

## Back Pain

### Natural History

There are many causes and manifestations of back pain including but not limited to:

- a strain of a muscle or ligament
- a nerve that is pinched between two vertebrae
- a herniated disc of the vertebrae

Back pain can occur in many different ways: lifting heavy objects, strenuous exercise, falling down, or even violent sneezing or coughing. Being overweight or having arthritis of the spine can exacerbate lower back pain.

### What can I do for my pain?

The below exercises are intended to strengthen your core abdominal muscles and reduce back pain by correcting muscle imbalances. If your lower back pain persists, interrupts your everyday life, and is not responsive to conservative treatments (rest, anti-inflammatory medications, physical therapy exercises), you may want to make an appointment with a spine specialist who can prescribe more aggressive solutions.

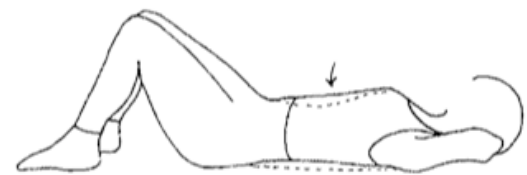
*Exercises taken from The Sports Medicine Patient Advisor*

**1) Cat and Camel:** get down on your hands and knees. Let your stomach sag, allowing your back to curve downward (camel). Hold this position for 5 seconds, then arch your back (cat). Repeat 5 times, do 2 sets.



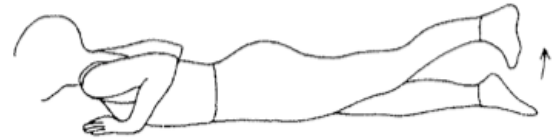
Cat and camel

**2) Pelvic Tilt:** Lie on your back with your knees bent and your feet flat on the floor. Tighten your stomach muscles to flatten your lower back against the floor. Hold for 5 seconds, and then relax. Repeat 10 times, do 3 sets.



Pelvic tilt

**3) Prone Hip Extension:** Lie on your stomach with your legs straight out behind you. Tighten your buttock muscles and lift your right leg off the floor, keeping your knee straight. Hold this position for 5 seconds, then lower your leg and relax. Repeat with left leg. Repeat 10 times on each leg.



Prone hip extension

**4) Single Knee to Chest:** Do a pelvic tilt (#2) and pull one knee up to your chest. Hold for 5 seconds then return to starting position. Alternate sides and repeat 10-20 times.



Single knee to chest

**5) Partial Curl:** Lie on your back with your knees bent and your feet flat on the floor. Tighten your stomach muscles and flatten your back against the floor. Tuck your chin to your chest. With your hands stretched out in front of you, curl your upper body forward until your shoulders lift off from the floor. Hold this position for 3 seconds. Don't hold your breath. Repeat 10 times.



Partial curl

**6) Piriformis Stretch:** Lie on your back and pull one knee up and across your trunk so you feel a comfortable stretch in the top buttocks and back. Hold for 5-15 seconds and repeat 5-10 times on each side.



Piriformis stretch