

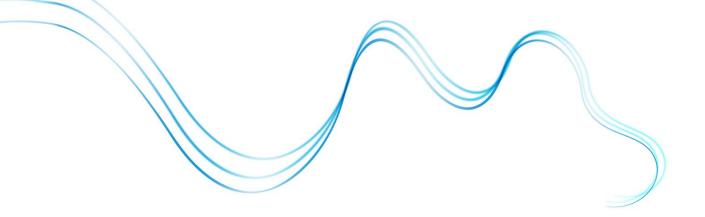
# **SPORTS** FIRST AID GUIDE





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Millions of Australians participate in sport each year, during 2019-2020 9 out of 10 Australians aged 15 or over participated in sport or physical recreation at least once.

Playing sport and engaging in physical activities is a great way to stay active and healthy, but injuries can and do often occur. From minor cuts and bruises to more serious injuries like sprains and fractures, it's important to be prepared for potential injuries or conditions that can unexpectedly occur while playing sport.

Serious conditions such as Sudden Cardiac Arrest can strike anyone, anywhere even on a sporting field. Being prepared for the worst is the only way to expect a positive outcome from such events. Quick and effective first aid can make a significant difference in the outcome of an injury, so having the knowledge and skills to provide appropriate first aid is essential for the faster recovery and better performance of athletes and players.

This guide is designed to provide you with an overview of common injuries that can occur during sports and the appropriate first aid products and techniques to use for each. In addition, we will cover tips for preventing injuries, how to respond to emergency situations, what to include in a sports first aid kit, and the importance of first aid training.

By following the advice in this guide, you will be better equipped to respond to sports injuries and help keep yourself, your teammates, and others stay safe while participating in sports activities.



# PREVENTION

While knowing how to respond to injuries is essential, it's equally important to take steps to prevent injuries from occurring in the first place.

By following some simple guidelines, you can help reduce the risk of injury while participating in sports activities.



Warm-up and cool down properly: Before starting any physical activity, it's important to prepare your body with a proper warm-up. This can include light aerobic exercises, dynamic stretching, and practicing specific movements relevant to the activity you'll be doing. Similarly, a proper cool down is essential to allow your body to return to its resting state gradually. It can help prevent muscle soreness, cramps, and other issues that can occur after physical activity. A good cool down routine include static stretches, a lowrisk walk or lower intensity set.



Use proper equipment: Using the right equipment for your activity is essential for preventing injuries. This can include footwear, clothing, helmets, and protective gear like shin guards or mouthguards. Always wear sunscreen or sun protective clothing if playing sport outdoors. Ensure your safety equipment is in good condition and fits correctly to provide optimal protection.

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Follow the rules: Sports have rules for a reason, and following them is crucial for preventing injuries. Make sure you understand the rules of your sport and adhere to them to minimize the risk of accidents or collisions with other players.



Hydrate properly: Dehydration can lead to cramps, fatigue, and other health issues that can increase the risk of injury. It's essential to drink plenty of fluids before, during, and after physical activity to maintain proper hydration levels.



Rest and recover: Chronic injuries can occur when you don't give your body enough time to recover between physical activities. Make sure to take rest days, get enough sleep, and eat a balanced diet to promote optimal physical health and prevent overuse injuries.

By following these simple steps, you can help reduce the risk of injuries while participating in sports activities.

# MOSTCOMMON SPORTS INJURIES



Sports injuries are commonly caused by overuse, direct impact, or the application of force that is greater than the body is designed to withstand. Sports injuries are typically categorised as either acute or chronic. Acute injuries occur suddenly and are the result of a specific event or trauma, such as a fall or sudden twisting motion. 32% of sports injuries in Australia are caused by a fall. Examples of acute injuries include:

- Sprains
- Strains
- Fractures
- Dislocations
  - Cuts or Lacerations
- Concussion
- Burns

If you are not in physical shape to play, haven't warmed up properly or are using improper equipment, acute injuries could occur. Immediate pain, swelling, and restricted movement in the affected area are frequent symptoms of acute injuries.

Chronic injuries are caused from repeated overuse of muscle groups or joints often made worse through bad technique. Unlike acute injuries that occur suddenly, chronic injuries tend to occur gradually and may not be immediately noticeable. Examples of chronic injuries include:

- Tendon Injuries
- Runner's Knee
- Stress Fractures
- Tennis Elbow

Chronic injury pain can become debilitating, impacting your everyday life beyond the playing field. Whether acute or chronic, these injuries should be treated immediately.

# TREATING SPORTS INJURIES

# IN CASE OF COLLAPSE

# **Treating Sports Injuries**

Treatment for sports injuries depends on the type of injury, its severity and where it is located. For severe injuries or conditions, it is always recommended to call an ambulance and follow an action plan. Aero Healthcare suggests that all sporting clubs should have an action plan in place for treating major injuries. We recommend following

**D R S A B C D** 



**D** is for Danger - Check and assess the surrounding area for Danger. Ensuring your safety and the safety of the victim, is the first priority.



**R** is for Response - Check for a response through verbal and physical touch. Ask the victim their name and gently squeeze their shoulders. If they respond, check, and treat them for any lifethreatening injuries. If the victim doesn't respond send for help immediately.



**S** is for Send - it is crucial to dial '000' and alert emergency services of the situation. If you can't send for help, ask another person to call '000' but don't leave the patient.



A is for Airways - If the victim isn't responding you must check their airways for any blockages. To clear the airway the mouth should be opened and the head turned slightly downwards to allow any obvious foreign material to drain.



**B** is for Breathing – Check the victims breathing patterns, look for chest movement, listen for air escaping their mouth and nose and feel for movement of air form their mouth and nose. If the person is breathing, place them in the recovery position and monitor their breathing.



**C** is for CPR – CPR should be used if the person is unresponsive and not breathing normally. It is most successful when administered as quickly as possible. CPR is the technique of chest compressions combined with rescue breathing.



**D** is for Defibrillation - If an AED or Automated External Defibrillator, is available retrieve it and continue CPR. Remove the AED from its carry case, switch it on and follow the voice prompts and instructions.



# For Minor Injuries Injuries

Aero Healthcare recommends using the RICE method that can be treated at home,





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Apply either an Instant Ice Pack or Reusable Hot & Cold Pack on the affected area. This will reduce the inflammatory response and improve the healing process. It is recommended to apply ice 3-4 times a day for the first 48-72 hours.



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Apply Heavyweight Conforming Bandage, covering the injured area, above and below to reduce swelling.

E ELEVATION

If possible, raise the injured area above the level of the heart to decrease swelling and pain.

### Bone and Joint Injuries

In Australia 52% of sport injuries are fractures, with so many bone related injuries occurring it's essential to respond appropriately to these types of injuries to prevent further damage and promote healing. In this section, we will discuss some of the most common bone and joint injuries and the appropriate first aid techniques for each.



#### Fractures

Fractures, or broken bones, can occur when the bone is subjected to a significant force or trauma. Common causes of fractures in sports include falls, collisions, and direct blows. Symptoms of a fracture may include severe pain, swelling, bruising, and deformity of the affected area.

First aid for fractures involves immobilizing the affected limb to prevent further damage and reduce pain. If you suspect a fracture, follow these steps:

- 1. Call for emergency medical assistance immediately
- 2. Keep the affected limb still and supported
- 3. If possible, gently straighten the limb to prevent it from moving
- 4. Apply an to the affected area to immobilize it
- 5. Apply an Instant Ice Pack to the affected area to reduce swelling and pain



#### Dislocations

Dislocations occur when the bones in a joint are forced out of position. This can be caused by a sudden impact or a fall. Common joints that are prone to dislocations in sports include the shoulder, elbow, finger, and knee. Symptoms of a dislocation may include pain, swelling, deformity, and the inability to move the affected joint.

First aid for dislocations involves immobilizing the affected joint and seeking medical assistance. If you suspect a dislocation, follow these steps:

- 1. Call for emergency medical assistance immediately
- 2. Do not attempt to relocate the joint yourself
- 3. Keep the affected limb still and supported
- 4. Apply ice to the affected area to reduce swelling and pain
- 5. If possible, immobilize the affected joint with a splint sling

# Sprains

A sprain is a stretching or tearing of the ligaments that connect bones to each other in a joint. This can be caused by sudden twists, falls, or impacts. Common areas that are prone to sprains in sports include the ankle, wrist, and knee. Symptoms of a sprain may include pain, swelling, and limited mobility. Sprains should be treated at home following the **RICE** method (see page 12). For severe sprains call for medical assistance.



A strain is a stretching or tearing of the muscle or tendon. This can be caused by sudden twists, overuse, or improper use of the muscle. Common areas that are prone to strains in sports include the back, hamstring, and calf. Symptoms of a strain may include pain, swelling, and limited mobility. First aid for strains involves following the **RICE** method: **Rest, Ice, Compression, and Elevation**.



Shin splints are a common chronic injury that can occur in athletes who engage in high-impact activities such as running, basketball, and tennis. Shin splints are characterized by pain and tenderness along the inside or front of the shin bone. To treat shin splints the **RICE** method should be used.





### Head and Neck Injuries



A blow to the head or neck can result in a concussion, skull fracture, or spinal cord injury. These injuries can be life threatening. It's essential to know how to respond if someone sustains a head or neck injury during a sporting activity.

#### 1. Concussions

A concussion is a type of traumatic brain injury caused by a blow to the head or body that shakes the brain inside the skull. Symptoms of a concussion can include confusion, dizziness, nausea, and memory loss. If you suspect someone has sustained a concussion follow DRSABCD (see page 11) and lay the casualty down, with head slightly raised.

The initial treatment for a concussion is rest. The person should avoid any activity that could cause further injury or put them at risk of a second concussion. In more severe cases, the person may need to be hospitalized for observation.

#### 2. Skull Fractures

A skull fracture is a break in one or more of the bones of the skull. Symptoms of a skull fracture can include swelling, bruising, and tenderness around the injury site, as well as dizziness, nausea, and vision changes. If you suspect someone has sustained a skull fracture, it's important to seek medical attention immediately.

Follow DRSABCD and do not move the patient unless necessary, ensuring the patient remains stabilised, and controlling any bleeding. The person may need to be hospitalized for observation and treatment.

#### 3. Spinal Cord Injuries

A spinal cord injury occurs when there is damage to the spinal cord, which can result in temporary or permanent changes in sensation, strength, and other bodily functions. Symptoms of a spinal cord injury can include loss of sensation or movement, difficulty breathing, and intense pain or pressure in the neck, back, or head.

If you suspect someone has sustained a spinal cord injury, it's important not to move them unless it's absolutely necessary to prevent further injury. Instead, follow DRSABCD and call for emergency medical services immediately. The person should be immobilized and transported to the hospital for further evaluation and treatment. AeroRescue Stretchers are ideal for patient immobilisation and transport.



### **Skin Injuries**

While skin injuries may seem less severe than some of the other sports injuries listed above, they can still be painful and require proper first aid treatment. In this section, we'll cover some common skin injuries and how to treat them.

#### 1. Abrasions

Abrasions, also referred to as a scrape or graze, are one of the most common types of skin injuries in sports. They occur when the skin is rubbed or scraped against a hard surface, causing the outer layer, the epidermis to be broken. While most abrasions are minor and can be treated at home, larger or deeper abrasions may require medical attention.

#### Treatment:

To treat an abrasion, start by gently cleaning the affected area with a sterile gauze such as the AeroSwab to remove any dirt or debris. Apply an antiseptic cream or spray from the AeroAid range to help prevent infection and encourage faster healing. Then cover the abrasion with a sterile bandage or adhesive dressing from the Aero range.

#### 2. Blisters

Blisters are a small pocket of fluid in the upper skin layers caused by the body's response to friction between the skin and a hard surface, such as a shoe. They can be particularly common in sports that involve running or other high-impact activities. While blisters can be painful, they are usually non-life threatening and can be treated at home.

#### Treatment:

To treat a blister, resist the temptation to burst it, doing so could open up the area for infection. If the blister has burst, gently clean the area with soap and apply an antiseptic cream from the AeroAid range. Cover the blister with a sterile bandage or dressing to help prevent infection.

#### 3. Sunburn

Sunburn is the skins' reaction from too much exposure to ultraviolet (UV) radiation of the sun. UV is invisible to the human eye but can have deadly consequences. Even on cloudy days, UV can damage the skin. Mild sunburn can be treated at home, but severe and blistering sunburn can be very painful and require medical attention.



To prevent sunburn a simple 5 step approach can be used.

- Slip on sun-protective clothing (make sure it covers as much skin as possible).
- Slop on SPF (sun protection factor) 30 or higher broadspectrum, water-resistant sunscreen. Apply 20 minutes before going outdoors and reapply every 2 hours.
- Slap on a wide-brimmed hat that protects your face, head, neck and ears.
- Seek shade.
- Slide on wrap-around sunglasses (make sure they meet Australian Standard AS/NZS 1067).

#### **Treatment:**

To treat sunburn, start by cooling the affected area with a cool bath or shower, or by applying a cool, damp towel. Follow by applying a soothing cream or spray such as AeroBurn. AeroBurn uses the natural soothing properties of Aloe Vera and Tea Tree oil for fast acting relief. AeroBurn will help relieve pain and inflammation to promote faster healing. and avoid further sun exposure until the burn has healed.



#### 4. Cuts and Lacerations

Cuts and lacerations can occur during sports activities, particularly those that involve sharp objects such as blades or glass. While most cuts are minor and can be treated at home, deep or large cuts may require medical attention. Depending on the size of the cut and its location there is a risk of damage to tendons and nerves.

#### Treatment:

To treat a cut or laceration, start by applying pressure to the wound to help stop bleeding. Clean the wound with soap and water, then apply an AeroAid antiseptic cream or spray to avoid infection. Cover the cut with a sterile bandage or dressing from the Aero range. Regularly change the bandage or dressing over the wound, if it is infected or not healing seek medical attention. Also seek medical attention if the cut is deep, large, or does not stop bleeding. For major haemorrhaging a tourniquet should be used to stop the bleeding.

# Muscle Injuries

For providing support and pain relief for a range of injuries affecting muscles, tendons, and ligaments we recommend applying Kinesiology Sports Tape. By applying the tape to the affected area, the kinesiology tape can help support the injured tissue while still allowing for a range of motion. See the most common way of applying kinesiology tape.

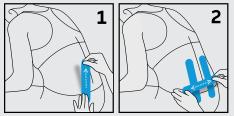


#### Shoulder



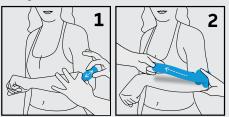
- Start with hand resting on hip on a relaxed position. Cut a piece of tape and split it down the middle, leaving approximately 10cm for an anchor point. Anchor the tape to the tip of the deltoid muscles. Carefully trace each part of the tape around the front and back of the shoulder.
- Using another piece of tape, start at the front of the shoulder and apply over the tape to the back of the shoulder with moderate stretch.

#### Lower Back Lumbar Spine



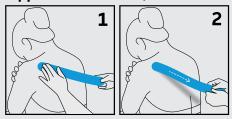
- 1. Person receiving tape should be in a seated position with their arms supported and their torso leaning forward over the knees. Anchor tape at the top of the glute and run tape vertically along the side of the spine with moderate stretch. Repeat the same steps on the other side.
- 2. Holding the current position, apply a horizontal strip running anchoring at the middle of the spine and coming around to both sides of the waists. This should be with no stretch.

#### Elbow



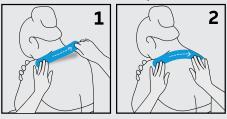
- Start with the arm in a pronated position in front of you. Cut two small pieces of tape and rounds the edges. Apply over the outside bony prominence on the elbow with 50% stretch and then lay edges down with no stretch. Repeat this the opposite direction, making an "X" with one tape horizontal, one vertical over the point of pain.
- 2. Using another piece of tape, have the individual bend at their wrist and starting at the same position as the previous horizontal tape, run halfway down the forearm with 25% stretch, ensuring no stretch at the end.

#### Upper Back Thoracic Spine



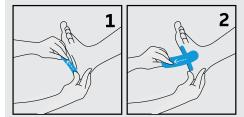
- Person receiving tape should be in a seated position with their arms across their chest, shoulders and upper back rounded. Anchor the first strip of tape slightly below left shoulder with no stretch.
- 2. Gently pull tape approximately 50% and apply downwards towards the right waist. Make sure the ending piece of the tape does not have any stretch. Maintaining the current position, repeat on the opposite side, starting below the right shoulder and ending at the left waist.

#### Base of Neck Cervical Spine



- 1. Person receiving tape should be seated with their arms across their chest, shoulders and upper back rounded and nexk tucked into chest. Using the bony prominence as an anchor, apply tape with moderate stretch across area along the shoulders.
- 2. Lay the end pieces down with no stretch. Make sure all tape has been applied thoroughly to ensure proper adhesion.

#### Foot Plantar Fasciitis



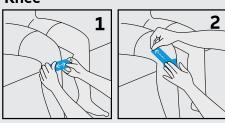
- 1. Start with person seated and toes pointed up as far as possible towards them. Anchor small piece of tape to heel and run to the ball of the foot with 25% stretch.
- 2. Using another piece of tape, anchor on the outer edge of the foot near the ball and run around to the other side to provide additional arch support with 25% stretch.

### Hamstring



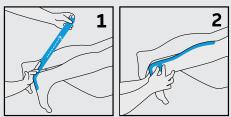
- 1. Start with the person leaning forward over a bench and leg as straight as possible. Anchor the tape to the bony prominence at the base of the glutes and run tape along other edge of the leg with 50% stretch.
- 2. Repeat steps along the inside edge of the leg.

#### Knee



- 1. Start the individual in a seated position. Anchor a small piece of tape along the base of the knee, below the knee cap with zero stretch.
- 2. Using another piece of tape, anchor at the middle of the previous piece and with 25% stretch, pull upwards around the knee to 1/4 up the thigh before laying down with no stretch. Repeat on other side.

#### Calves Achilles



- Start the individual lying faced down with foot off the edge and toes drawn up as far as possible. Anchor tape at the middle part of the foot with 25% stretch, run tape over the Achilles tendon to finish at the top of the calf.
- 2. Using another piece of tape, run along the Achilles with no stretch.

# 5 SUDDEN CARDIAC ARREST

# SUDDEN CARDIAC ARREST

# **CHAIN OF SURVIVAL**



The chain of survival is an internationally recognised process. If each link in the chain is completed to a high standard, the patient has the greater chance of survival. We support AEDs which contribute to a strong chain of survival.

Sudden Cardiac Arrest (SCA) is commonly referred to as the Silent Killer. Each year in Australia as many as 20,000 out of hospital cardiac arrests occur. Less than 10% of these sufferers survive. SCA continues to be a major public health challenge and is estimated to cost the Australian economy \$2 billion each year.

### SCA is a medical emergency that if not treated immediately, will result in death within a few minutes.

Sudden Cardiac Arrest can impact anyone, anywhere, at any time! It often occurs without warning. When someone suffers cardiac arrest, they will lose consciousness and collapse. Sudden Cardiac Arrest occurs when the hearts rhythm becomes chaotic. It usually results from a disturbance in the heart that disrupts its pumping action, stopping the blood flow to the brain and the rest of the body. The most common cause of cardiac arrest is ventricular fibrillation, an arrhythmia where rapid, erratic electrical pulses in the heart cause the ventricles to quiver rather than pump blood. While sudden cardiac arrest can occur to anyone, anywhere, men are two to three times more likely to suffer from Sudden Cardiac Arrest than women.

Immediate action is required to treat sufferers of Sudden Cardiac Arrest. The first 3–5 minutes are key to survival. The chain of survival is an internationally recognised process. If each link in the chain is completed to a high standard, the patient has the greatest chance of survival. The first step in the chain of survival is Early Access. Identify the situation as a sudden cardiac arrest by checking the victims breathing and consciousness. Once a Sudden Cardiac Arrest has been identified, an ambulance must be called immediately to ensure defibrillation and life support arrive as soon as possible.

The second step is Early CPR. If Cardiopulmonary Resuscitation (CPR) begins within 4 minutes, then vital organ function including the brain can be maintained. The sooner CPR is conducted the greater the chance of survival. Any attempt at resuscitation is better than no attempt. CPR should be performed at a rate of 100/120 chest compressions per minute, almost 2 compressions per second. CPR should be continued until trained emergency service professionals, or an AED arrives.

The final step in the chain of survival is Early Defibrillation. If early defibrillation is applied there is a significant increase in the chance of survival. A defibrillator such as the HeartSine samaritan 500P will administer a controlled electric shock, to allow restoration of the normal heart rhythm.



# SPORTS FIRST AID KITS

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TGA AUST L 142658 Australian Manufact With so many Australians participating in sport each year, it's important that all sporting teams and clubs are equipped with a suitable Sports First Aid Kit.

With so many Australians participating in sport each year, and the subsequent number of injuries that occur, it's important that all sporting teams and clubs are equipped with a suitable Sports First Aid Kit. A Sports First Aid kit will have the necessary items to treat the common injuries, like those listed above. The essential items that should be included in every sport first aid kit are:

- Adhesive bandages in various sizes and shapes
- Sterile gauze pads
- Adhesive tape
- Elastic bandages
- Alcohol wipes or antiseptic solution
- Disposable gloves
- Instant cold packs
- Scissors
- Tweezers
- First aid Guide
- Rigid Sports Tape

Its important that contents of the first aid kit reflects the risks involved with each sport. Higher risk sports should consider having a more extensive kit to cater to varied and more serious injuries. For example, a soccer team may want to include supplies for treating ankle sprains, while a basketball team may want to include supplies for treating finger injuries.

It is important to consider the types of injuries that are most common in your sport and ensure that your first aid kit is tailored to those needs. In addition, you should consider the age and skill level of your athletes, as well as any pre-existing medical conditions or injuries.

The AeroKit Sports First Aid Kit includes the essential items you need to treat minor injuries on and off the field. Kits containing AED should considered for all kits and especially for teams with older players or for when chest blows.





# How can Aero Healthcare help?

- We're passionate about
  - becoming the global
    - leader in the first aid •
    - and consumer wound
      - care sector. •

We design and manufacture superior products that increase patient care. But what makes us different from other first aid suppliers?

- We manufacture our own proprietary branded products
- We have control over R&D and the supply chain allowing us to expand our sourcing.
- We introduce new compliant products quickly into local markets
- Product selection is based on extensive R&D and market research
- We listen to our customers, evaluate their needs, and use it to inform product decisions
- We package products in the most user friendly and sustainable way
- We sell exclusively through our distribution partners

# GET IN TOUCH WITH AERO HEALTHCARE TODAY

Ensure your club has the supplies it needs in case one of your players or teammates are injured while playing the sport they love! Aero Healthcare have a range of suitable products available for a sporting first aid emergency.

For more information about our range of first aid supplies and how you could benefit, simply get in touch with a member of our team who will connect you with your nearest distributor.

#### Contact Us on 1800 628 881

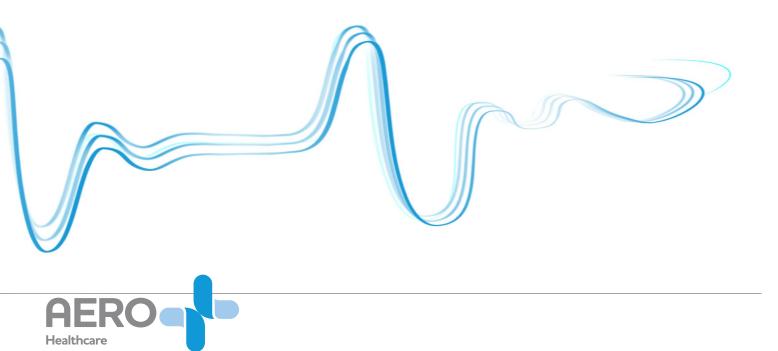
or visit www.aerohealthcare.com/contact and send

#### us a message

**References** 1. Clearinghouse for Sport 2020. AusPlay. Canberra: Sport Australia. Viewed 1 Feb 2023. 2. Australian Institute of Health and Welfare Australian Sports Injury Hospitalisations (2020) 3. Paratz ED, Smith K, Ball J, et al. The economic impact of sudden cardiac arrest. Resuscitation. 2021 Jun;163:49-56. 4. Olasveengen TM, Mancini ME, Perkins GD, et al. Adult Basic Life Support: 2020 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science With Treatment Recommendations. Circulation 2020; 142(16\_suppl\_1): S41-S91.

Disclaimer: For further information on safe work practices and first aid regulations in the workplace, please review the Safe Work Australia Guidelines. The information provided is sourced from Safe Work Australia. Everything in this document is to be used as a guide only. All information in this guide is provided in good faith, we under no circumstance shall have any liability to you for any damage or loss incurred as a result of the use of this document. For legal advice regarding safe practices for your sporting club it is best to consult with Safe Work Australia and other government bodies.

NOTES
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