

Lower back pain can result from a multitude of factors, however is mainly attributed to a lack of physical activity leading to degeneration of the lumbar region (2, 4). The etiology of lower back pain can occur as a result of an acute load or fall, or chronically over time with repetition of poor lifting/loading technique.

Exercise has been recommended by the National Institute for Health and Excellence in the treatment and prevention of lower back pain (3). Improving spinal cord mobility, muscular strength, flexibility, and stability are all aims of a lower back pain rehabilitation program (1). However, what exercises can and can't you do with lower back pain?

Research recommends 30-60 minute sessions, twice per week, for a minimum of 8 weeks to see improvements in lumbar strength and back pain (5,6). Here is a simple program you can follow at home;

Deadbug 2x12

Lying on your back, bring your legs into table top position with 90 degrees in the hips and knees. Extend your arms directly in front of the face, into the air. Slowly lower your right leg first, straightening it fully so it hovers just above ground level. While lowering the leg, lower your left arm so it to hovers below ground level. Continue to alternate opposite hands and feet.

While completing the exercise, ensure the back is pressed firmly flat against the mat to prevent injury to the lower back. There should be no gaps between the floor and your spine.



Superman 2x12

Otherwise referred to as a bird dog, the superman targets the back extensor muscles as well as the glutes and abdominals for balance. In a four point kneeling with hands directly below your shoulders, raise your right arm up until it is horizontal. At the same time, slowly extend your left leg back until it is in a perfect line with the arm and leg so you only have two points of contact with the ground. Hold for 3 seconds at the top of the movement, then slowly lower both leg and arm to the floor ready to swap to the other side.

During the movement, think of pulling your belly button to your spine to engage the core muscles. Keep your back as flat as comfortable, avoiding excessive arches that may compromise back stability. Remember to breathe, and take it slow.



Prone Back Extension 2x5

This exercise strengthens your erector spinae, the muscles that run either side of the spine for overall strength and endurance. Lying face down on a mat, either place your hands by your side or behind your head. Slowly lift your chest off the floor while keeping your legs down on the mat. Hold for five seconds at the top, then slowly lower yourself back down.

This exercise can be progressed and regressed as needed. To make the exercise harder lift the legs as well, hold for longer at the top, or repeat for more repetitions. If this exercise proves too difficult, place feet under a sturdy immovable object such as a bench, or ask a trainer to hold your feet down.



Exercises to Avoid

Exercises that compromise back stability. Until your core muscles are strong enough to support the back, the best thing to do is allow adequate support during physical activity.

- Russian twist
- Sit ups
- Supine leg lifts
- Toe touches (standing)
- Bent over row
- Deadlift

Exercises to Choose

Core exercises where the back is supported by the floor or a wall, or exercises that strengthen the muscles along the back.

Cardio exercises for weight loss, as this may be an exacerbating factor for lower back pain.

- Recumbent bike may be more suitable, as the back rest allows for support and stability.

Machine based exercises with back supports. Recommended exercises (5):

- Leg extension
- Seated calf extension
- Seated leg curl

Pilates is a great way to tone the core and back muscles in a low intensity environment, and has been recommended by literature under supervision (Wells et.al, 2014). The RISE has four Pilates classes per week, with qualified instructors with you every step of the way. If working out in a group suits you, our Pilates is recommended to aid with your lower back pain. Letting the instructors know you have lower back pain will allow them to adjust the class to suit your individual needs, and adjust your technique to help protect the back and strengthen the muscles that need it the most.

If you prefer to work out solo, Bayswater Waves and The RISE have highly qualified personal trainers in our Health Clubs to assist with your lower back pain. We can assess your health and fitness in its current state, and create a personalized program to help improve your lower back pain. Alternatively, you can try our specialized injury programs, such as FMS. FMS is a screening tool to identify areas of weakness in the body, and see why you are experiencing lower back pain. From here, our fitness specialist can assist you in exercises to help limit pain and improve mobility and function. Our trainers are all Cert III and IV certified, with majority of staff also completing further education in the field so you can be rest assured you are in safe hands.

For further information, feel free to come in to our Health Club or call us on 92082415 to book a free* assessment and start your rehabilitation journey.

References

1. Akuthota, V., & Nadler, S.F. (2004). Core strengthening. *Archives of Physical Medicine and Rehabilitation*, 85, p.S86–S92.
2. Choi, G., Raiturker, P.P., Kim, M.J., Chung, D.J., Chae, Y.S., & Lee, S.H. (2005). The effect of early isolated lumbar extension exercise program for patients with herniated disc undergoing lumbar discectomy. *Neurosurgery*, 57 (4), p.764–772.
3. De Campos, T.F. (2017). Low back pain and sciatica in over 16s: assessment and management NICE guidelines. *Journal of Physiotherapy*, 63(1), p.120. DOI: 10.1016/j.jphys.2017.02.012
4. Puolakka, K., Ylinen, J., Neva, M.H., Kautiainen, H., & Häkkinen, A. (2008). Risk factors for back pain-related loss of working time after surgery for lumbar disc herniation: A 5-year follow-up study. *European Spine Journal*, 17(3), p.386–392
5. Soonyoung, K. & Kyoungkyu, J. (2017). Effects of a complex intervention exercise program on lumbar extension strength and stability in female patients with lower back pain. *Iran Journal of Public Health*, 46(6), p.854-855.
6. Wells, C., Kolt, G.S., Marshall, P., & Bialocerkowski, A. (2014). The definition and application of pilates exercise to treat people with chronic lower back pain: a Delphi survey of Australian physical therapists. *Physical Therapy*, 94(6), p.792-805. DOI: 10.2522/ptj.20130030