

## A little about sprains and strains.....

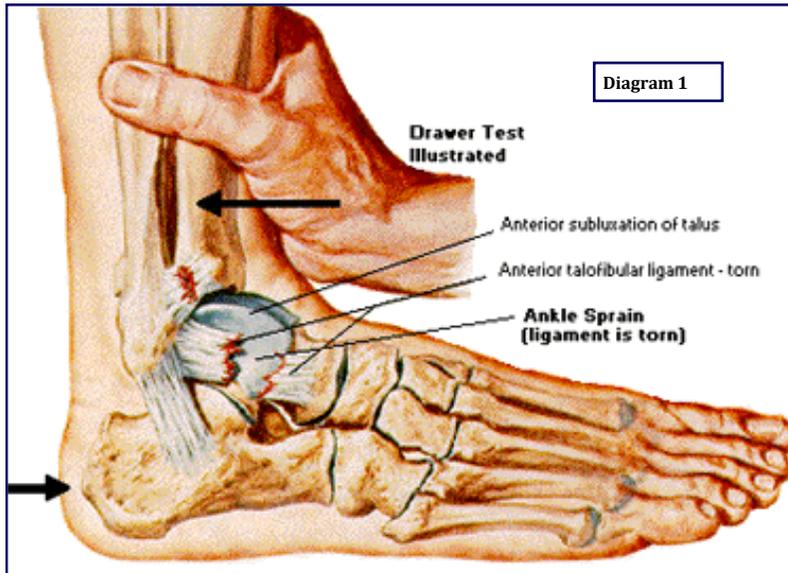
*Sprains and strains are two of the most common soft tissue injuries. Although these two terms are often used interchangeably, they actually form 2 very different conditions. A sprain is a joint injury that usually involves tearing of the ligaments and joint capsule. A strain is an injury to muscle or tendons. After an injury, you may present with pain, swelling and often bruising of the area concerned. More serious injuries may cause a loss of power or ability to bear weight on that particular joint. Soft tissue injuries require appropriate treatment/management in order for the area to heal in a timely manner. They can take between 2 and 12 weeks to heal, depending on the injury, your initial and ongoing management of the condition, and the age and general health of the patient. The information contained in this information leaflet will help you to manage these common injuries with the help of your LiveLife Pharmacy!*

## What is the difference between a Sprain and Strain?

In order to understand these soft tissue injuries, it is essential to have a basic understanding of our musculoskeletal anatomy and physiology.

- A **ligament** is a thick, tough, fibrous tissue that acts much like a shock absorber and connects bone to bone.
- A **tendon** acts more like an anchoring point for a band of muscles and attached muscle to bone.

***Sprains** are caused when the joint is forced beyond its normal range of motion resulting in overstretching and possible tearing of the ligament that supports the joint. Please see diagram 1 below:*



***Strains** are caused by muscles over-stretching or contracting too quickly; this then results in a partial/complete tear of the muscle and/or tendon fibres. Please see diagram 2 below:*



## First Aid for Sprains and Strains

*There are 2 main principles that should be followed for initial treatment of a soft tissue injury like a sprain/strain; that is, "RICE" and "Avoid HARM."  
Please read the full description below:*

In the first 48-72 hours following injury, it is important to follow the principles of RICE:

- **REST:** Rest and avoid activities that cause significant pain. You may need to use crutches or a sling.
- **ICE:** Icepacks (or a cold compress) wrapped in a wet cloth may be applied to the injury for 15 minutes, every 2 hours for 24 hours, then for 15 minutes every 4 hours for 24 hours.
- **COMPRESSION:** A firm but 'elastic bandage should be applied firmly to extend well beyond the injury. Please be sure that this does not restrict circulation or cause additional pain.
- **ELEVATION:** Raise the limb, using cushions or a sling to above the level of your heart, if possible.



In the first 48-72 hours, it is important to avoid HARM:

- **HEAT:** Avoid heat as it can increase blood flow and thus swelling.
- **ALCOHOL:** Alcohol may also increase blood flow and swelling, and can make you less aware of aggravating your injury.
- **REINJURY:** It is important to protect the affected joint until it has healed adequately.
- **MASSAGE:** This may promote blood flow and swelling and may also increase damage if begun too early.

Some common basic bandage wrapping techniques to remember:



*Wrapping an ankle injury*



*Wrapping a wrist injury*

## LiveLife Pharmacy Products for Optimal Care of your injury

- **Paracetamol**—this will aid in basic pain relief until you recover.



- **NSAIDS**—non-steroidal anti-inflammatory—these are anti-inflammatory tablets/gel/cream containing ibuprofen/aspirin/diclofenac and help to give pain relief and reduce swelling at the injury site.



- **Liniments and heat rubs**—remember these agents must be used at least 48-72 hours after the injury and must NEVER be used whilst there is still swelling/heat present.



- **Cold sprays/gels**—these work similar to an ice pack to “cool” down the injury.



- **Ice packs**—effective and essential immediately after injury occurs. Remember to wrap the ice pack with a damp cloth in order to avoid “burning” the skin.



- **Bandages**—to provide compression for the injured site.



- **Sports supports**—like those discussed on page 4 (Elastic, stabilising or neoprene).



- **Sports Taping**—another method for compression and a way to provide stability to a joint.



- **Tens machine**—these are helpful in rehabilitation of an injury, but should only be used under supervision by your pharmacist.



- **Self Care fact card**—so you don't forget any important information that you have been provided by the pharmacy!

- **Heat patches**—these are “single use” patches that stick to the skin and provide warmth to an inflamed muscle/joint. Remember—no heat until at least 48-72 hours after the injury!



- **Crutches**—your pharmacy may offer to either hire or sell crutches to a patient to aid their mobility whilst their injury is healing.



## Frequently Asked Questions

### **1. How can I prevent further injury in the future?**

- *Warming up, stretching and cooling down when exercising.*
- *Training before a competition to ensure readiness to play. The intensity and duration of this training should be gradually increased over time.*
- *Giving yourself adequate recovery time between any workouts or training sessions.*
- *Keeping well hydrated with water before, during and after play.*
- *Avoiding any activities that cause you pain.*
- *Ensuring appropriate, supportive footwear is worn at all times. This footwear should be well fitted and provide traction for the playing surface.*

### **2. How do I know whether to apply ice or heat to my injury?**

*Ice should always be first to be applied to a new sprain/strain for at least the first 24-48 hours. After 48-72 hours, liniments and heat rubs may be initiated, but not until the injury is no longer swollen and/or warm.*

### **3. When should you speak to your pharmacist/doctor?**

- **If pain from your injury does not improve after several hours of "RICE" first aid treatment.**
- **If your injury looks deformed.**
- **If the area over your joint's injury is extremely tender.**
- **If you have severe loss of movement, numbness or are unable to bear weight.**
- **If your pain persists 5-7 days after the injury.**
- **If you have other non-related symptoms such as a fever or chills.**
- **If you have other medical conditions/take other medicines, especially cholesterol-lowering medicine.**

### **4. How do I know what type of support to get for my injury? Do they all do the same thing?**

There are many different types of supports available in the pharmacy. It is important to understand the 3 main types and how they work; this will then allow you to choose an appropriate support for your injury:

- **Elastic supports**—provide compression and support for wrists, ankles, knees and elbows
- **Stabilising supports**—provide extra joint support and protection during physical activity
- **Neoprene supports**—trap heat around the injured area. It is important to note these supports are not appropriate for immediate use after an injury. However, they are useful for long-term management of soft tissue injuries or stiff joints.



***And remember to always consult your pharmacist for advice!***