SPORTS INJURY
FACT SHEET

SOFT TISSUE INJURIES

What is a soft tissue injury?

Soft tissue injuries are the most common type of injury in sport. Soft tissue refers to tissues that connect, support or surround other structures and organs of the body.

Soft tissue includes muscles, tendons, ligaments, fascia, nerves, fibrous tissue, fat, blood vessels, cartilage, skin, fibrous connective tissue and synovial membranes.

Risk Factors

The most common soft tissue injuries involve one or more of the following structures due to sprain, strain or direct impact:

- Muscle – made up of fibres that shorten and lengthen to produce joint movement. Muscles attach to bones via tendons
- Tendon – tough, slightly elastic connective tissue connecting muscle to bone
- Ligament – strong, inelastic connective tissue connecting bone to bone

Risk factors include:

- Previous injury – Athletes should only return to activity once cleared by a sports medicine professional
- Overuse – Repeated use without adequate rest may lead to injury
- Fatigue – Tired muscles and tissues are more susceptible to injury
- Improper technique – Increases stress and imbalance in tissue usage and energy demands, leading to fatigue
- Inadequate warm-up – Tissues must be properly prepared for the demands of activity
- Inappropriate equipment – Poorly fitted gear, including footwear, can increase stress on soft tissue
- Environmental conditions – Playing surfaces and surroundings should be free of hazards
- Age – As we age, tissue flexibility decreases, increasing injury risk
- Weight – Excess body weight places additional strain on soft tissue structures

Signs and Symptoms

Soft tissue injuries are classified as either **acute** or **overuse** injuries.

1. Acute injuries

Occur from a known incident. Symptoms usually appear quickly.

Bruise (contusion or cork) - caused by direct impact, such as contact with a player or object, resulting in compression and internal bleeding.
Signs and symptoms: Swelling and/or discolouration

Sprain - occurs when a joint is forced beyond its normal range, overstretching or tearing ligaments.
Signs and symptoms: Swelling, pain, loss of function or weight-bearing ability, bruising and/or sudden onset of pain

Strain - occurs when a muscle is overstretched or contracts too quickly, partially or fully tearing muscle or tendon fibres.
Signs and symptoms: Pain with movement, swelling, possible bruising

2. Overuse injuries
Caused by repetitive stress such as friction, pulling, twisting or compression.
Signs and symptoms: Gradual onset of pain, inflammation, reduced function

Management

Follow the RICER protocol – Rest, Ice, Compression, Elevation and Referral – for 48–72 hours to reduce bleeding and damage within the injured tissue.

- Rest the injured area
- Apply ice for 20 minutes every two hours (never directly to the skin)
- Use a compression bandage
- Elevate the injured area
- Seek advice from a sports medicine professional

Also apply the No HARM protocol – No Heat, Alcohol, Running or Massage – to prevent worsening the injury.

Most soft tissue injuries heal within 1–6 weeks, depending on the individual's age, health and the injury's severity.

In more serious cases, a splint or plaster cast may be required. In some instances, surgery may be necessary—consult a medical professional for advice.

Ways to help prevent soft tissue injuries include:

- Warming up, stretching and cooling down
- Training prior to competition to ensure readiness to play
- Including appropriate speed work in training to prepare for high-acceleration demands
- Including regular stretching and strengthening exercises
- Gradually increasing the intensity and duration of activity
- Maintaining cardiovascular fitness and muscular endurance to reduce fatigue
- Allowing adequate recovery between training sessions
- Using well-fitted equipment and footwear that supports the activity and surface
- Wearing protective gear (e.g. shin guards, mouthguards, helmets)
- Ensuring the playing environment is safe and clear of hazards

Always consult a trained professional

The information above is general in nature and is only intended to provide a summary of the subject matter covered. It is not a substitute for medical advice, and you should always consult a trained professional practising in the area of sports medicine in relation to any injury. You use or rely on the information in this fact sheet at your own risk, and no party involved in the production of this resource accepts any responsibility for the information contained within it or your use of that information.

Need a sports medicine practitioner?

Visit SMA's *Find a Sports Doctor* **online directory** to connect with a qualified Sports Doctor near you.

Looking for more information?

Sports Medicine Australia (SMA) is the peak national body for sports medicine, sports science and injury prevention education, dedicated to keeping Australians active, healthy and safe.

The SMA website is packed with practical resources, fact sheets and tools to support you, your team and your community to perform at their best while reducing the risk of injury.

You can explore nationally recognised training courses, including Provide First Aid and Provide Cardiopulmonary Resuscitation (CPR), as well as our industry-leading sideline support courses such as Sports Trainer Level 1 and 2, Introduction to Sports Taping, Introduction to Sports Massage and more.

Everything you need is at **sma.org.au**.

Acknowledgements

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