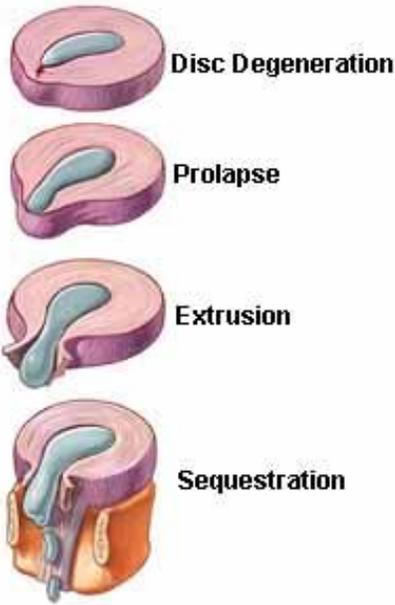


LUMBAR DISC LESION



What is a Lumbar Disc?

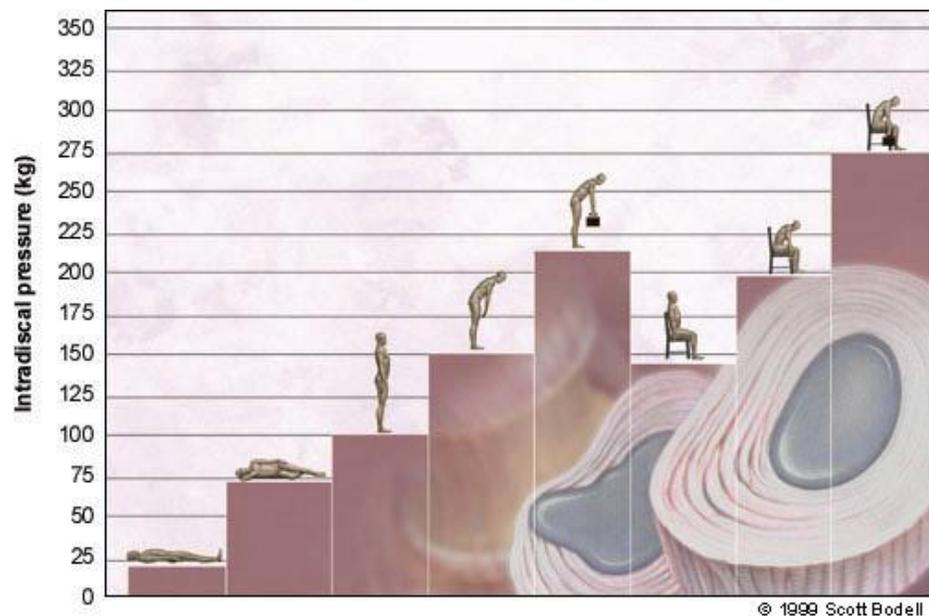
The intervertebral disc attaches the vertebrae of the spine, it has an outer casing of pliable cartilage and a thick gelatinous centre which enables it to provide flexibility, absorption and distribution of the loads applied to the spinal column.

What is a lumbar disc lesion?

With aging, the disc undergoes significant changes in volume and shape as well as in biochemical composition. Lumbar disc lesions are believed to result from degeneration that leads to a weakening of the outer casing, leaving the disc susceptible to bulging and tearing.

Mechanism of Injury

Most commonly in those whose work involves prolonged sitting or prolonged / repeated flexed positions (leaning forwards). Excessive lifting and poor posture, particularly in sitting and traumatic injury can also cause this problem. This is because the disc is weakest at its' rear aspect and flexion creates a strong rearward pressure pushing the disc toward the spinal nerves. The diagram adjacent clearly indicates the necessity for good posture in maintaining a healthy disc.



What are the symptoms of a disc lesion?

- You may experience pain in the back which may also radiate symptoms into the buttocks or legs including pins and needles, pain, numbness, weakness and altered sensation
- Mobility will be limited and painful generally bending forward will be the most painful movement.
- You may experience an inability to straighten the spine and have a fixed abnormal posture

What will Physiotherapy consist of?

When lumbar discs become inflamed the muscles which run parallel to the spine contract or go into spasm as a protective mechanism. It is therefore important for your therapist to relax these muscles in order to correct abnormal curvature of the spine. Your therapist will also need to reduce the inflammation within your spine and prevent the condition from occurring in the future. This can be achieved with:

Massage encompassing a variety of techniques and is given with sufficient pressure through the superficial tissue to reach the deep lying structures. It is used to increase blood flow, decrease swelling, reduce muscle spasm and promote normal tissue repair.

Mobilisation is a manual technique where the joint and soft tissues are gently moved by the physiotherapist to restore normal range, lubricate joint surfaces, and relieve pain.

Manipulation is a high speed, short movement thrust given at the end of available range. It is used to break down adhesions, remove a blockage within a joint and restore full painless movement. A click or noise may be experienced during this treatment

Ultrasonic Therapy transmits sound waves through the tissues stimulating the body's chemical reactions and therefore healing process, just as shaking a test tube in the laboratory speeds up a chemical reaction. It reduces tissue spasm, accelerates the healing process and results in pain relief.

Interferential Therapy introduces a small electrical current into the tissues and can be used at varying frequencies for differing treatment effects. E.g. pain relief, muscle or nerve stimulation, promoting blood flow and reducing swelling/inflammation.

Exercise Programmes encompassing a wide range of techniques to stretch and strengthen muscles, lengthen tissues, improve postural alignment, develop co-ordination and balance.

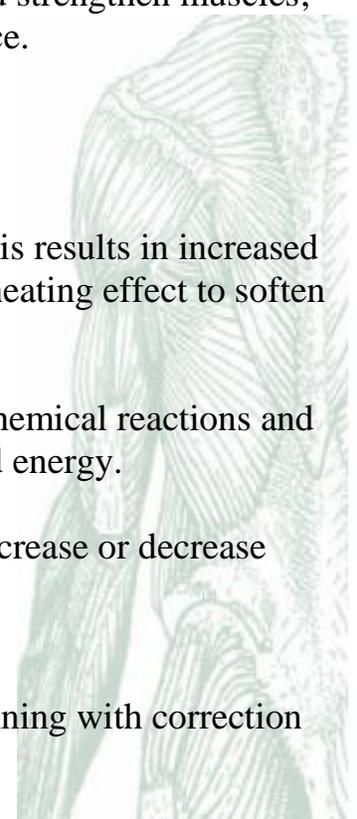
Other treatments that could be used

Short Wave Diathermy emits electromagnetic waves deep into the tissues. This results in increased blood flow to the area to promote healing, gives pain relief and can produce a heating effect to soften the tissues in preparation for mobilisation/manipulation.

Laser Therapy emits beams of light into the tissues of the body, stimulating chemical reactions and having a similar effect to ultrasound though using light energy instead of sound energy.

Acupuncture is an oriental technique of introducing needles into the skin to increase or decrease energy flow to promote pain relief and healing.

Podiatry an analysis of the foot mechanics and structure during walking or running with correction as appropriate.



What can you do to help your condition?

Analgesia / Anti-inflammatory medication– In consultation with your GP or Pharmacist these types of medication may provide significant pain relief.

Heat Packs- The application of a hot pack to the lower back may be beneficial in helping the muscles to relax, promote blood flow to the area and provide pain relief

Posture – good posture enables the muscles of the spine to act as a supporting structure and decreases the strain on the joints of the spine.

During the very acute stage of the condition lying down flat reduces the strain put through the disc. It is essential that you avoid sitting as much as possible as this puts great strain on the disc and it is much easier to slouch and adopt poor posture in sitting than in standing, walking or lying.

Following the acute stage it is recommended to keep moving regularly whilst paying attention to good posture.

Ergonomics - ensure that all your seating is encouraging you to attain good posture and your mattress is supporting your spine adequately.

Lumbar supports- **MAY** provide some benefit but should only be used under the guidance of your therapist

Exercise Programme - N.B. Exercises may cause discomfort but should not cause pain so please consult with your therapist if you have any concerns.



Starting Position: Lie flat on your stomach on a mat with your hands in a press up position

Action: Push up slowly keeping your hips firmly down and stay in this position for about 5 seconds making sure that you relax your low back completely. Repeat 10 times and do 3-6 times daily

Starting Position: Lie on your back on a table or firm surface. Both knees bent feet flat on the surface.

Action: Cross your arms over your chest. Turn your head (trunk) to the right as you turn both knees to the left. Allow your knees to relax and go down without forcing. Bring knees back up, head to centre, reverse directions. Repeat 10 times and do 3-6 times daily





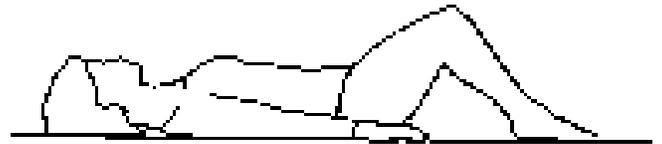
Starting Position: Lie on your back on a firm surface. Knees bent and feet flat on the table. Flatten your back to the floor by pulling your abdominal muscles up and in.



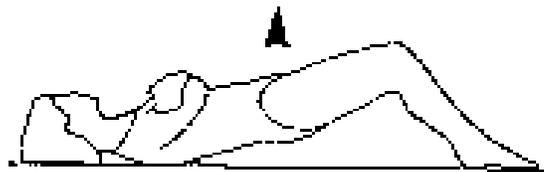
Action: Bring one knee toward your chest. Hold this position for 30 seconds. Lower your leg to the starting position. Then repeat on opposite knee.

Starting Position: Lie on your back on a table or firm surface. Your feet are flat on the surface and the knees are bent.

Action: Push the small of your back into the floor by pulling the lower abdominal muscles up and in. Hold your back flat while breathing easily in and out. Hold for five seconds. Do not hold breath.



Starting Position: Lie on your back on a table or flat surface. Your feet are flat on the surface and your knees are bent. Keep your legs together. Cross your arms over your chest.



Action: Tilt your pelvis and push your low back to the floor as in the previous exercise, then slowly lift your buttocks off the floor as far as possible without straining. Maintain this position for 5 seconds. Lower your buttocks to the floor.

Starting Position: Kneel down on the floor in the "all-four's" position. Keep your head straight so that the gaze of your eyes is toward the floor.

Action: Slowly allow your trunk to sag as far as you can so that your back is arched. Do not pull it down but let it relax as you lift your face towards the ceiling. Then round your back up at the waist as far as you can by contracting your lower abdominal muscles as you lower the top of your head toward the floor. All motion should be initiated from your lower back.



What if physiotherapy does not help or resolve my condition?

It is very rare that physiotherapy does not give great benefit, in these cases an epidural injection may be appropriate and in very extreme cases surgery is a possible option. These options can be discussed with your therapist if appropriate.