

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

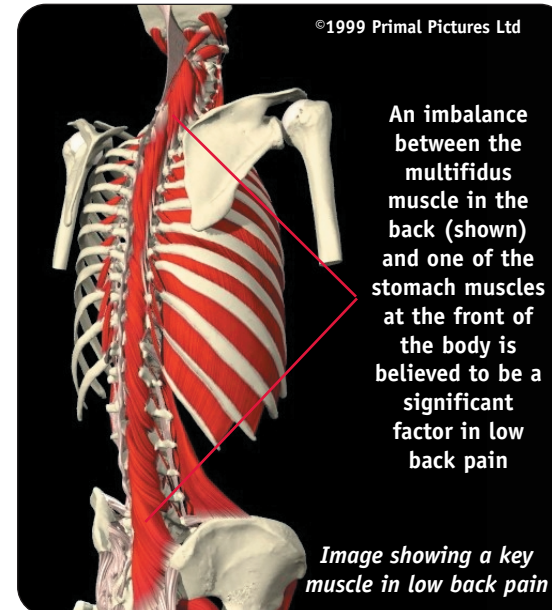
R - Running

M - Massage



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

Exercises and advice for chronic low back pain



An imbalance between the multifidus muscle in the back (shown) and one of the stomach muscles at the front of the body is believed to be a significant factor in low back pain

YOUR INJURY

Chronic low back pain often results from a weakness in the muscles supporting your back which may lead to instability or incorrect functioning of the lower part of the spine (lumbar spine). Strengthening the muscles responsible for providing support to the spine is therefore very important. You need to remember to strengthen your stomach muscles as well as your back muscles so that your spine is equally supported at both the front and the back. Loss of stability in your spine can lead to microscopic damage to the surrounding soft tissues so it is particularly important to address this problem quickly to minimise damage.

WARM UP & WARM DOWN

When injured it is important that you warm up with a fast walk 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 and advice for chronic low back pain

You can actively manage your back by:

- Remaining active in all settings (at home, at work, in the community, at leisure).
- Keeping mobile - keeping fit.
- Making an early return to normal activities, following an acute attack of low back pain, then gradually and progressively returning to regular physical activity.
- Staying at work - bed rest is not effective.
- Modifying your activities and environment.
- Using extra physical support (eg. cushions, wear flatter shoes).
- Maintaining a good posture at all times.
- Using your thighs to bend and lift and not your back.

Adaptations for active daily living

Try and avoid sitting for a long time (maximum 15 mins) - give yourself a reason to get up and move around or stretch. Keep the phone or remote control away from you, get up to put washing in the machine. Notice and then act when you feel stiff, perform regular 'release/relief' stretches.

If you are sitting in a poorly supported chair - place a cushion, or a rolled towel or bag (if you are caught out in a restaurant) in the 'small' of your back where it helps to maintain normal curvature of the spine and prevents slumping. Try turning a chair around backwards and straddling the seat. The back of the chair will support the trunk.

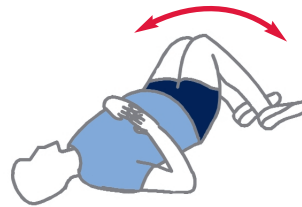
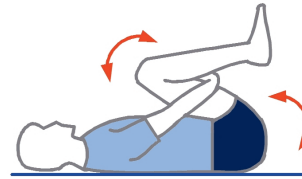
When Hoovering - use a vacuum that is not heavy and which has a height-adjustable handle. Keep the handle close to your stomach, keep upright and keep moving your feet to avoid stooping. To clean under tables or chairs, bend at your hips and knees or if your knees permit, kneel on one knee keeping your body upright.

If you clean your teeth at a low basin - to avoid stooping move your feet wider apart to lower your trunk. Place one hand on the sink for support if necessary and bend at the hips keeping a straight back or raise one foot on to a ledge (if there is one), or try kneeling using the sink for support or sitting down. Alternatively install a higher basin!

Release/relief stretches

1 Supine knees-to-chest lower back stretch

Lie on your back on a bed or the floor. Bring your knees slowly into your chest and hold for 5 seconds. Rock forwards/backwards keeping your head on the bed or floor and generating a gentle rhythm.



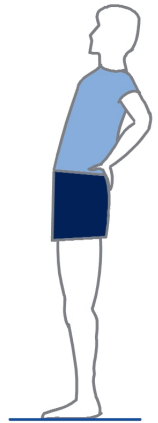
2 Knee rolling

Lie on your back with your knees bent and together. Keep your shoulders on the floor throughout the

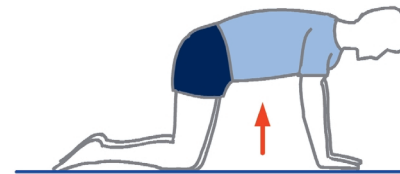
exercise. Slowly roll your knees from side to side keeping your upper body still. Repeat 6-10 times.

3 Back bends

Stand with your feet hip distance apart and place both hands in the small of your back. Pull in your lower stomach muscles, and lean gently backwards letting your hips relax forwards and keeping your knees straight throughout the exercise. Repeat 4-6 times.



Strengthening exercises

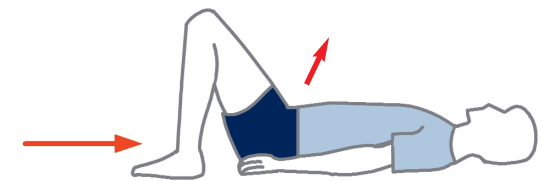


1 Abdominal hollowing of the lower stomach muscles

Kneel on all fours, hands under your shoulders and hips over your knees. Breathe in through your nose and out through your mouth pulling the lower stomach muscles in towards your spine without moving the trunk. Hold for 6-10 seconds. Repeat six times.

2 Back strengthening

Lie on your back with your legs out straight in front. Perform a pelvic tilt by tilting the pelvis upwards and letting the spine flatten a little against the floor. Holding your back flat in this position, slide your heels up to your body as shown in the diagram. Repeat this exercise 10 times.



3 Prone trunk lift (gluteals/back extensors)

Lie on your front, with your arms by your side and your forehead touching the floor or bed. Breathe in, breathe out, squeeze your buttocks and slowly lift your trunk (eyes looking down). Hold for 6 seconds. Slowly lower your body to the floor. Repeat 6-10 times increasing the 'hold' by one second each time.



PRACTITIONER CONTACT
DETAILS