



**LOW BACK
PAIN
RELIEF
&
RECOVERY
GUIDE**

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Introduction

Lower back pain is extremely common – estimated to affect more than half of the adult population annually with more than 10% experiencing frequent episodes. Recurrent lower back pain can be extremely frustrating but there are a number of things **you** can do, alongside treatment, to speed up your recovery from lower back pain.

This guide, backed by the latest scientific research, will teach you what to do and what not to do for a faster, more complete, recovery.

How to use this guide

This guide provides **general** information for patients with low back pain. Pick and choose what is suitable for your current situation and stage of recovery. Your practitioner will provide you with **specific** recommendations and exercise once they have completed a full examination.

Active Rest

One of the most important things to do after injury is to keep mobile. Movement is key for proper healing and has been shown to:

1. Accelerate tendon, ligament, muscle and bone healing [1].
2. Increase strength of recovering tissues [2].
3. Induce more rapid and intensive blood vessel growth into the injured area leading to enhanced blood flow and improved healing [3].

However, excessive or uncontrolled movement will disrupt tissue repair and may cause further damage. We need to limit the strain on the lower back enough to reduce pain and sensitivity but keep it moving enough to encourage proper healing = **active rest**.

The intensity of movement must be scaled according to the type, degree and stage of injury. The sections below detail how to safely introduce movement in cases of acute lower back pain.

NB: In some severe cases, a day or two of rest may be warranted. However, movement and loading should still be performed as soon as possible but this should never result in an increase in pain.

Microbreaks

Particularly important for lower back recovery is minimising sitting time. A good rule of thumb is not to sit for more than 20-30 minutes without getting up. With severe back injuries you may want to get up even more regularly than this. [Microbreaks](#) are a perfect way to break up periods of sitting and get the low back moving again.

For more information on creating a healthy, movement friendly, workspace take a look at the [Ergonomic Solution eBook](#).

Walking

Walking is an easy and convenient form of active rest. It is safe and generally well tolerated even for those with acute lower back pain and is therefore a useful tool for lower back pain recovery. In order not to overload the back, try to get out for a few short walks throughout the day rather than one long walk.

Your walking posture is also important. Walking slumped, with short strides and not swinging your arms will lead to more load on your spine and possibly exacerbate pain. Instead, walk with a tall posture, at a brisk but comfortable pace, swinging your arms from your shoulders.



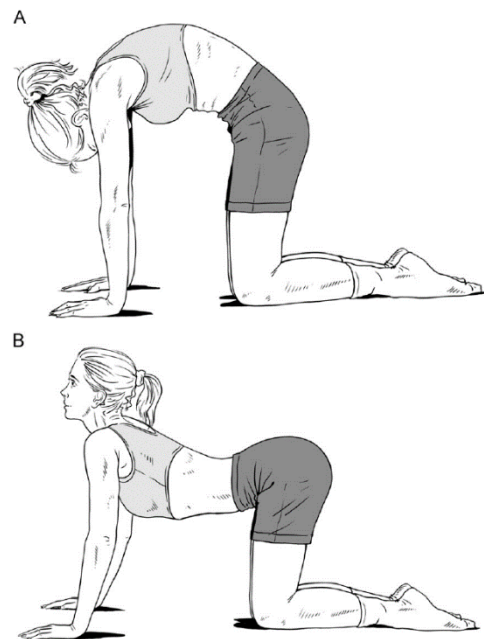
Mobility exercises

Specific mobility exercises can also be incorporated to help safely mobilise the spine and hips.

Cat camel

The cat camel is a great way to gently move the spine but with very low load making it extremely safe. Most low back patients, even those with severe pain, are able to perform the cat camel immediately. To perform:

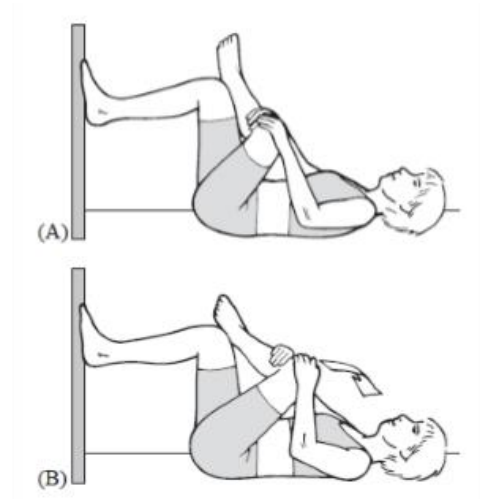
- Start on all fours.
- Slowly move from position (A) to position (B) moving the whole spine including the neck but only go as far as you can pain free.
- Perform 8-12 reps as often as once per hour.



Restriction in the hips is a common problem for low back pain sufferers. Gentle stretching exercises can help improve hip mobility unloading the lower back and reducing pain:

Figure 4 Stretch Supine

- Lie on your back with one foot against a wall with the knee bent at 90° (see image).
- Cross your other foot onto your knee and use both hands to gently pull that knee towards your opposite shoulder.
- You should feel the stretch in the back of the hip being pulled. You should not feel pain, discomfort or tightness in the lower back.
- Hold this position for up to 2 minutes and repeat 2-5 times a day.
- Common mistakes
 - Holding your breath.
 - Rounding your lower back (if needed, you can place a small cushion or folded towel in the small of your back to prevent it rounding).



Lunge Stretch

- Kneel in a lunge position with your spine upright but without over-extending through the lower back. If your lower back is over-arching, hinge forward slightly from the hips.
- Tilt your pelvis backwards (without squeezing your buttocks) until you start to feel a slight pull in the front of your thigh
- If needed, gently push your thigh forwards to increase the stretch.
- You should feel the stretch in the front of the rear thigh. You should not feel pain, discomfort or tightness in the lower back.
- Hold for up to 2 minutes and repeat 2-5 times a day.
- This can also be performed in a standing position.
- Common mistakes
 - Not tilting the pelvis backwards
 - Over-extending the lower back.
 - Squeezing your gluts or stomach
 - Holding your breath



Summary

- Active rest is key for complete healing and recovery from lower back pain.
- Walking is an easy, convenient way to keep the spine moving and is well tolerated by most back pain patients.
- Specific mobility exercises such as the cat camel, lunge and figure four stretches can be added to your active rest routine.

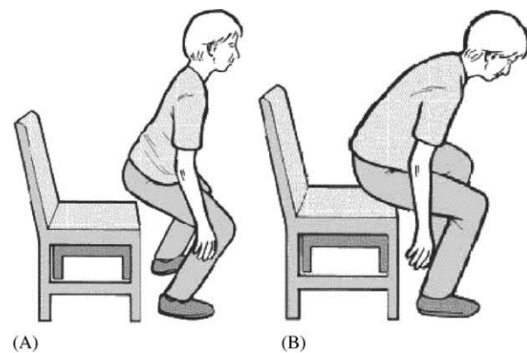
Spine Sparing

Sparring movement patterns

Moving in the wrong way can place increased stress on the back, exacerbating pain and limiting recovery. The most common source of injury to the low back occurs when bending. Like repeatedly picking a scab, repetitive bending of the spine during recovery will result in further damage and irritation.

It's therefore important to spare the spine when bending by hinging from the hips instead of the back and keeping your chest tall. This 'hip hinge' can be applied to a variety of daily activities to help protect the back and avoid re-injury.

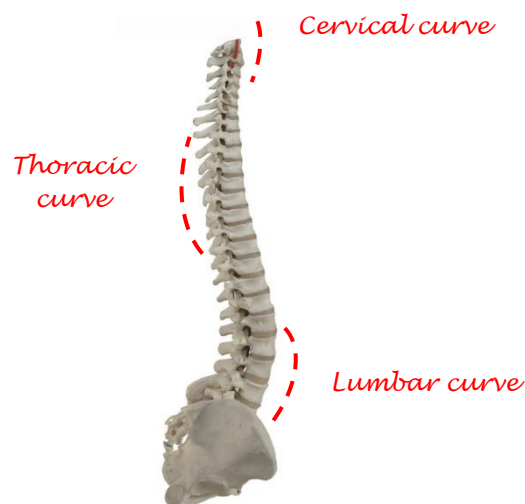
1. Getting out of a chair
2. Lifting
3. Brushing teeth
4. Putting on shoes
5. Getting out of bed
6. Getting up and down from the floor



Slumped sitting

The human spine naturally forms an S-shape, with the spine curving forwards at the lower back, outwards at the middle back and forwards again at the neck.

When we sit most of us have a tendency to slump, which reverses the natural curve of the lower back. In this slumped position the muscles and ligaments at the bottom of the back are stretched and more pressure is placed on the discs which is why sitting is a common factor in many low back complaints.



A lumbar roll can assist in preserving the normal alignment of the lower back and help to alleviate neck and lower back pain. While many chairs have a built-in lumbar support, it is often inadequate to properly support the lower back because most chairs are designed for people of an “average” build.

If your chair doesn't have any lumbar support, or the lumbar support isn't substantial enough for your body type, a lumbar roll is an inexpensive but effective addition. They are also very useful for cars which often have a bucketed seat shape putting your spine into a slumped position.

“66 fit” and “McKenzie” lumbar rolls are very good quality and come in a variety of sizes to suit most people's needs. They also come with an adjustable elastic strap, making fitting and moving the rolls very easy.

Prolonged sitting

Although holding a good posture when sitting can reduce low back stresses, holding any one posture for a prolonged period of time will still lead to increased stiffness and tension. You should therefore get up and move regularly – see microbreak section above.

Sit ups

When we talk about strengthening the lower back most peoples' first thought is sit ups. However, sit ups are not a good exercise of choice for most people and especially for back pain sufferers.

Sit ups place a large load on the spine which often worsens low back complaints. The trunk muscles can be more effectively and safely trained with alternative exercises such as side bridge, birddog and plank progressions (see below).



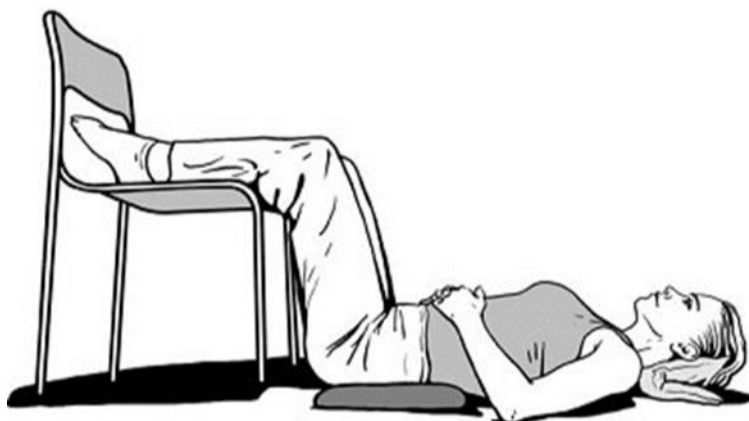
Pain relief strategies:

1

Rest positions

In severe cases of low back pain just finding a comfortable position can be difficult. The 'dead bug' position places the spine in a neutral position and brings the pelvic floor and diaphragm into good alignment. This reduces excessive tension in the low back and eases pain for most low back pain sufferers.

Dead Bug rest position



- Lay on your back next to a chair – If needed, place a pillow under your head and/or under your lower back to maintain its natural curve. There should be a slight arch of the lower back – it should not round into the floor.
- Lift your legs one at a time onto the chair. Your hips should be at a 90 degree angle.
- Rest your hands on your stomach.
- Relax and breathe into your stomach and the sides of your lower ribs. Try not to breathe into your upper chest.
- Do not stay in this position for longer than 30 minutes without getting up and gently moving (see active rest section).

Cobra rest position



In patients with sciatica, or a back problem that is aggravated in the morning, after sitting or driving, or worse when bending forward, the cobra position is generally recommended:

- Lay face down, resting on your forearms, with palms turned down.
- Push through your elbows to lift your chest and shoulders and slightly arch the low back.
- Completely relax your stomach and buttocks.
- Breathe into your stomach and sides of your lower ribs – with each exhalation think about letting your back sink further into the floor.
- Hold this position for 2-5 minutes.
- If lifting to your elbows is aggravating, start instead by placing one fist on top of the other and then resting your chin on top. This produces less extension in the lower back and can be more comfortable in very acute complaints.

2

Anti-inflammatory medication

Anti-inflammatory medication (NSAIDs) can be an effective option for short term pain relief in cases of muscle and joint injury, however research suggests that they should be used with caution.

Inflammation is commonly seen as “bad” and something that needs to be eliminated as quickly as possible. However, the reality is that acute inflammation is a vital first step in the healing process. When any tissue of the body is injured healing occurs in three phases:

1. The Inflammatory phase
2. The Repair phase
3. The Remodelling phase

Each phase of healing is necessary for the subsequent phase. In fact it has been said that “Inflammation can occur without healing but healing cannot occur without inflammation”.

Research shows that minimising the inflammatory stage of healing with the use of anti-inflammatory medication likely has some negative long term consequences:

- “ the use of these medications [NSAIDs] inhibits ligament healing, and thus, leads to impaired mechanical strength” [4]
- “NSAIDS appear to have a positive effect on the evolution of an acute ligament injury... **However**, in the long term, this rapid return is likely to be at the detriment of good healing [5]”
- “We do not recommend their [NSAIDs] use for muscle injuries, bone fractures (also stress fractures) or chronic tendinopathy.” [5]

In summary, anti-inflammatory medication will likely decrease pain in the short-term but they may do so at a cost to complete tissue healing. If you do choose to take NSAIDs, you should take the minimum effective dose for the shortest possible time.

3 SIJ belts

For patients with pain from the SI (sacroiliac) joints, SIJ belts can help to compress and support the sacroiliac joints, reducing pain. They are particularly useful in the early stages of injury before strengthening exercises can be initiated. They can also be effective in pregnancy-related pelvic pain. We recommend the SIJ belt from 'Serola'.

4 Contrast therapy

Contrast therapy involves applying alternating hot and cold to the injured tissue. It is a simple, safe and cheap method of aiding recovery and reducing pain. Heating and cooling helps to stimulate blood circulation and has a positive effect on inflammation. Cooling also has an analgesic effect and therefore contrast therapy can be a useful aid to reduce pain prior to performing mobilisation exercises.



Hot and cold can be applied in a variety of ways. With lower back pain it is usually easiest to perform in the shower or using [hot / cold packs](#). If using hot / cold packs make sure you wrap them in a tea cloth to avoid contact burns.

- Apply heat to the lower back for 1-3 minutes. Remove.
- Apply cold to the lower back for 1-3 minutes. Remove.
- Repeat the process 3-5 times.
- For best results perform gentle mobilisation exercises (see above) after each bout of ice and heat or after the complete session.

Reactivation

Lower back pain often results in inhibition (shutting off) of specific spinal stabilisers which is part of the reason why patients often complain they feel weak or that their back feels vulnerable. Reactivation exercises are important to 're-start' those key stabilisers helping to further reduce pain, improve movement and prevent re-injury.

The side bridge and birddog exercises are excellent first options. They strongly activate many of the key spinal stabilising muscles but with low spine loading making them very effective but extremely safe. This means that in most cases they can be introduced early into your recovery program.

NB: Reactivation exercises should be pain free and 'felt' in the targeted muscles. If the exercise causes pain or you are unsure whether you are performing it correctly, stop and check with your chiropractor.

Side Bridge

- Start the exercise lying on one side on your knees, feet and forearms, with your hips and knees slightly bent (image 1).
- Your feet, hips & shoulders are in one line.
- Lift your lower hip up slightly and pull your lower shoulder down away from your ear so that your spine begins to straighten (image 2).
- Move into the plank position raising your hips up and forward (image 3).
- Hold the position for 2 breaths before relaxing back into the ready position.
- Try & breathe into your stomach & the sides of your lower ribs rather than into your shoulders.
- You should feel the muscles on the bottom side of your trunk working hard.



Bird dog

- Start on your hands and knees with your hands directly under your shoulders and knees directly under your hips. Think about 'lengthening' the spine.
- Maintain this trunk position as you reach out one arm in front of you (image 1).
- The goal is to move only from the shoulder, making sure your pelvis doesn't drop or shift to the side and the lower back doesn't arch as you reach.
- Hold this position for a few seconds before returning to the start position.
- To progress this exercise you can extend one leg behind you (leg reach – image 2).
- It can be advanced further by extending one arm and the opposite leg (arm and leg reach – image 3).



- You should feel your core and hip muscles working, not your lower back.
- Whilst doing these exercises it is important to avoid the following:
 - Poking your chin out.
 - Letting your shoulder blades stick out.
 - Rounding your mid-back.
 - Arching your lower back.
 - Dropping or shifting your pelvis to one side.
 - Holding your breath.

These exercises have been shown to reduce 'micro' joint movements that trigger pain for approximately an hour or two after they have been performed. Therefore, in the early stages of recovery, perform them 2-3 times per day to reduce pain and enhance recovery.

Extra Advice:

Sleep

Sleep timing

Sleep is extremely important, especially when recovery from injury. When tissues have been damaged, the rate of healing is greatest during sleep, whatever time of day the injury occurred [6]. Sleep also affects pain tolerance, with sleep disruption having been found to reduce pressure pain thresholds by 24% the next day [7].

It's therefore important to ensure you are getting enough sleep when recovering from back problems. Unfortunately, however, staying in bed for excessive periods (more than 8 hours) can also cause problems:

When you lie down the discs between your vertebrae attract water and swell. This swelling increases disc bending stresses by up to 300% and ligament stresses by 80%! This is why you are taller in the mornings and often most stiff. More time in bed leads to more swelling. So, while 8 hours in bed is healthy, much longer than that can exacerbate back pain due to increased disc swelling.



Sleeping Position

For many back pain patients just trying to get to sleep can be a nightmare. Unfortunately, when it comes to what is the best sleeping position there is no definitive answer. Listed below are positions that are generally well tolerated but every patient is different. Use pain as your guide and be prepared to switch positions regularly throughout the night in order to remain somewhat comfortable.

1. **Foetal position** with a pillow between knees
2. **Supine** (on your back) with a pillow under knees.
3. **Prone** (stomach sleeping) – although this not a generally recommended long term sleeping position, it can be comfortable in the short term for many patients with disc pain. Another alternative for those with disc pain is to sleep supine with a pillow under the lower back to prevent it flexing into the mattress.

Nutrition

Pro-inflammatory diets (increased sugar, increased refined oils & decreased fruit & veg) and nutrient deficiencies can decrease tissue repair exacerbating current pains and predisposing to future injury. For more information, take a look at our [Nutrition Resources Page](#).

“

Let food be thy medicine & medicine be thy food - Hippocrates

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Images

Selected images reproduced from Liebensson. C., *Journal of Bodywork and Movement Therapies*.

