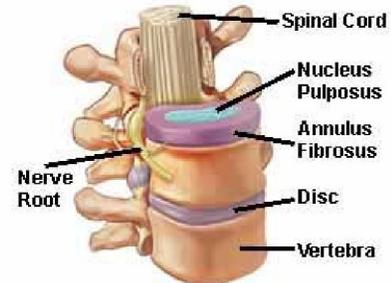


LUMBAR DISC PROTRUSION

In the lumbar spine, all of the vertebrae (bones) are separated by a structure called the intervertebral disc. Each disc consists of a gel-like center (nucleus pulposus) and a tough outer layer (annulus fibrosus) . These features are important in the disc's role as a spacer and absorber of forces.



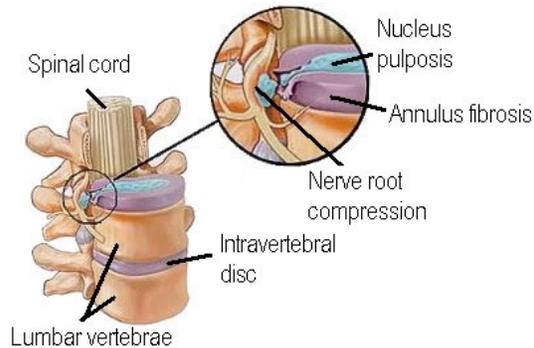
INJURY DESCRIPTION

A disc protrusion is an abnormality of the intervertebral disc in which the nucleus pulposus bulges out through the annulus fibrosus. This exerts pressure on the spinal ligaments, or on the spinal nerves which causes pain. As these nerves supply your lower extremities, radiating pain and symptoms in your legs is possible. The common cause of lumbar disc protrusions are lifting a heavy object in a bent forward and rotated position, however it can be caused by even bending over to unplug a cord from the wall.

Generally, a lumbar disc protrusion is characterized by a sudden onset of pain, followed by an inability to straighten up fully. A person with a disc protrusion will stand in a slightly flexed position, often shifted to one side. Pain can be in the back, buttock or down the leg. Location and intensity of pain can vary with posture, however often sitting increases discomfort. You are more prone to this type of injury if you are under 50 years of age, sit or stand in a poor posture for long periods, work with poor lumbar biomechanics, or lift heavy objects. Most of these

A rare more serious injury is a disc herniation, which is caused by the nucleus pulposus rupturing material around the spinal nerve. These often require surgery to correct.

injuries recover with conservative management.



TREATMENT

The primary goals of treatment of a disc protusion include decreasing pain, avoiding further damage, and regaining spinal range of motion and core stability strength. After a thorough evaluation, your physiotherapist will use modalities to provide some pain control. Treatment will also include mobilizations and exercise to get you back moving again. As well, traction may be used in an effort to reduce any pressure by the disc on a spinal nerve. Finally, functional training and strengthening is involved to get you back to your specific activities. To prevent further damage the following precautions should be taken while recovering:

- No sitting for more than 30 minutes at a time
- Avoiding a forward flexed and rotated position in your activities
- No heavy lifting.
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Your physiotherapist will tell you when it is safe to return to work if you are off. Occasionally your physician may give you medication to help with the pain and inflammation. Further imaging such as CT scans or an MRI may be required if the injury hasn't resolved in 4-6 weeks.

PREVENTION

As with any injury, it is better to prevent it in the first place. Preventing spinal injuries is quite simple actually. Having good range of motion of your spine and good core stability and hip and back strength make you less susceptible to low back injuries. People who are overweight and smoke have a significantly higher risk of back injuries. Being aware of proper lifting mechanics as well as getting help with heavy objects also prevents disc protrusions. Think about your posture whenever you need to be in a particular position for a long time (eg. Working at the computer). Finally, if you do injure your back and it doesn't resolve in a couple of days, consult a physiotherapist to get an assessment.