

Early Management of Lower Limb Sprains and Strains



Patient Information

Sprains and Strains are a common musculoskeletal injury.

Virtually any part of your body can be sprained or strained from an accident, sporting injury or even from doing a job around the home.

A **sprain** is a stretch or tear to a ligament - the tissue that connects bones together. Sprains occur as a result of abnormal forces applied to a joint. Symptoms of a sprain can include pain, swelling, bruising and restriction of movement in the affected area.

A **strain** is a twist, pull or tear of a muscle or tendon (the tough, narrow tissue at the end of a muscle that connects it to the bone). It is caused by overstretching or overcontracting a muscle. Symptoms of a strain can include pain, muscle spasm and weakness in the muscle. Strains are common injuries in many sports, particularly those that involve running and jumping.

Signs that may suggest a more **severe injury** include:

- Severe pain which does not subside
- Immediate and profuse swelling
- Deformity – the injured part of your body may look misshapen
- Extreme loss of function i.e., you are unable to put any weight on your leg.
- Noises (grating or cracking) at injury site

If you feel your injury is severe you may need to attend a minor injury unit (MIU) or emergency department.

If you feel your injury is not improving after 5-7 days, or is worsening, you should call 111 who can organise a review with your local minor injury's unit, emergency department, urgent treatment centre, GP or first contact practitioner.

Early Management: (24-72 hours)

Sprains and strains can normally be managed at home following the acronym **PEACE**¹ which stands for:

¹ <https://bjsm.bmj.com/content/54/2/72>

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Protection and Pain relief, protect your affected limb from further injury by resting for the first 72 hours. You can take simple pain relief such as paracetamol as guided by your health professional. The use of knee range of movement braces and ankle boots not usually indicated for soft tissue injuries unless specified otherwise by your healthcare professional.

Elevate, lift your affected limb up onto a pillow to help reduce swelling, higher than the heart, as often as possible.

Avoid, avoid alcohol and anti-inflammatories as they can affect normal healing.

Cold and Compression, Cold, you can use ice packs to help with pain and swelling. Ice should be applied for no longer 10-15 minutes every 2 hours. The ice must not touch the skin directly as this may cause a cold burn, so place a damp towel over the injured part first. Frozen peas wrapped in a damp tea towel can be used. Do not use ice if you are diabetic or over areas of skin that are in poor condition or with poor sensation. Do not use ice packs on the left shoulder if you have a heart condition. Do not use ice packs around the front or side of the neck. Do not fall asleep with the ice pack in place as this can lead to ice burns.

Compression, we do not recommend using tube grip for compression. The only forms of compression recommended include Elastoplast taping, wool crepe, compression stockings, or air support compression. Unfortunately, none of these are currently available within our services, if you wish to source these yourself please discuss with your health care professional.

Exercise and Expectations, Exercise, pain free gentle movements of the injured limb can start as soon as the pain allows, please see below exercises. Unless you are specifically directed to by a health care professional it is important that you try to put some weight through your lower limb as soon as the pain will allow as this helps with the healing. You may be given elbow crutches to help you put weight through your affected limb.

Expectations, Symptoms will gradually settle over the first few days. However, the pain may take several weeks to go completely, especially when you use the injured joint. Symptoms will generally resolve within 6-12 weeks. If you are not improving in this time, or are concerned about your progress, please seek further advice from your GP or Minor Injuries Unit who may decide that a referral to a physiotherapist is required.

After 48-72 hours:

Movement should replace rest. Gently get the joint moving again by doing gentle exercises several times a day. The aim is to get the joint moving normally and prevent stiffness. Don't do anything that causes too much pain. You should not play sport or do vigorous exercise involving the sprained joint for 3-4 weeks after an

injury. The time to return to these activities may be longer depending on the extent of your injury.

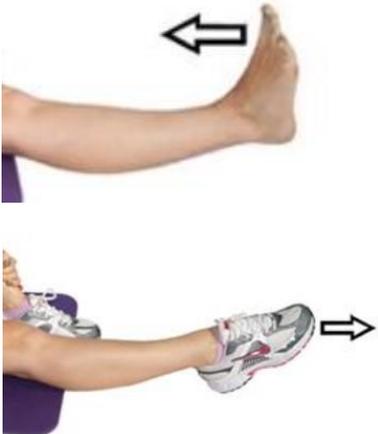
Things to look out for:

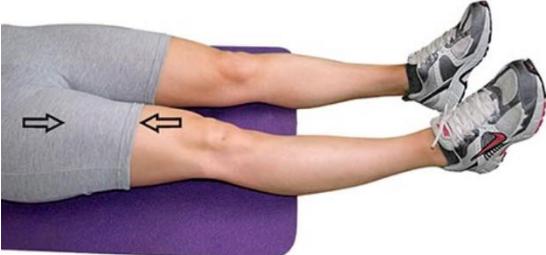
If you notice any of the below signs and symptoms on the affected limb please seek urgent review by calling 111 or attending your local MIU/A+E.

- Constant pain, increased swelling or redness tracking up the limb, and the skin becomes hot to touch
- Feeling unwell, night sweats and/or fevers
- The limb becomes numb, pins and needles, blue colour to the skin and very cold to touch.
- Worsening pain despite rest, elevation, ice, and simple pain relief.

Exercises for the Lower Limb:

Your health care professional will tell you which exercises you are to complete at home. Complete these gentle exercises 2-3x per day. Try to complete between 5 and 15 repetitions within the limits of your pain. Try to keep the movements smooth and gentle avoiding pain.

<p>Ankle Range of Movement</p> <p>Bend your ankle gently bringing your toes towards you, then point your toes away from you.</p> <p>You can loop a towel underneath your foot to help bring your toes towards you.</p>	
<p>Toe Flexion</p> <p>With your heel flat on the floor crunch your toes and then relax.</p>	

<p>Knee Active Flexion and Extension</p> <p>In sitting or lying, gently bend your knee by sliding your foot towards you. Then slide your foot away straightening your knee.</p>	
<p>Static Quadriceps</p> <p>In sitting or lying, with your leg straight out in front of you, squeeze your quadriceps muscles down the front of your thigh by straightening the knee.</p>	

Safeguarding

Wiltshire Health and Care (WHC) are committed to safeguarding and promoting the welfare of children, young people and adults at risk of abuse, including victims and survivors of domestic abuse. We expect all WHC staff to share this commitment and promote safeguarding by implementing WHC policies and procedures, act promptly on concerns and share information appropriately.

If you or your carer have any concerns regarding a child or adult's safety, please phone Wiltshire Safeguarding Team on 0300 456 0111 (Adult) or 0300 456 0108 (Child) (9am – 5pm Monday - Friday) or please call 999 if you feel they are in immediate danger.

Patient Advice and Liaison Service (PALS)

If you have any questions, or concerns, suggestions or compliments about our service, please speak to a member of staff.

This information sheet is available in other languages and formats. If you would like a copy, please contact us on 0300 123 7797 and whc.pals@nhs.net

Patient and Public Involvement

We value your opinions which will help us to further develop our services.

If you wish to provide feedback or get involved in our patient participation groups, please email the Patient and Public Involvement Officer at ask.wiltshirehealthandcare@nhs.net or telephone 01249 454386.