

Treating inflammation with PRICE - immediately after injury and for 3-5 days afterwards

Tissue injury usually involves damage to small blood vessels that results in bleeding at the site of injury. This bleeding leads to the five main signs of inflammation: heat, redness, swelling, pain and loss of function. The inflammatory reaction is necessary as it is part of the natural healing process. However the body tends to overreact to sudden traumatic injury and as a result more inflammatory fluid accumulates than is necessary for healing. This fluid contains a protein that turns into replacement 'scar' tissue. Too much scar tissue may prevent the structure returning to normal function with reduced flexibility and increased risk of re-injury. The advice below should be followed for 3-5 days depending on severity. It can be remembered by the acronym **PRICE**.

- **PROTECT** - Protect the injured tissue from undue stress that may disrupt the healing process and/or cause further injury. Make sure the mode of protection can accommodate swelling.
- **REST** - This reduces the energy requirements of the area, avoids any unnecessary increase in blood flow, ensures protection of the area and optimises healing. For example using slings, crutches or static rest (ie. sitting or lying down).
- **ICE** - The ice helps constrict the blood vessels thereby limiting bleeding and reducing the accumulation of unnecessary scar tissue. Crushed ice wrapped in a damp towel (to prevent ice burn) is best (ice cubes can be wrapped in the cloth and smashed against a wall to crush the cubes). Ice should be applied immediately after injury for 20 minutes every 3-4 hours or no more than 5-10 minutes at a time on bony areas.
- **COMPRESSION** - Simple off-the-shelf compression bandages such as Tubigrip™ and adjustable neoprene supports are adequate. It is important to ensure the bandages are not too tight to cause pins and needles or any loss of feeling around the joint.
- **ELEVATION** - Lowers the blood pressure and helps limit bleeding and encourage drainage of fluid through the lymphatic system.

When following **PRICE** it is also important to avoid **HARM**, hence the saying: 'Give **PRICE** and avoid **HARM**'.

AVOID

H - Heat (eg. hot bath, sauna)

A - Alcohol

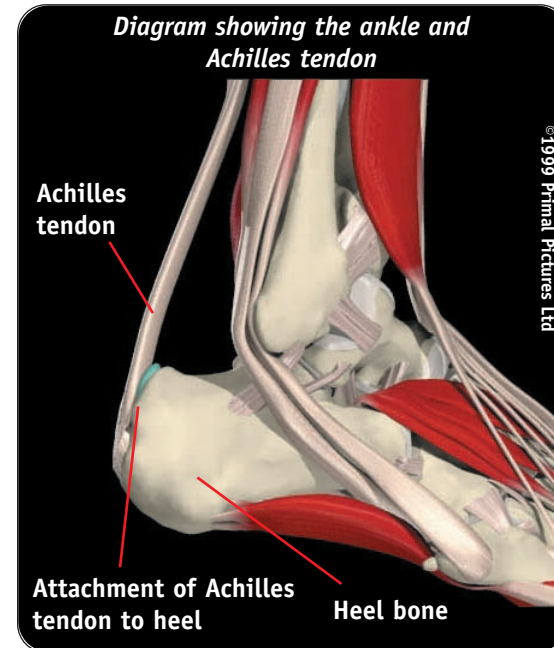
R - Running

M - Massage



these are counter-productive to **PRICE** treatment

Exercises for Achilles tendinosis rehabilitation



USEFUL RESOURCES

- SportEX Medicine magazine
www.sportex.net
- The Organisation of Chartered Physiotherapists in Private Practice -
www.physiofirst.org.uk
- General Osteopathic Council
www.osteopathy.org.uk
- The Sports Massage Association
www.thesma.org
- The Osteopathic Sports Care Association
www.osca.org.uk

YOUR INJURY

Achilles tendonitis is a condition that affects the lower end of your Achilles tendon which connects your calf muscle to your heel. It involves degeneration of the tendon and is common in men.

The symptoms include:

- a gradual onset of pain during and after exercise over the tendon
- stiffness in the morning
- pain when you do a heel raise

It is important that this injury is not allowed to become a long-term problem which may lead to permanent tendon damage.

WARM UP & WARM DOWN

When injured it is particularly important that you warm up with a fast walk (at a pain free pace) for 3-4 minutes before you start your exercises. This increases your circulation and helps prepare your muscles for the activity to come.

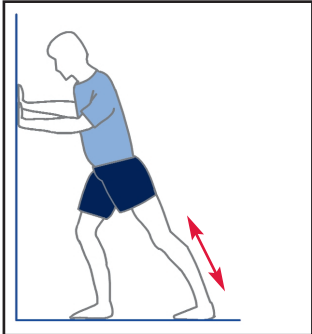
When you have finished your exercises it is also important to allow your heart rate to slow down gradually by ending the session with a gentle walk for 3-4 minutes.

Exercises for Achilles tendinosis rehabilitation

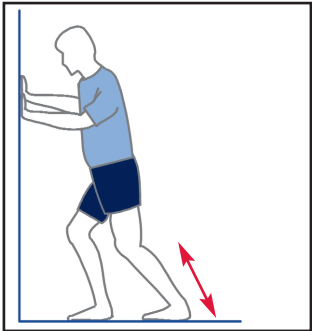
Stretching exercises

Guidance for stretching exercises

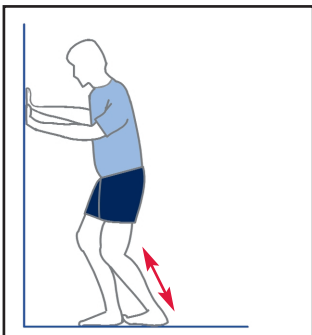
Hold all the stretches for 20 seconds each and repeat them three times on each leg.



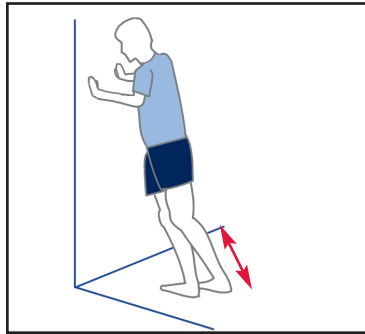
1 Gastrocnemius stretch
Take the position shown to the left, with feet pointing forwards and heels in contact with floor. Bend the front knee and straighten the back knee keeping your head up and pelvis/hips forward. You should feel a stretch in your calf muscle area.



2 Soleus stretch
Keep the same position as the previous gastrocnemius stretch but bend the back knee while keeping the heels on the floor. Again you should feel this stretch in your calf area, although this exercise stretches a different muscle to that in stretch 1 above.



3 Flexor hallucis longus stretch
Again in the same position as above, bring your back foot forward and place your big toe against your heel so that it stretches your toe upwards. The muscle you are stretching is attached to your toe.



4 Tibialis posterior stretch
Cross the unaffected leg in front of the affected leg, keeping the heels on the ground. You should feel a stretch in the back of your calf.

Strengthening exercises

Your rehabilitation programme

This exercise programme has specific exercises to stretch tight muscles and strengthen the muscles around the ankle as well as improve dynamic control and ankle joint position sense (proprioception). In order to achieve proper rehabilitation of your injury it is important to ensure the exercises are performed with good technique. Poor practice leads to poor performance and potential strain on your injury. This leaflet includes some exercises to help in your rehabilitation.

