

# DEGENERATIVE DISC DISEASE / DISCOPATHY

## Definition

Common lumbar pain can have many causes such as muscles, ligaments, joints and even psychological causes.

However, severe lower back pain with persistent sciatica radiating into the buttocks, hips, legs and feet is often caused by degenerative disc disease, i.e. progressive degeneration of one or more intervertebral discs.

## Evolution

Degenerative disc disease often takes the form of acute lumbar pain (lumbago), which occurs after an abrupt movement or strenuous effort. The attack naturally tends to clear up in a few days, sometime a few weeks. While these attacks remain isolated in most people, or at least spread out over time, in 5% of cases lumbago intensifies and flares up with smaller and smaller efforts, until it becomes permanent.

The disc splits allowing the soft nucleus pulposus to leak out, becomes dehydrated and is progressively compressed by the vertebrae above & below. Sometimes a fragment of the disc is expelled and compresses the nerve roots located just behind - this is a herniated disc phenomenon that is responsible for sciatic leg pain, among other problems.

In some cases, disc herniation appears suddenly when discopathy begins to develop, in people who have absolutely no history of back pain. While in other cases, the hernia appears after a long history of lower back pain.

It should also be noted that the more the disc is compressed, the tighter the space around the nerve roots and, therefore, simple ablation of a herniated disc (Rhizotomy) is sometimes not enough to free up the compressed nerve root.

## Symptoms

Degenerative disc disease can be responsible for two main types of symptoms: lumbago and pain in the legs (sciatica or cruralgia). In short, disc degeneration is responsible for lower back pain, and disc herniation (or protrusion) compromises nerve roots and triggers sciatica.

If a disc is tightly compressed, highly protruding or very inflamed, sciatica may arise even if there is no hernia. Low back pain related to lumbar disc disease corresponds to constrictive pain in the lower part of the back. Remaining seated or standing for long periods of time quickly becomes agonisingly difficult.

This pain is very proportional to effort and often forces the affected person to limit their sporting or professional activities. There is often pain and morning stiffness that require a warming-up period before performing everyday activities. The situation can get worse in certain people due to an increase in the frequency, duration and intensity of bouts of lumbar blockage. Persistent sciatica radiating from the back through the buttocks, hips, legs and feet which gets worse over time is also common.

The pain can become permanent, night and day. There is often significant impact on social and family life, which can leave the affected person with a feeling of failure and depression.

## — Diagnosis

Lumbar disc disease can be easily diagnosed with an MRI of the lumbar spine, which is the best examination for assessing the disc's condition.

X-rays of the entire spine are also important for spinal surgeons in order to gain an overall view of the back's shape, which can influence treatment decisions.

## — Principle of Surgical Treatment

Surgery for chronic lower back pain and / or sciatica should only be considered after medication can no longer control symptoms which become progressively worse.

Depending on the correlation between the symptoms and the anomalies observed on the lumbar MRI scan, the surgeon may or may not approve surgery. If there is no paralysis, surgery will never be mandatory but will be an additional treatment option. Like all other treatments, surgical treatment will have its own success and failure rate and its own risk-benefit ratio, which will be clearly explained by the surgeon to enable you to make your own choice as objectively as possible.

SpinePro, in conjunction with CCV Montpellier, offers Prodisc-L® disc replacement surgery as a permanent cure for degenerative disc disease. This procedure offers significant benefits compared to spinal fusion which are discussed at length on our website.

The principles behind the procedure are as follows:

- Resection of the diseased disc(s);
- Raising the disc space to where it was before pinching;
- Treatment of the compression on the nerve roots by resection of the hernia or the disc protrusion, as well as raising the disc and the foramens;
- Insertion of a Prodisc-L® implant into the intervertebral cavity, which rebalances the back by increasing lumbar curvature (lordosis) and minimises pressure on the other intact discs.

## — Surgical Technique

Lumbar disc replacement surgery is not performed via the back, like the majority of disc surgeries, but through a 5cm to 7cm incision in the abdomen to minimise the risk of nerve damage.

The procedure takes between 30 & 45 minutes.

Disc replacement is a demanding surgical technique, but it is also very respectful of the body's anatomy, which means minimal post-operative pain in the vast majority of cases.

## — Post Operative Recovery

A nurse will help you to get out of bed a few hours after the operation.

A physiotherapist will demonstrate how to move carefully during your recovery for activities such as bathing, how to get up, go to bed, bend down and pick up objects off the floor.

Two nights after the procedure, SpinePro escorts you to a local hotel for five days of convalescence. Nurses visit you daily to monitor & dress the wound and administer blood thinning & pain management medication.

Continuous bed rest is not required. You are encouraged to take accompanied short walks during your hotel stay.

## — Convalescence

Once back home in the UK, the ideal recovery combines rest in a comfortable position (in a semi-recumbent position with the back at a 45° incline, legs slightly bent at the knees), alternating several time a day with quiet walking on a flat surface, initially for 10-15 minutes and increasing up to an hour or two.

A SpinePro nurse will visit you daily for 10 days after you return home to monitor & dress the wound and administer blood thinning medication. Stitches are removed on the 10th day.

For the first week after your return, you should not return to your everyday activities (housework, grocery shopping, driving, carrying even light loads).

After two weeks you can return to normal activities progressively, listening to your body and any pain when exerting an effort, which you should take as your limit.

Pain and transient post-operative symptoms such as tingling sensations are often the consequence of excessive activity and tend to disappear after resting.

It is important not to attempt too much exercise too soon.

Rehabilitation will start with gentle exercises to loosen up your body and to strengthen core muscles and lower limbs. You can go back to work four weeks after a Prodisc-L® disc replacement and gently resume sporting activities after six months.

Over the long term, there are no particular contraindications and you will be able to lead an active life and practice sports & strenuous exercise without issue.

Images of our surgical techniques?  
Visit the degenerative disc disease page on our website.

