

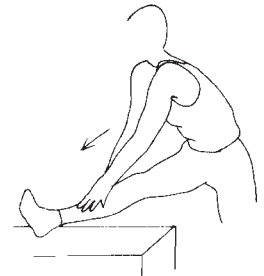
# DUKE ORTHOPAEDICS OF RALEIGH

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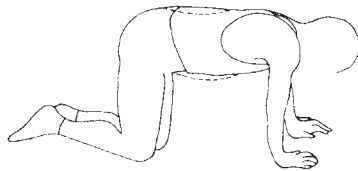
## Low Back Pain Rehabilitation Exercises

The goal of these exercises is to strengthen your abdominal muscles, stretch your lower back, hip flexors, and hamstrings. These exercises may help reduce lower back pain by correcting muscle imbalances in strength and flexibility of the trunk and hips.

1. Hamstring stretch: Place the heel of one leg on a stool about 15 inches high. Lean forward, bending at the hips until you feel a mild stretch in the back of your thigh. Make sure you do not roll your shoulders and bend at the waist when doing this or you will stretch your lower back instead. Hold the stretch 30 to 60 seconds. Do the same exercise with the other leg. Repeat 3 times.



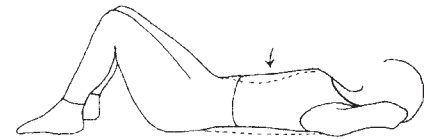
Hamstring stretch



Cat and camel

2. Cat and camel: Get down on your hands and knees. Let your stomach sag, allowing your back to curve downward. Hold this position for 5 seconds, then arch your back. Repeat 10 times. Do 2 sets.

3. 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, then relax. Repeat 10 times. Do 3 sets.



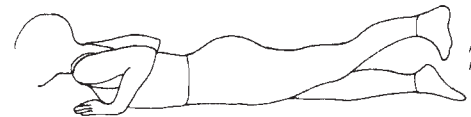
Pelvic tilt

4. 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 clear the floor. Hold this position for 3 seconds. Don't hold your breath. It helps to breathe out as you lift your shoulders up. Relax. Repeat 10 times. Build to 3 sets of 10. To challenge yourself, clasp your hands behind your head and keep your elbows out to the side.



Partial curl

5. 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 the same with your left leg. Hold 5 seconds and then lower the leg and relax. Repeat 10 times on each side. Build up to 3 sets of 10.



Prone hip extension

6. Single knee to chest: Now do a pelvic tilt and pull one knee up to your chest. Hold for 5 seconds and return to the starting position. Alternate sides, and repeat it 10-20 times.



Single knee to chest

## Low Back Pain

Pain is the best way to judge the pace you should set in increasing your activity and exercise. Minor discomfort, stiffness, soreness, and mild aches need not interfere with activity. However, limit your activities temporarily if:

- Your symptoms return.
- The pain increases when you are more active.
- The pain increases within 24 hours after a new or higher level of activity.

### ***When can I return to my sport or activity?***

The goal of rehabilitation is to return you to your sport or activity as soon as is safely possible. If you return too soon you may worsen your injury, which could lead to permanent damage. Everyone recovers from injury at a different rate. Return to your sport will be determined by how soon your back recovers, not by how many days or weeks it has been since your injury occurred. In general, the longer you have symptoms before you start treatment, the longer it will take to get better.

It is important that you have fully recovered from your low back pain before you return to your sport or any strenuous activity. You must

be able to have the same range of motion that you had before your injury. You must be able to run, jump and twist without pain.

### ***What can I do to help prevent low back pain?***

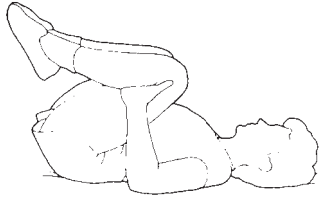
You can reduce the strain on your back by doing the following:

- Don't push with your arms when you move a heavy object. Turn around and push backwards so the strain is taken by your legs.
  - Whenever you sit, sit in a straight-backed chair and hold your spine against the back of the chair.
  - Bend your knees and hips and keep your back straight when you lift a heavy object.
  - Avoid lifting heavy objects higher than your waist.
  - Hold packages you carry close to your body, with your arms bent.
  - Use a footrest for one foot when you stand or sit in one spot for a long time. This keeps your back straight.
  - Bend your knees when you bend over.
  - Sit close to the pedals when you drive and use your seat belt and a hard backrest or pillow.
- Lie on your side with your knees bent when you sleep or rest. It may help to put a pillow between your knees.
  - Put a pillow under your knees when you sleep on your back.
  - Raise the foot of the bed 8 inches to discourage sleeping on your stomach unless you have other problems that require that you keep your head elevated.

To rest your back, hold each of these positions for 5 minutes or longer:

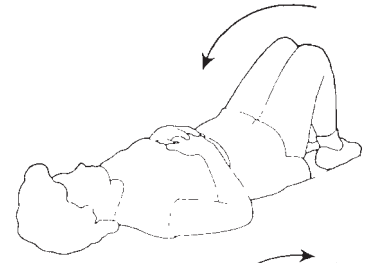
- Lie on your back, bend your knees, and put pillows under your knees.
- Lie on your back, put a pillow under your neck, bend your knees to a 90-degree angle, and put your lower legs and feet on a chair.
- Lie on your back, bend your knees, and bring one knee up to your chest and hold it there. Repeat with the other knee, then bring both knees to your chest. When holding your knee to your chest, grab your thigh rather than your lower leg to avoid overflexing your knee.

## Low Back Pain Rehabilitation Exercises

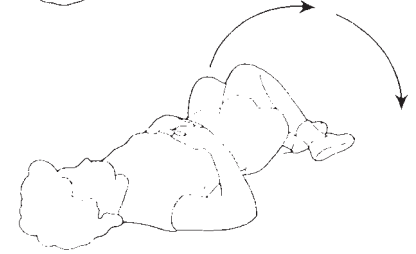


**Double knee to chest**

7. Double knee to chest: Again, do a pelvic tilt and now pull both knees up to your chest. Hold for 5 seconds and repeat it 10–20 times. You may need to lift one leg at a time until your stomach muscles get stronger.



8. Lower trunk rotation: Do a pelvic tilt. Keeping shoulders down flat, gently rotate the knees to one side, then the other, as far as you can. Repeat 10–20 times.



**Lower trunk rotation**



**Piriformis stretch**

9. Piriformis stretch: Lie on your back as shown. 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.

You can modify this exercise by reaching for your knee with the opposite hand and keeping your shoulders flat on the floor. Pull your knee over as far as you can allowing your trunk to rotate.