MONASH University

Medicine, Nursing and Health Sciences

Soft Tissue Injury & Skin Trauma

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Treatment of sporting injuries

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How many injuries?

Approximately one-fifth of hospital emergency department presentations resulting from lawn bowls injury require hospitalisation.
Each year about 40 people are admitted to hospitals while 10 people visited emergency departments for lawn bowls related injuries (in the state of Victoria alone).
During this period, the hospitalisation rate was highest among those aged between 70 and 74 years.

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Lawn Bowls Injuries

Common causes of injuries are falls, overexertion, repetitive bowling movements and being struck by a bowl.
Fall injuries usually occur when a player either falls backwards over a bowl; steps forward over the ditch, rather than sideways when crossing onto the green; or delivers a bowl with incorrect balance.

The most common types of injuries are fractures, sprains and strains.

Injuries to the hip, thigh, knee and lower leg are most common.

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If an injury occurs

Stop playing if you experience any injury or illness.

Injured players should seek prompt attention from qualified first aid personnel or a sports medicine professional.

Players should be fully rehabilitated before returning to play.

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Types of Sports Injuries

Minor

Blisters,cramps, abrasions,lacerations.
not very exciting, but important.

Soft Tissue

muscle, ligament, tendon, fascia

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Common Sport Injury

Injury	Symptoms & Signs	Possible Causes
Soft Tissue Injury (Bumps,sprains, strains)	Pain, swelling, reduced movement, tenderness	Uncontrolled movement, blow, collision, Overstretching
Broken Bones	Pain, swelling, local tenderness, deformity, loss of sensation, numbness	Blow, collision, heavy fall
Broken Nose	Bleeding, pain, swelling, deformity	Hit with ball/bat/player, fall, collision
Blisters	Local pocket of fluid, pain, tenderness	Friction from shoes, clothing, equipment, pressure

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Soft Tissue Injury Management

R.I.C.E.R.

- Rest
- Ice
- Compression
- Elevation
- Referral

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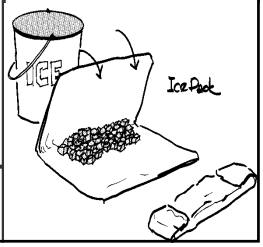
Management of Soft Tissue Injuries

Table from Sports Medicine Australia

		How?	Why?
R	Rest	Place the athlete in a comfortable position, preferably lying down. The injured part should be immobilised and supported.	Activity will promote bleeding by increasing blood flow
I	Ice	The conventional methods are: • Crushed ice in wet towel/plastic bag • Immersion in icy water • Commercial cold packs wrapped in wet towel • Cold water from a tap is better than nothing **Apply for 20 minutes every 2 hrs for the first 48 hrs.** **CAUTION:** • Do not apply ice directly to skin as ice burns can occur • Do not apply ice to people who are sensitive to cold or have circulatory problems • Children have a lower tolerance to ice	Ice reduces: • Swelling • Pain • Muscle spasm • Secondary damage to the injured area 

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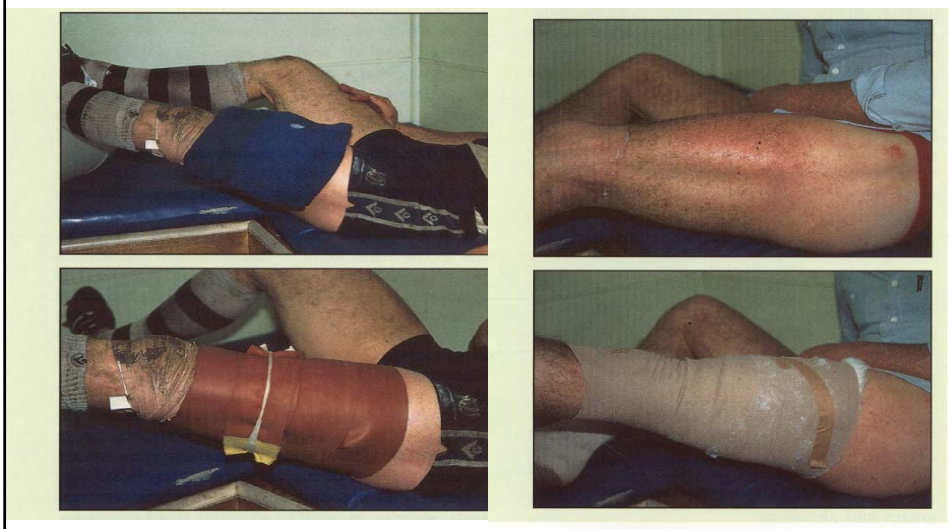

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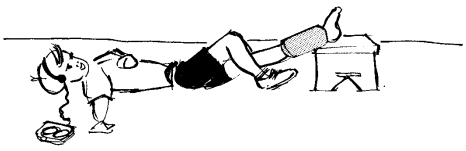
Management of Soft Tissue Injuries

Table from Sports Medicine Australia

		How?	Why?
C	Compression	Apply a firm wide compression bandage over a large area covering the injured part, as well as, above and below the injured part.	Compression: • Reduces bleeding and swelling • Provides support for the injured part
E	Elevation	Raise the injured area above the level of the heart at all possible times	Elevation: • Reduces bleeding and swelling • Reduces pain
R	Referral	Refer to a suitable qualified professional such as a Doctor or Physiotherapist for a definitive diagnosis and ongoing care.	



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Sports Injury Management

Treating injuries with HARM

Avoid the HARM-ful factors for 72 hours after the injury

Heat

Heat increases the bleeding at the injured site. Avoid hot baths and showers, saunas, hot water bottles, heat packs and liniments.

Alcohol

Alcohol increases bleeding and swelling at theinjury site, and delays healing. It can also mask the pain of the injury and its possible severity, which may result in the player not seeking treatment as early as they should.

Running

Running or any form of exercise will cause further damage. A player should not resume exercise within 72 hours of an injury unless a medical professional says it is alright to exercise.

Massage

Massage causes an increase in bleeding and swelling, and should be avoided within 72 hours of the injury. If the injury is massaged within the first 72 hours, it may take longer to heal.

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Antisepsis

Acute injuries will often be contaminated by the surroundings where the injury occurred eg. Dirt, gravel, grass, clothing or other foreign material. The risk of infection developing in these wounds is high due to the inflammatory nature of the wound as the tissue commences the healing process.

It is also appropriate to apply a topical antiseptic before dressing the wound. This is usually left in place for 2-3 minutes and then washed off with clean water.

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Hand Sanitisers

- The use of Alcoholic hand gels is superior to washing

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Why Dress A Wound ?

- Create an environment conducive to healing
- To promote comfort
- To protect the wound and surrounding tissue
- To reduce pain by excluding air from the nerve endings
- To maintain temperature in the wound

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Why Dress A Wound ?

- To control & prevent haemorrhage
- To control & prevent odour
- To contain drainage
- To apply compression for haemostasis or venous stasis
- To decrease stress for client/carer
- To prevent and manage infection (Carville 2001)

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WOUND CARE IN SPORT

The methods of treatment of the injury at the time will enable the competitor to return to the field as quickly as possible. After the game a more appropriate protocol should be used to quickly heal the injury and to reduce the risk of re-injury.

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Bleeding

In most cases direct pressure with a Gauze swab will stop bleeding. Unfortunate many of our bowlers take anticoagulants (blood thinners) and so bleeding is more difficult to stop. In these cases we use a haemostat dressing e.g. Kaltostat or Algisite M to stop the bleeding

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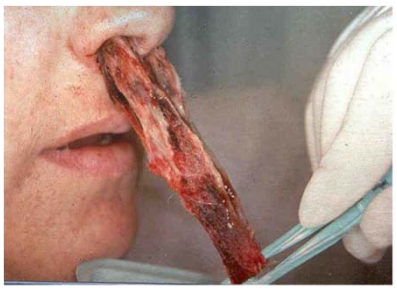
Alginates



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LACERATIONS(Cut) TREATMENT

- Wash to remove excess foreign material
- Stop bleeding by:
  - Direct pressure
  - Haemostatic Alginate dressing
- Apply simple dressing

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Graze

Scrub the graze with a good Surfactant wash to remove any contaminant
Apply a topical antiseptic
Apply either an Island film or a Foam dressing
Apply a cohesive bandage

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Skin Tears - Why do they occur?

Very Common in Older Ages

Skin integrity ↓ with age

- ↓ dermal thickness
- weakened dermal-epidermal junction
- ↓ vitamin D, collagen and moisture
- ↓ migration of capillary epithelial cells
- ↓ epidermal turnover
- ↑fragility of capillaries
- compromised inflammatory response
- concomitant illnesses and medications

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Skin Tears - Treatment

- **stop bleeding**
  - use alginate sheet (if needed)
- **gentle cleansing**
  - tap water/sterile saline
- **pat dry**
- **roll skin flap into place (where possible)** damp cotton bud
- apply Steri-Strips if skin flap still present max 1cm apart avoid applying tension apply a Hydrogel to the dry periskin
- **apply wound Silicone Foam dressing** (non-adhesive, thermally insulating, protective) If major skin loss apply Mepitel first mark direction of skin flap on dressing
- dressing retention
  - AVOID ADHESIVE TAPES
  - use cohesive bandage (eg, Handygauze Cohesive)

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Simple Non-waterproof Dressing

Simple waterproof Dressing

Elastic Steri Strips

Simple Waterproof Strips

Antiseptic Solution

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Foam Dressings

Haemostatic Dressing

Hydrogel Dressing

Cleaning Swabs

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Bandages

Elastic Tubular Compression Bandage

Light Cohesive Bandage for Dressing Retention

Elastic Compression Bandage

Elastic Cohesive Bandage

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Use of Skin Adhesives

- Generally should not be used on older/fragile skin
- If there is no choice - use only these tapes & remove with a skin gentle wipe

Hypafix

Fixamull

Mefix

Medipore

Adhesive Tapes Removal [Skin Friendly]

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RIGID STRAPPING TAPE

- Strong support for joints during high-stress sport activity
- For injury prevention and rehabilitation
- Hand-tearable
- Porous and flesh-coloured
- Available in 50mm, 38mm, 25mm and 12.5mm width, in 10 metre length

ELASTIC ADHESIVE BANDAGE

- Strong support for joints during high-stress sport activity
- For injury prevention and rehabilitation
- Helps provide support for controlled movement
- Porous and flesh-coloured
- Available in 75mm and 50mm width, 3 metre length

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WHICH TAPE TO USE

To restrict joint movement, use a rigid strapping tape

USE:	PRODUCT:
Preventative ankle taping	Rigid Strapping Tape 38mm or 50mm for large joints
Treatment such as injured ankle, elbow, fingers	Rigid Strapping Tape 25mm or 12.5mm
Treatment such as injured shoulder, knee, feet	Rigid Strapping Tape 50mm

To compress and support joints or muscles, use an elastic adhesive bandage

USE:	PRODUCT:
For strong compression when returning from injury, eg, sprained knee. To be used over rigid tape.	Elastic Adhesive Bandage 75mm
For initial compression, eg, acute ankle sprain	Elastic Adhesive Bandage 50mm

If you need greater flexibility use Elastoplast Sport Elastic Adhesive Bandage which offers extention.

Elastoplast Sport Rigid Strapping Tape comes in flesh colour to help disguise the injury during the game.

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Conclusion

Looking after your skin is very important as the skin plays a vital role in protecting the body.

Good hydration, moisturizers and protection from damage are simple ways to ensure good skin health

In these time of uncertainty listen to the science not Social media. Treating injuries when they occur don't Wait the longer you leave it the greater risk for long term damage.

Please do not Consult Dr Google

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