# Acute Soft Tissue Injury

This is how to deal with an acute\* soft tissue\*\* injury.  I.e. onset of sudden pain in a muscle, its tendon or a ligament, caused by an event.

Generally we are talking about strains\*\*\* and sprains\*\*\*\*.

The first 24-48 hours are critical to the recovery of the area (and surrounding tissues).  Ideally an injury is attended to immediately by a qualified medic or physio, but this is not always possible.  So here is what you should do.

**PROTECT**

Protect the injured area from further damage.

**REST**

Rest from movement and load bearing is absolutely vital for 24-48 hours.  If fibers have been torn apart, any movement will continue to open and aggravate the tear, causing much more bleeding, which in turn can delay repair.    It is better to over-react and allow the fibers to begin knitting together than to “soldier on” and to cause more damage.

**ICE**

Cool the area as soon as possible.

**Why?** - This slows down the bleeding and resultant swelling of the tissues to speed up healing of the fibers.  Also has an analgesic effect.  This numbing of the pain receptors, reduces the protective spasm around the injury and relaxes the area, again aiding recovery.

**What?** - Any cold will be better than none.  A cold pack wrapped in a damp cloth is ideal.  The damp cloth prevents an ice burn but facilitates the conduction of the cold to the skin. Ice can be applied but must be kept moving slowly.  Cold sprays are only effective on superficial injuries because spraying for longer periods (to aid larger trauma) damages/freezes the skin.  A possible solution may be to spray intermittently.

**How?** – Apply ice locally (only) to the injured site.  Secure without restricting blood flow to the remainder of the limb (i.e. don’t wrap a bandage round a limb tightly!).

How long? – Applying the ice too long kicks in the body’s defense mechanism of sending more blood to the area to prevent freezing!  Remove the cold before the skin turns red, ideally the skin should be pale.  The amount of time will depend on the area involved.

**How often?** – Allow the skin temperature to return to normal before immediately reapplying.

**COMPRESSION**

….should be applied immediately to restrict bleeding at the injured site.  This pressure compresses the blood vessels, preventing blood escaping through the ends of the torn fibers.  Use a firm pad over the injured site and strap in place.  Avoid compression around the entire limb or other areas will be blood starved.

**ELEVATION**

…helps to assist removal of swelling from the area.   Elevation can dramatically reduce the pain, but rest must continue to assist healing.  Elevation entails supporting the injured area above the torso.

**MASSAGE**

Massage should not be applied directly to acute injury because it can reopen the tears in the fibres.  By increasing the circulation it also encourages more bleeding.  Massage away from the injured site encourages lymphatic drainage.

**If after 48 hours the injury is not healed, this procedure can be continued, and medical advice should be sought.**

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*\*An ACUTE injury is the sudden appearance of an injury, often caused by a traumatic event (e.g. tearing a muscle when kicking a ball).  This is as opposed to a CHRONIC injury, which is a pain that develops over time, sometimes called an overuse injury (e.g. tennis elbow).*

*\*\*Here SOFT TISSUE describes MUSCLE, LIGAMENT (joins bone to bone), or TENDON (joins muscle to bone).  This is as opposed to injury to JOINT INURY (e.g. dislocation), to INNER ARTICULAR STRUCTURES (e.g. arthritis), NERVE problems (e.g. sciatica), or BURSAE problems (fluid filled sacs between tissues to prevent friction, e.g. bursitis of the knee)*

*\*\*\*The most common of all muscle injury is a muscle STRAIN (a rupture or tear of muscle or the tendon which attaches it to the bone).*

*\*\*\*\*A SPRAIN would concern tearing of the ligament.  Ligament begin the soft tissue that crosses a joint to hold one bone near another.*