiant or convective heat gain occurs.
- Immature sweating mechanisms which require a greater increase in body temperature before the onset of sweating.
- Fewer and smaller sweat glands which limits the production of sweat.

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, especially with intense or endurance exercise.
- Although children can acclimatise 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.

Female Participants may suffer more during exercise in the heat, due to their greater percentage of body fat.

Young Children are especially at risk in the heat. Prior to puberty, the sweating mechanism, essential for effective cooling, is poorly developed.

Veteran Participants may also cope less well with exercise in the heat. This may also be true of Technical Officials participating in the heat.

N.B. Children tend to have a more "common sense" approach to heat illness than adults. They "listen to their bodies" more and will usually slow down or stop playing if they feel distressed in the heat. ***On no account should children be forced to continue sport or exercise if they appear distressed or complain about feeling unwell.***

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Strategies for Reducing the Risk of Heat Illness

The following strategies should be considered for sport and physical activities involving children.

1. *Shade and Drinks*

Organisers of activities which are conducted under hot conditions must provide sufficient shade, and regular drinking opportunities. This is particularly critical where the fitness and state of acclimatisation of the young participants are uncertain. It is recommended that water or sports drinks are made available whenever children are being active. More fluid however, appears to be consumed by young people when the drinks offered are perceived as palatable to them. Therefore, for children and adolescents having trouble drinking adequate tap water, flavoured drinks such as commercially available sports drinks may need to be considered. Conversely, the high energy content of some flavoured drinks may be unnecessary during exercise in athletes who have a genuine rather than an aesthetic need to lower body fat levels.

It is recommended that young athletes begin regular drinking routines using water or drinks such as sports drinks during training and competition. Regular and effective drinking practices should become habitual to young athletes before, during, and after activity. Individuals should monitor weight changes before and after workouts and know the amount of fluid that they are likely to require. The electrolyte content of some sports drinks consumed following activity may shorten the time taken to recover, particularly in well-trained young athletes who sweat considerably more than their sedentary peers.

2. *Acclimatisation and Overweight Children*

In addition to the risks associated with activity in the heat for unfit and un-acclimatised young people, coaches/supervisors of overweight children and adolescents should take extra precautions to lessen the potential for heat gain. It is recommended that whenever activity in hot conditions is unavoidable with these children, coaches /supervisors decrease the volume and duration of physical activity, and increase opportunities for drinking, rest, and shade as a matter of priority.

At the onset of hot weather, the young athlete may take longer to acclimatise. It is therefore recommended that training volumes (duration and intensity) decrease during the first few weeks of hot weather. Increased times for rest, using access to shade more frequently, and increasing the number of mandatory drinking breaks are recommended for the young athlete when the weather becomes noticeably hotter.

3. *Clothing*

Light coloured, loose fitting clothes, of natural fibres or composite fabrics, with high wicking (absorption) properties, that provide for adequate ventilation are recommended as the most appropriate clothing in the heat. This clothing should further complement the existing practices in Australia that protect the skin against permanent damage from the sun.

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In addition, SwimmingSA and Clubs select uniforms that minimise heat gain and coaches, instructors, and parents encourage children and adolescents to wear appropriate clothing in layers which can be easily removed during activity.

Clothing mentioned in this policy means the use of:

- *hats - wide-brimmed (minimum brim width of 8cm.) with dark (non-reflecting) underside of the brim, or "legionnaire style" hats - those having side pieces protecting the ears and neck*
- *long-sleeved shirts* with high neck collars – made of UPF 50+ material (close-weave material that blocks UVR) Note: Shirt sleeves are not to be rolled up.*
- *shorts - loose and long-legged*

Referees, Meet Director and hosting Club/s will promote the use of broad-spectrum water-resistant SPF 30+ sunscreen (with zinc cream on specific areas, if necessary), at all times during SwimmingSA endorsed outdoor events.

4. Heat Illness Register

To improve the understanding of children and adolescents activity in the heat, it is recommended that a register of heat-related illness be established. This may comprise a system within which all aspects of heat related illness incidents are recorded. Items of note may include the individual afflicted and their symptoms, the time of the incident, the environmental conditions, the physical activity undertaken, the immediate treatment and subsequent action taken.

The system is recommended to aid in the identification of individuals that have previously experienced some form of heat illness and therefore may require additional attention to ensure prevention strategies are adopted by these individuals.

5. Sunscreen

- Use broad spectrum, water resistant SPF 30+ sunscreen
- Apply at least 20 minutes before exposure so that cream can be "absorbed" into the skin, for effective protection.
- Reapply every 2-3 hours or more often after swimming or sweating heavily.

Note: With higher SPF sunscreens a small number of people may be sensitive to some types of sunscreens. If skin rashes occur, choose a brand designed for sensitive skin. (It is important for people who spend as much time outdoors as swimmers to maintain the highest SPF).

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How do you tell if someone has heat illness?

Heat illness may occur in strenuous sports, but may also occur in prolonged moderately strenuous physical activity in hot weather. During training and competition exercisers should “listen to their bodies”. If they start to experience any of the following conditions or symptoms and signs they should stop immediately.

Symptoms of heat illness may include:

- light headedness, dizziness
- nausea,
- obvious fatigue
- cessation of sweating
- obvious loss of skill and coordination/clumsiness or unsteadiness
- confusion
- aggressive or irrational behaviour
- altered consciousness
- collapse
- ashen grey pale skin

Serious heat illness in sport presents as heat exhaustion or heat stroke. Heat exhaustion is the more common sports-related heat illness. Heat stroke is rare, but it is a life threatening condition.

Heat exhaustion. Participants who collapse **after** exercise, are likely suffering heat exhaustion with low blood pressure (postural hypotension), but some may have heat stroke.

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.

Heat stroke is potentially life threatening. Any indication of this condition should be immediately referred for Medical assessment.