



Acute Muscle Strains

Acute muscle tears occur when they are overstressed or put on sudden stretch such as when sprinting, changing direction, and during rapid movements against resistance such as kicking a ball. They may also occur from a direct blow to the body such as in contact sports. Muscle tears are graded from one to three, depending on the extent of the tear.

Symptoms:

Grade one is a minor tear where less than 10% of fibres are damaged:

- discomfort in the area, especially during and post exercise
- a feeling of tightness
- an area which is tender to touch
- requires two to three weeks rest

Grade two is a moderate tear where between 10-90% of fibres are torn. Due to the large variability of fibres torn, often grade two strains are further categorised into grade two minus or two plus tears:

- sudden sharp pain in the muscle during exercise
- tightening of the muscle, especially the following day
- minor bruising or swelling
- weakness and pain with contraction of the muscle
- discomfort or pain when stretching the muscle
- activity is limited due to pain
- rest period between three and six weeks

Grade three injuries are the most serious being partial or full fibre ruptures:

- severe pain during exercise
- inability to contract the muscle
- substantial swelling and bruising
- pain when attempting to stretch the muscle
- a lump or gap in the muscle may be prominent
- may require surgery to repair the damaged muscle
- rehabilitation time may take approximately three months

Treatment:

During the first 48-72 hours following the injury apply the R.I.C.E protocol:

- **R**est the affected limb
- **I**ce over a damp cloth for 10-15 minutes every 1-2 hours
- **C**ompress the limb using a compression bandage
- **E**levate the affected limb above the height of the heart

Pain medication may be prescribed if necessary by your health professional or chemist.

When pain and swelling are reduced, gentle stretching of the affected muscle to a point of comfortable stretch can begin. This should be pain-free and held for 20-30 seconds, repeated three times and performed throughout the day.

Your physiotherapist can offer you further advice on treatment, as well as perform adjunct treatment techniques including ultrasound, gentle massage, stretches and strengthening exercises not only to promote and enhance the recovery phase, but also prevent the injury from re-occurring.



For more information, please consult your physiotherapist or contact us on ([hyperlink to email address](#))