Title: Environmental Risk Management Policy and Guidelines

Policy Number: P05.001

1. Introduction:

1.1 What is the SLSSA environmental risk management policy?

Where environmental risks or other external hazards are identified, all SLSSA personnel have a duty of care to act responsibly when deciding to continue, cancel, modify or individually withdraw from SLSSA or Club activities.

There are many factors that are relevant to be considered within each situation where an environmental risk is identified which should lead to informed decision making and the appropriate management of these risks through a common sense approach.

These factors are discussed further under Environmental Risks within this policy document.

1.2 What is SLSSA's position on environmental risk management?

SLSSA members participate in various activities including patrol and surveillance, award training and assessment, competition training and carnivals (events). These activities can be subject to a wide range of environmental factors which need to be carefully considered by those participating.

SLSSA has a duty of care to its members to ensure they participate in any SLSSA related activity in an environment which takes into account their welfare, comfort, enjoyment and participation.

This policy and guidelines document has been written to assist SLSSA, its affiliated Clubs and all relevant staff and members including patrol, water cover, officials, coaches, managers, athletes and spectators when considering their duty of care responsibilities. It promotes the use of associated policies, guidelines and educational resources which provide further information to consider in the decision making process.

SLSSA reminds all personnel that they must act responsibly when making decisions and encourages a considered common sense approach in all situations.

It is a fact that there are inherent environmental risks related to SLSSA activities and it is important that members should only take part knowing that these exist. Every attempt should be made however to minimise identified risks where relevant.

It is also a responsibility of SLSSA to ensure its members are educated about these risks, how to identify and minimise the risk to themselves and/or to others who they may be responsible for.

1.3 What is an environmental risk?
An environmental risk could include any type of climatic extreme condition (hot or cold) or other natural occurrence including lightning, fog, rain, wind, rips and currents, waves or natural obstacles such as exposed rocks and unsafe beach conditions (including discarded hypodermic needles for example) which may cause harm to SLSSA staff or members. Sharks, jelly-fish, and other marine hazards provide further environmental risks which may need to be taken into consideration.

There are also further non-environmental external hazards or public safety issues which may also need to be taken into consideration when determining the risks associated with the conduct of SLSSA activities such as publicly operated motor boats, jet skis, wind surfers, kite-surfers or yachts, surfers, fisherman and swimmers not associated with the activity.

1.4 How do we educate SLSSA personnel about this environmental risk management policy?
SLSSA and its affiliated Clubs are responsible for communicating this policy to its personnel and providing further education, information and guidance in relation to this policy.

This can be achieved via specific information sessions or through established communication mediums, relevant SLSA awards and accreditation courses (officials, coaches, etc).

1.5 Environmental Risks
There are a number of environmental risks that have previously been identified and addressed appropriately by SLSSA and Clubs and are discussed below. There are others which may not have been addressed as thoroughly. These have been expanded on for appropriate discussion to occur which may give rise to further policies, guidelines, bulletins or educational requirements as they are appropriately identified, researched, documented and developed.

2. HOT WEATHER

2.1 Background & Guidelines

Exercise in the heat creates competitive demands on the cardiovascular system, which is required to increase the blood supply to exercising the muscles. At the same time it must regulate body temperature by increasing skin blood flow in order to produce sweat that keeps the body cool.

High intensity exercise in a hot environment, with the associated fluid loss and elevation of body temperature, can lead to DEHYDRATION, HEAT EXAUSTION AND/OR HEAT STROKE (collectively discussed here as thermal risks). These conditions are documented in the relevant SLSA manuals which provide further detail on their symptoms, diagnosis and treatment.

In extreme thermal risk conditions (high temperatures or humidity) it may be appropriate to cancel all coordinated activities however there are many relevant factors to consider.

Sports Medicine Australia have developed DRAFT guidelines (see Attachment 1) to assist SLSSA personnel in determining how these harms and potentially life threatening conditions can be minimised and whether or not to continue, cancel or modify your planned activity.

These Hot Weather DRAFT guidelines detail the relevant factors to consider including, not only Temperature (1), but also Clothing (2), Duration and Intensity of activities (3), Acclimatisation of the person (4), Fitness levels/Athletic ability of the person (5), Age and gender of the person (6), Opportunity to Hydrate (7), Time of the activity (8), Surface type (9), Venue and access to air-conditioning or shade (10), Predisposed medical conditions (11) and Other factors to consider (12) such as freely available water.

One single factor such as temperature is difficult to use in all situations however as a guide activities subject to ambient temperatures [hot, dry environment] 38 and above or Wet Bulb Globe Temperatures [humid environment] 30 and above should cause serious consideration of cancellation or modification acknowledging that all other factors should still be considered before making an informed decision.

When considering these factors it is relevant to recognise that most of our activities are conducted in a coastal environment where temperatures and conditions may differ significantly from inland environments and forecast temperatures. The availability of the ocean to decrease body core temperature is also a consideration as is many other opportunities to modify activities or provide the appropriate conditions to minimise the risks of heat exposure.

For example, in a hot weather environment the modification of beach based activities in favour of water based activities may provide a simple risk management approach. Similarly, altering the time and/or duration of the activity, erecting additional shade, utilising air-conditioned or well ventilated clubrooms, providing freely accessible water to all personnel, allocating appropriate breaks in activities or official duties and ensuring personnel are appropriately clothed and protected from the sun (refer SLSSA sun smart policy) are all relevant to consider to minimise the risks.

It is also relevant to acknowledge that all people are different and individually they will be exposed to a different level of thermal risk dependent on their own set of physical, physiological, psychological and genetic characteristics. Added to this are other variables including their own personal level of hydration and nutritional intake (pre, during and post activity), predisposed medical condition/s and the affects of the use of medications, drugs and/or alcohol.

In relation to these individual factors it is appropriate to educate all SLSSA personnel to their own responsibility as to whether or not they come "fit and prepared to participate" and whether they should consider modification of their own activity levels or their suitability to participate at all.

It is also appropriate to encourage team managers, coaches, officials and parents to assist with this education, particularly of minors, and also to be alert for the early warning signs of heat exposure when thermal risk is high and educate our personnel on this also.

All SLSSA personnel are encouraged to assist communicate this issue to others and for those invested with the responsibility of decision making in relation to SLSSA or Club activities consider these factors and how it may be applicable to the various situations that may be encountered.

2.2 Guidelines Appendix – Hot Weather

HOT WEATHER GUIDELINES
(Source: SPORTS MEDICINE AUSTRALIA)

Factors to consider before cancelling a sporting event

The following are factors to be considered in cancelling or modifying of sporting events or training.

Remember to not only take players into account, but to also remember Umpires, Officials and Volunteers.

SMA has compiled a checklist and risk management sheet to guide your association in making that decision.

1. Temperature

The Ambient Temperature

- Suitable for hot, dry days

AMBIENT TEMPERATURE	RISK OF THERMAL INJURY
25 – 31	Moderate
32 – 37	High
38 and above	Extreme

OR

WBGT

- Suitable for hot, humid days

WBGT	RISK OF THERMAL INJURY
23 – 27	Moderate
28 – 29	High
30 and above	Extreme

Guidelines for training

- At extreme thermal risk, cancel training (allowing swimming)
- At high thermal risk, modify training

2. Clothing

- Type of clothing is vital in minimizing health risks associated with exercise in heat.
- Fabrics that minimize heat storage and enhance sweat evaporation should be selected.
- Light coloured, loose fitting clothes, made 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 protects the skin against permanent damage from the sun.
- This should be applied to the clothing worn by players, umpires, other officials and volunteers.

3. Duration and Intensity of an event

- The combination of extreme environmental conditions and sustained vigorous exercise is particularly hazardous for the athlete. The greater the intensity of the exercise the greater the risk of heat related symptoms, eg distance running is more of a problem than stop-start team events.
- Player and Official rotation may also be considered
- A reduction in playing time and extending rest periods with opportunities to re-hydrate during the event would help safe guard the health of participants.
- Provision of extra water for wetting face, clothes and hair is also important.
- A fan to enhance air movement would be beneficial

4. Acclimatisation of the Participant

- Acclimatisation of the Participant includes the umpires, other officials and volunteers as well as the players.
- Preparation for exercise under hot conditions should include a period of acclimatisation to those conditions, especially if the athlete is travelling from a cool / temperate climate to compete under hot / humid conditions.
- It has been reported that children will acclimatize slower than adults.
- Regular exercise in hot conditions will facilitate adaptation to help prevent the athlete's performance deteriorating, or suffering from heat illness, during later competitions. A period of 7-10 days of 60 minutes acclimatisation activity each day provides substantial preparation for safe exercise in the heat.

5. Fitness Levels / 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 an accomplished yet non-elite runner, striving to exceed 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.
- An overweight and unconditioned athlete, umpire, official and volunteer will generally also be susceptible to heat stress.
- Please refer to Sports Medicine Australia's (SA Branch) free DRINK UP brochure available from your local National Pharmacies store.

6. Age and Gender of Participant

- 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. 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 when required to exercise for 30 minutes or longer.
- 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.
- Veteran Participants may also cope less well with exercise in the heat. Reduced cardiac function is thought to be responsible for this effect.

7. Rules of the Game (Hydration Opportunities)

- Will your players and officials be able to consume enough water during the event?
- To avoid excessive dehydration during exercise in the heat, fluid (preferably water) should be consumed before, during and after exercise.
- Even a small degree of dehydration will cause a decrease in performance.
- Associations may consider dividing games into shorter playing periods rather than halves to allow for extra breaks.
- Coaches may consider alternative training times and venues during Hot Weather

8. Time of Day

- Avoid the hottest part of the day (usually 11:00am - 3:00pm). Scheduling events outside of this time should be a consideration throughout any summer competition, training or event, regardless of the temperature.

9. Surface Type

- A shaded / protected grass exercise surface does not attract and retain as much heat as other surfaces (eg solid black asphalt.)
- The exercise surface type and the amount of direct sunlight vary significantly with different sporting activities and therefore must be analysed for each individual sport.

10. Venue of an Event

- An air-conditioned indoor venue will provide less of a problem whilst a hot indoor venue or an outside venue without shade cannot constitute an acceptable environment.
- Airflow should be considered, including fans in change rooms or appropriately placed.

11. Predisposed Medical Conditions

- It is important to know if any of your athletes, umpires, officials or 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 official at a high risk of Heat Illness include: asthma, diabetes, pregnancy, heart conditions and epilepsy. Some medications and conditions may need special allowances.
- Participants and officials who present with an illness such as a Virus, Flu, Gastro, or feeling unwell are at an extreme risk of Heat Illness if exercising in Moderate to Hot Weather.
- Participants or officials who may be affected by drugs or alcohol may be at an extreme risk of Heat Illness if exercising in moderate to hot weather.

12. 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 injuries.
- 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 immediately referred for Medical Assessment.

3. COLD WEATHER

3.1 Background & Guidelines

Similar to a hot environment, exposure to a cold environment can also lead to thermal risks such as HYPOTHERMIA which is associated with a decrease in core body temperature. This condition, along with other effects from exposure to the cold are also discussed in the relevant SLSA manuals which provide further detail on their symptoms, diagnosis and treatment.

It is appropriate to recognize that there are SLSSA policies regarding rotation of water cover personnel, conduct of award examinations, inclement weather patrols, etc that are relevant to implement, abide by or are in force to minimise the risks associated with Hypothermia.

Once again in extreme thermal risk (cold weather) conditions it may be appropriate to cancel all coordinated activities however there are once again many factors relevant to consider.

In relation to this situation there is no relevant industry developed guidelines to assist SLSSA personnel in determining how these harms and potentially life threatening conditions can be minimised and whether or not to continue, cancel or modify your planned activity. However, in reference to the Heat Policy DRAFT guidelines, the factors to consider would be similar albeit approached from the opposite perspective.

The relevant factors to once again consider would therefore include Temperature, Clothing, Duration and Intensity of activities, Acclimatisation of the person, Fitness levels/Athletic ability of the person, Age and gender of the person, Opportunity to Fuel Up (warm drinks and food), Time of the activity, Surface type, Venue and access to warmth and shelter, Predisposed medical conditions and any Other factors to consider such as availability of hot showers post exposure and individual body fat of personnel.

When considering these factors it is relevant to once again recognize that most of our activities are conducted in a coastal environment where temperatures and conditions may differ significantly from inland environments and forecast temperatures. The ocean water temperature will also vary considerably to the on land ambient temperatures forecast and this may not be readily available for consideration.

The impact of the ocean to decrease core body temperature over prolonged exposure is an obvious consideration but often an overlooked risk is related to the wind chill factor and increased cooling effects on exposed, in-appropriately clothed or wet individuals. This includes patrol, water cover, officials, as well as participants which will need to be taken into consideration.

This can also occur at moderate ambient temperatures (on land) and ocean temperatures which would not be considered 'relatively' cold, but the above factors, compounded by other individual contributing factors such as a young person with low body fat, could increase the thermal risks, to that individual, to those associated with extreme cold weather conditions.

There are many opportunities to once again modify activities or provide the appropriate conditions to minimise the risks of hypothermia.

For example, in a cold weather environment the modification of water based activities in favour of beach based activities may provide a simple risk management approach. Similarly, altering the time and/or duration of the activity, erecting additional shelter, utilising heated clubrooms, providing warm drinks, allocating appropriate breaks in activities or rotating official duties and ensuring personnel are appropriately clothed and protected from the cold (wetsuits, spray jackets and thermal clothing where appropriate) are all relevant to consider to minimise the risks.

In relation to the individual factors it is appropriate to educate all SLSSA personnel to their own responsibility as to whether or not they come "fit and prepared to participate" and whether they should consider modification of their own activity levels or their suitability to participate in this environment.

It is also appropriate to encourage team managers, coaches, officials and parents to assist with this education, particularly of minors and also to be alert for the early warning signs of hypothermia when thermal risks are high and educate our personnel on this also.

All SLSSA personnel are encouraged to assist communicate this issue to others and those invested with the responsibility of decision making in relation to SLSSA or Club activities consider these factors and how it may be applicable to the various situations that may be encountered.

4. LIGHTNING

4.1 Background & Guidelines

A. INTRODUCTION

In statistical terms, lightning poses a greater threat to individuals that almost any other natural hazard in Australia, accounting for five to ten lives and well over 100 injuries annually. These figures are likely to increase in line with the growing proportion of people who are engaging in outdoor recreational activities.

Of the many lightning strike injuries each year, about 80 are due to people using normal telephones during thunderstorms when the phone system may suddenly become part of a highly charged electrical circuit. Related injuries may include hearing damage, burns and electrocution.

B. WHAT IS LIGHTNING?

Lightning is the discharge produced when differences between ground and atmospheric electrical charge are large enough (several hundred million volts) to overcome the insulating effects of air.

Lightning strikes can occur within the cloud, between clouds or between clouds and the ground. An average thunderstorm can release several hundred megawatts of electrical power.

Thunder is the sound produced by the explosive action of air heated by the lightning strike to temperatures as high as 20,000 degrees Celsius.

C. PROTECTION AGAINST LIGHTNING STRIKES

C.1 Outdoor protection

i. With an approaching thunderstorm, all persons should be advised to leave the water and clear the beach immediately. The Patrol Captain should remove the patrol flags, close the beach and then the patrol should retire to the shelter of the clubhouse, maintaining a surveillance lookout from there.
ii. Seek shelter in a 'hard top' vehicle or building - avoid small structures,
iii. patrol shelters, fabric tents and isolated or small groups of trees.
iv. If in the open, away from shelter, crouch down (singly), preferably in a
v. hollow, with feet together and remove metal objects from head and body.
vi. Do not lie down but avoid being the highest object in the vicinity.
vii. If swimming, surfing or in a boat leave the water immediately and seek
viii. shelter.
ix. In the event of a surf carnival or special event, all effort should be made to
x. ensure the safety of all personnel. All effort should be made by the
xi. carnival referee and/or organisers to delay the event until the danger has
xii. passed or cancel/postpone events completely.
xiii. Avoid the use of portable radios and mobile telephones during a thunderstorm. If emergency calls are required keep them brief.

C.2 Indoor Protection

i. Avoid the use of telephones, radios, fax machines, computers and other electrical equipment. If emergency calls are required keep them brief.
ii. Before the storm arrives disconnect external aerials and power leads to radios and other appliances.

D. FIRST AID

The normal emergency care procedures apply to any patients effected by lightning strikes. Ensure that the rescuer is in no danger of being struck by lightning. If the patient is not breathing commence resuscitation immediately.

E. SUMMARY

In the event of a thunder storm and the possibility of lightning strikes within the vicinity of any SLSSA activity consideration should be given to the relocation, postponement or cancellation of the activity. This is to enable all personnel to seek appropriate cover and avoid the possibility of a personal lighting strike.

Examples:

- A thunder storm hits during a March Past training session producing lightning strikes in the immediate vicinity causing the March Past Captain to cancel training and retreat the team to the Clubhouse for shelter.
- A similar lightning storm hits during a Bronze exam whilst on the beach to do the run-swim-run component causing the Examiner to move the squad into the Clubhouse to carry out other components of the exam. After the storm has passed the examiner moves the squad back onto the beach to complete the exam.

5. FOG

5.1 Background & Guidelines

In the event of a fog, or similar natural occurrence where visibility is significantly reduced during the conduct of an SLSSA activity (in this case predominantly water based activities) consideration should be given to the postponement or cancellation of the activity until suitable visibility is restored. This is to ensure safety to all personnel who are required to be seen or observed in case they require assistance or may be injured as a result of reduced visibility.

Examples:

- Visibility is temporarily compromised between water based event participants, water cover personnel and officials including course markers (buoys) at a Carnival which causes the Chief Referee, in consultation with his Water Area Referees, to postpone these events until the fog lifts and adequate visibility is restored.
- A thick morning fog has set in at an IRB racing Carnival which provides for limited visibility of swimmers and patient pick-ups which causes the Chief Referee to cancel this event.

6. RAIN

6.1 Background & Guidelines

In the event of a rain, where dirty or contaminated water from sewer run-off may affect the venue of any SLSSA activity, consideration should be given to the relocation, postponement, modification or cancellation of the activity.

Examples:

- Excessive sewer run-off into the immediate vicinity of the ocean associated with the regular Club swim causes the Race Steward/Swim Captain to shift the course away from the (possibly) contaminated water.
- Sewer run-off across a sprint track causes the Chief Referee in consultation with the Beach Referee to cancel the remaining sprint events.

7. WIND

7.1 Background & Guidelines

In the event of conditions where high velocity winds are experienced in the vicinity of any SLSSA activity, consideration should be given to the relocation, modification, postponement or cancellation of the activity. This is to enable all personnel to seek appropriate cover or take appropriate risk management action.

Examples:

- High velocity wind squalls causes sand, equipment and craft to be blown around on the beach which is expected to last for about 20 minutes at a carnival. Events are postponed by the Chief Referee during this time whilst equipment and craft are secured and cover sought by personnel.
- Gale-force winds are forecast to arrive at a Somerton beach in 30 minutes which causes the Patrol Captain to instruct patrol to notify beach users of this forecast, pack up the regular beach based patrol shelter and associated gear and retreat to a position of surveillance on the cliff-top.

8. WAVES, RIPS and CURRENTS

8.1 Background & Guidelines

In the event of extreme rough seas, large wave action or where dangerous rips or currents have formed in the area where any water based SLSSA activity is being conducted consideration should be given to the relocation, modification, postponement or cancellation of the activity.

Examples:

- Large wave action at a Middleton Boat Carnival and the related concerns (participant risk of injury, craft damage and providing adequate water cover) cause the Boat Referee to relocate the event to the sheltered bay of Pt Elliot.
- Moderately rough seas at the Junior State Titles at Southport causes the Modified Area Referee to postpone events in that area and in consultation with the Chief Referee decide to relocate the modified area North to within the protection of the Pt Noarlunga Reef and recommence events.
- Extremely rough seas at an SRC exam cause the examiner to postpone to a later date the examination of the water based components in consideration of the safety of the participants.
- A strong travelling rip moves into where the modified area has been set up at a Junior Carnival at Christies Beach causing the Modified Area Referee to postpone events until the rip has moved through the area.
- Large wave action at a Moana Carnival and the inexperienced capabilities of a U/18 Boat crew causes the sweep to withdraw his team from their event. In the Ski Arena a number of female and junior ski paddlers also withdraw their personal entries.

9. BEACH CONDITION

9.1 Background & Guidelines

In the event of the beach conditions being considered unsafe for the conduct of any SLSSA activity consideration should be given to the relocation, modification, postponement or cancellation of the activity.

Examples:

- A number of discarded hypodermic needles are located on Glenelg beach where Junior Nipper training is to be conducted causing postponement by the Junior Coordinator of this activity whilst a scan of the local beach environment is undertaken.
- An official Beach Audit conducted by SLSSA considers it to be unsafe for SLSSA Carnivals to be held at Waitpinga beach. In this case this beach is simply not used for official SLSSA Carnival.
- A check of beach conditions prior to a Carnival being held at Brighton uncovers rocks and coarse shell-grit throughout the sand at that beach which the Chief Referee in consultation with the Beach Area decides is unsafe for SLSSA beach activities to occur and cancels these events.
- It is low tide at Chiton Rocks when the Boat Area is due to start its events and a few rocks are exposed which the Boat Referee decides is unsafe and postpones start time for 1 hour.

10. MARINE LIFE

10.1 Background & Guidelines

Sharks, jelly-fish, and other marine hazards provide further environmental risks which need to be taken into consideration.

In the event of risks being identified in association with any SLSSA activity consideration should be given to the relocation, modification, postponement or cancellation of the activity.

Examples:

- A recent shark attack on a metropolitan coastline causes the Director of Lifesaving to cancel all SLSSA water based activities over the following weekend along with implementing other modifications to patrol activities to increase public safety and confidence.
- Sharks are spotted in the close vicinity of a Junior Carnival at Aldinga Bay causing the Chief Referee to cancel the water based events.
- It is noticed that hundreds of Blue-bottle jellyfish are being blown on-shore during water-based training for a Bronze Exam at West Beach causing the Instructor to cancel water based training, notify other relevant beach users or personnel and continue land based training.

11. NON-ENVIRONMENTAL EXTERNAL HAZARDS/PUBLIC SAFETY ISSUES

11.1 Background & Guidelines

There are also further non-environmental external hazards or public safety issues which may also need to be taken into consideration when determining the risks associated with the conduct of SLSSA activities such as publicly operated motor boats, jet skis, wind surfers, kite-surfers or yachts, surfers, fisherman and swimmers not associated with the activity.

In the event of risks or hazards being identified in association with any SLSSA activity consideration should be given to the relocation, modification, postponement or cancellation of the activity.

Examples:

- IRB Driver and Crewperson Award examination is to be conducted at Goolwa Beach. On arrival the perfect wave day has caused the beach to be heavily populated with surfers and public swimmers causing the examiner to relocate the exam 1 km up the beach where there are minimal public.
- A long swim is planned by the Henley and Grange Clubs between the two jetties. The jetties are heavily populated with fishermen causing the event organiser to set the start and finish points and turning buoys an appropriate distance away from the jetties.

"IT IS COMMON SENSE REALLY, BUT YOU NEED THE SENSE TO ACT RESPONSIBLY FOR YOUR OWN SAFETY AND FOR THE SAFETY OF OTHERS"

REFERENCES AND RESOURCES

- SLSA Manuals: 32ND Edition SLS Training Manual, First Aid, Competition
- SLSA/SLSSA/Club policies, by-laws documents, circulars and bulletins
- Websites: SLSA, SLSSA, SMA SA, BOM,
- SMA SA Brochures: Hot Weather Guidelines (Attachment 1 – modified), Drink Up (Attachment 2), Fuel Up, Gear Up, Drug Use,

South Australian Branch Drink Up

DEHYDRATION & HEAT STRESS = POOR PERFORMANCE

Avoid heat stress and poor performance by adequate fluid replacement during your sport or activity.

- Exercise in hot or humid weather will result in additional fluid loss and increase the risk of dehydration
- Dehydration contributes to fatigue and may make you more susceptible to cramps, heat stress and heat stroke.
- Even small degrees of dehydration can cause a decrease in exercise performance
    - Physical and mental performance deteriorates at even 2% of body weight loss (e.g. 1.5 kg for a 75 kg person)
    - If you lose 5% of your body weight (e.g. 3.5kg for a 70kg person) then serious heat injury can occur.
- Children are at much greater risk of heat stress

HOW MUCH FLUID DO I NEED?

- You can assess your fluid requirements by weighing yourself before and after exercise or sport
    - **1kg lost = 1 litre of fluid deficit**
    - **2kg lost = 2 litres of fluid deficit etc.**
- Aim to keep these fluid losses to a minimum by drinking before, regularly during and then after exercise
- Sweating and fluid losses continue after exercise. After exercise aim to replace at least 1.5 times the amount of fluid deficit, measured at the end of exercise.

"DRINK UP" USING THE FOLLOWING MEASURES

- Drink plenty of fluids!
- Do not wait until you feel thirsty before you drink! Thirst is a poor indicator of fluid needs
- Although water replaces fluids, sports drinks (containing 4-8% carbohydrate and small amounts of electrolytes) provide:
    - additional energy from carbohydrate which can delay fatigue and enhance performance, especially during prolonged events
    - salts (electrolytes) which aid the rehydration process
- Even if you do not need the extra fuel, flavoured drinks such as sports drinks encourage fluid consumption more than plain water, and therefore lead to improved fluid balance
- Sweat is mainly water and very little salt. Some people, however, may require additional electrolytes in their fluids to improve hydration, but should only do so under medical supervision.

DRINK UP ROUTINE

- Avoid starting exercise dehydrated. Drink plenty of fluids for several hours prior to exercise.
- If you are well hydrated you should be able to pass a good volume of clear urine in the hour before exercise
- **Drink at least 500ml (2-3 glasses) 1/2 to 1 hour prior to exercise**
- **Drink at least 200ml (1 glass) every 10-15 minutes during exercise**
- **During exercise take advantage of all breaks in play to drink up**
- **After exercise drink 11/2 times your fluid deficit to ensure you are fully rehydrated.**

Dehydration, heat and sun injury can be prevented
and should be part of a players pre-activity plan, so...

BEAT THE HEAT

Take extreme care if exercising in hot weather

EMERGENCY PLAN

- **Lie the victim down**
- **Loosen and remove excessive clothing**
- **Cool by fanning**
- **Give cool water to drink if conscious**
- **Apply wrapped ice packs to groins and armpits**
- **SEEK MEDICAL ASSISTANCE**

BEAT THE HEAT

FOR WHOM

- Players, umpires, coaches, officials, teachers, spectators, sports trainers

WHAT TO WEAR

- Wear light clothing - light in colour and weight
- Wear a hat 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

SYMPTOMS OF HEAT INJURY OR HEAT STROKE

It is important you are aware of and react quickly to the following symptoms of heat injury:
• Fatigue • Nausea • Headache • Confusion • Lightheadedness
You should stop activity, drink more fluids and cool down. If the symptoms do not improve rapidly, you should seek medical advice.

For guidelines on cancelling and modifying events, due to hot weather, refer to Hot Weather Guidelines and Wet Bulb Globe Temperature information available from www.smasa.asn.au

DISCLAIMER

The information in this brochure is of a general nature. Individual circumstances may require modification of general advice from an appropriate health professional eg Doctor or Dietitian.