

Training Safely With Lower Back Pain



Lower back pain is a common condition affecting nearly half of the adult population each year. Although it can be painful and debilitating, it doesn't necessarily mean you have to stop training. In fact, exercise is extremely effective in reducing symptoms of lower back pain. Furthermore, it can be very effective in reducing the risk of you developing lower back pain

Causes of LBP?

There are a number of factors which can predispose an individual to lower back pain including being overweight, genetics, postural abnormalities etc. There are also more specific causes for those partaking in physical exercise. These include:

Inadequate warm up.

Picking up weights from the floor or setting them down incorrectly.

Bending from the back rather than bending from the knees when lifting.

Performing a high amount of impact based movement before the body has warmed up, or before the body is fit enough to absorb the impact.

Repeatedly bending and extending the low back by doing hundreds of crunches or low back extensions, two popular exercises that can be over-utilized.

Exercising on equipment that is not properly set-up. Whether on a bicycle or weight training machine, one of the most common errors is improper seat height.

Overtraining certain muscle groups leading to imbalance.

Poor form.

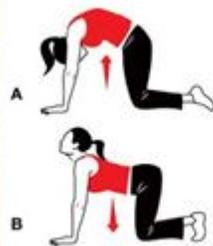


Warming up

A thorough warm up is known to reduce the risk of injury and should be an essential part of any training session.

Research suggests active/dynamic stretching is more effective than a static stretching program. An essential warm up should consist of 15 minutes gentle aerobic exercise and 10 minutes dynamic stretching.

General Dynamic Stretches for the lower back



WHY train with LBP?

Increases the flow of blood and nutrients to back structures which supports healing and can decrease the stiffness in the back that leads to pain.

Increased blood flow also helps to remove toxins which are associated with inflammation and pain.

An increased production of endorphins (The body's natural painkiller).

Endorphins can elevate mood and relieve symptoms of depression, a condition common in those with back pain or a back injury.

Maintain a healthy weight or lose weight

Improve the strength of muscles and joints that support the spine.

Increase flexibility and mobility.

Training with acute LBP.

Lumbar spine or radiating buttock/leg symptoms should not be reproduced or aggravated. Aims of exercise/training should be to improve mobility and reduce pain.

Your symptoms and the structures involved will affect which exercises you are able to perform. For example, if you have had a severe flare-up and your back is very painful, slow gentle movement may be all that is manageable. Less irritable back pain will allow for higher intensity training.



Water based exercise (Aqua jogging and swimming)

Provides a good cardiovascular workout.

The buoyancy ensures that minimal impact is taken through the lumbar spine.

Core muscles engaged and large global muscles used too.

Helps to improve range of motion around the trunk.

Land based aerobic exercise

Walking, jogging, running – improves circulation, synovial fluid production in joints, warms and loosens tight musculature, improves range of motion and uses functional movement that is required day to day. It can be done anywhere and is free!

Static bike – Cardiovascular benefits include increased heart rate and improved functional strength (ensure upright posture adopted).

Core Stability

Sound core stability enables the stabilisation of the spine during its various movements and functions, contributing to the prevention of lower back injuries.

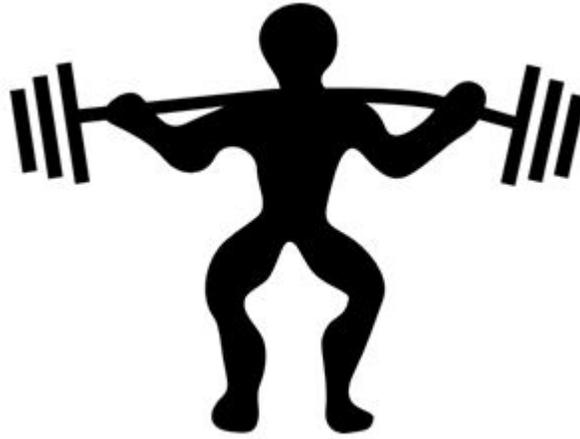
Good core stability supports correct alignment of your body. The core muscles help to maintain a good posture when exercising and at rest. Poor posture can contribute to back pain due to the stress on soft tissue structures.

(see our Core stability and Pilates advice sheet for exercises)



Strength Training with LBP

Strength training can be done very safely and precisely, particularly aided by machines. It usually involves less repetitive movements than aerobic exercise, reducing the risk of repetitive injuries. Benefits include improved muscle strength and stamina, improved posture (subsequently improved weight distribution through lumbar spine), increased bone density and improved sense of wellbeing.



Considerations for strength training with LBP

. *Slow Progressions*– Increase the weight or resistance of an exercise after the current weight becomes easy; and increase in very small increments. Weight training should also be performed only two to three days a week, not on consecutive days.

. *Stabilisation* – Initially, adopt positions that provide lots of support such as sitting on a bench or chair and lying down on a flat bench. Slowly progress to more unstable positions. Avoid positions where the lumbar spine is flexed and rotated.

. *One plane movements*- Many resistance machines provide excellent one-plane movements such as torso flexion and extension. Working in one plane reduces the amount of stabilisation required and reduces the load through the lumbar spine.

. *Aim towards functional movements*- Functional exercises are dynamic in nature and therefore more advanced than one-plane movements. Incorporating functional exercises into a weight training program may increase strength and stability of the lower back during everyday activities. Functional resistance exercises may resemble activities such as carrying grocery bags, lifting boxes and moving furniture and include exercises such as squats and lunges.

Guidelines for cooling down

5 to 10 minutes light aerobic exercise – decreases body temperature, removes waste products from the working muscles and reduces the risk of delayed onset of muscle soreness (DOMS)

5 to 10 minutes static stretching exercises – Static stretches are more appropriate to the cool down as they help muscles to relax, realign muscle fibres and re-establish their normal range of movement. These stretches should be held for approximately 30 seconds.