

Help Guide:
Soft Tissue Injury



A soft tissue injury is any injury that creates damage to any muscle, ligament, tendon or combination of the above. Soft tissue injuries have many names, including:

- Sprain (damage to a ligament or a tendon),
- Strain (damage to a muscle),
- Contusions (breaking the skin - cut/graze/burn)
- Haematoma (a bruise)

Soft tissue injuries can also be from overuse of a particular part of the body.

- Symptoms:
- Pain
 - Swelling
 - Bruising
 - Loss of function

- Key facts:
- Soft tissue injuries are the most common injury type
 - Most problems come from actual physical damage to mechanical structures which will heal
 - Treatment methods are often specific to a condition, not a patient (what works for one person will likely work for another)
 - Problems rarely become long term (chronic) but there are cases which can only be managed, not cured
 - Simple home treatments will help
 - Most problems resolve in less than six weeks, very rarely lasting longer than 12

Trying to tell which problem you have can be difficult as you often need tests, x-rays or scans to get a definitive answer. If severe pain persists for more than 24 hours, seek the help of an experienced clinician (physio or consultant) who specialises in musculoskeletal injury. They will normally be able to give a diagnosis.

Having said that, most problems are obvious due to visible bruising or swelling, or loss of function and symptoms start to reduce quite quickly. These can easily be managed at home.

- Healing Phases:
- Inflammatory Response Phase: Days one to four, post-injury
 - Repair Phase: Often called the fibroblastic phase. Starts in the inflammatory phase but is normally said to be from day four up to six weeks (dependent on cause and severity of injury)
 - Re-modelling Phase: Often called the maturation phase. About six weeks onwards (can last for two to three years dependent on injury)

The PRICE Principle

Regardless of the diagnosis, several things help with soft tissue problems.

The RICE (rest, ice, compression, elevation) principle helps with acute injuries and has been extended to the PRICE (protection, rest, ice, compression, elevation) principle more recently. PRICE works well in the inflammatory and repair phases but is often not needed during the re-modelling phase.

Protection:

Protecting the injured area from further injury is key. If you were hurt during an activity, for example tennis, you will need to stop playing tennis to protect the area. In this phase the use of a support is often recommended.



However, supports are not necessary in every case and can have negative effects if worn over long periods of time. Ask for advice from your pharmacist. Most protection is worn for a maximum of six weeks (as prolonged use weakens the structures around the injury). If protection is needed longer term (this can happen in ligament damage), it should be used under medical supervision.

Relative rest:

Protecting the injured area is a good thing but, by the same token, some movement can help to promote recovery. Do not just sit in a chair or go to bed for long periods. This balance of rest and use is referred to as 'relative rest' and is very individual. What one person can do could be too much for another.

Common sense should prevail. If an activity is painful or makes the symptoms worse (your bruising/swelling/temperature increases) and can be avoided, then it is best to be avoided. However, some pain may occur in normal activities of daily living like walking up or down stairs. Obviously this can't be avoided but should instead be limited to as few trips as possible to limit exposure to the aggravating factor.

The ability to use the injured area (sometimes called exercise tolerance) alters as the problem changes over time. This leaves a constantly changing amount of activity you can do in any day, week or month and almost everyone does either too much or too little at some point. Remember you are looking for the right amount of activity overall to allow the injury to recover in the end.

Ice:

This can help with relieving pain, controlling swelling (if there is any), and limiting the amount of heat in the area (if the area is hot) by moderating the inflammatory process. Anything from the freezer can be used to apply ice to your injury. Frozen peas are the most popular as they mould to the area well. An ice pack or ice cubes in a towel can also be used.

Place the ice on the injury through a towel or your clothes, not directly onto the skin, and use for approximately 15-20 minutes, not more than once in any hour.

Apply as many times as possible until the symptoms of pain, swelling or heat go away (normally two - six weeks).



Ice massage:

Ice and massage combined are often reported as most effective by patients.

Take an ice cube and hold it in a tissue (so it doesn't stick to your fingers) and put some massage cream (you can use anything you are not allergic to - people use aqueous cream, E45, or even natural oils like sunflower or olive oil) onto the area. This helps the cube move and stops it sticking to you.

The ice will numb the area so you may have to start gently so as not to elicit too much pain. But the pressure can be increased to go deeper as the ice works.

This should be performed for five minutes, up to five times per day



Compression:

If the area is swollen, and you can bandage it, then compression will reduce the swelling very effectively. The most common way to apply compression is to use an elasticated tubular bandage called tubi-grip.

This can be purchased from any pharmacy for less than £5 and is sized compared to the size of your injured area (if you have a lot of swelling, the bandage may need to be big at first and then different sizes may be needed as the swelling subsides). Put the bandage on the injury and leave on during the day. **DO NOT** wear any compression bandages at night in bed unless under medical supervision. Compression should only be worn until the swelling subsides (normally two to six weeks) and should not be worn once the swelling has resolved.



Elevation:

Lifting the injured area (if possible) can help to drain the swelling and reduce the inflammation. Ideally the injured area would be raised above the level of the heart but this is not always practical. In the lower limbs, just putting a leg up on the sofa works (or, if at work, lift the leg and rest your foot on a bin). Elevation often works well when combined with compression. It should also be done for the same time as an ice pack. People often elevate and use the compression bandage and ice at the same time (the compression bandage acts as a great gap between the injury and the ice).

Try to elevate the area for up to 20 minutes (in the early stages you may only be able to tolerate five minutes due to increased pain). Then rest for at least 20 minutes to allow circulation to return to normal. Repeat as often as you can.

Elevation in bed during sleep is **NOT** recommended unless under medical supervision, as it can affect your circulation.



Controlling the pain:

Many people find they need pain relief just to function and your pharmacist can offer advice on this. Try not to fully mask the pain though, as you may well be doing more damage to the area. **DO NOT** use pain relief to allow yourself to play sports or perform hobbies.

Anti-inflammatories: Some problems don't involve a lot of inflammation, so anti-inflammatories won't work. However, many soft tissue problems do respond very well to anti-inflammatories. Remember, long term use can slow the healing process in some structures and so should be used judiciously.

Most people recover fully during the repair phase and find they can return to their normal daily activities, including sports, within six weeks.

Once into the remodelling phase, the use of ice is more limited. Heat can now increase the circulation to the area and improve healing.

Sprays and rubs do not penetrate well and should be avoided, but you can apply heat using a direct thermal source (a hot water bottle or wheat pack works well).

Use for up to 20 minutes, not more than once an hour, as many times in the day as possible until symptoms subside.



Exercise:

As with all things in life, some exercises and sports are harder than others. The general rules for returning to exercise/sport are:

- If it hurts, stop
- Start with a lower level and work up. Pace yourself - you don't get match fit in a day
- Can't get the exercises to work for you? See a physiotherapist for specific advice

Try stretching the area.

Our bodies want to heal as quickly as possible, but to achieve this the healing is often done very quickly, leaving us stiff. Great for healing but not so good for sport and exercise!

You can often stretch the area right from the first day of injury, but be gentle so as not to aggravate the injury.

Chose a stretch/stretches that works in and around the area, then perform it for:

- 30 seconds (hold)
- Repeat five times
- Do this five times per day

Stretches are most often best done first thing in the morning and last thing at night.

Continue stretching until you can return to pre-injury exercise/sport level.

Strengthening the area:

Most people agree that for the majority of soft tissue problems, strengthening the muscles around the area will reduce the symptoms even in the repair phase.

You should be careful not to re-injure or aggravate the area - if you can't play your sport, you might still be able to exercise and strengthen it in the gym.

Start with gentle exercises for higher repetitions/more time with less resistance and work up gradually over a few weeks back to your pre injury level.

Hard exercise and sport should be avoided in the inflammatory and repair phases and should only be returned to once the injury is recovered (or largely recovered), unless you are under the care of a physiotherapist, who might choose exercises specifically for you and your problem.

Return to sport:

Returning to sport is always a judgement call. You may or may not survive if you go too hard, too fast. Preparation is key! If you can't do the warm up/ conditioning exercises, you won't be able to play, so start with these first:

- Increase your conditioning exercises. Start with a short session and build up to longer sessions.
- Build your conditioning back up in intensity and length - you need to be able to last at least some of the game/match.
- Practise your skills (a teammate can help here) starting short and easy, then building up gradually.
- Return to formal training. Again, start low - do the training you can and go for the length of time you can manage. Build back to full training.
- Perform in the sport at full level but for shorter time periods. Start by doing part of the game/match where possible. Substituting in team sports is a good example of this.

It takes time to fully recover sport conditioning after having weeks off to recover from an injury.

You may need a consultation!

Soft tissue problems can be very difficult and debilitating. Correct advice and treatment can make an enormous difference. If you have persistent pain, contact Physio Med for advice and consultation.

When to seek immediate further advice:

- If the pain is severe for more than 24 hours
- The problem has not resolved after six weeks
- You are unable to return to exercises/sport

Remember, if you try any of the things above and you feel they make you worse not better, contact us for individual advice!!!

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