INFORMATION SHEET

DISC HERNIATION

Definition and cause

We speak of disc herniation when a fragment of an intervertebral disc is expelled outside the disc. This fragment is expelled through one or more cracks in the disc and therefore this cannot happen to a perfectly healthy disc.

Herniation differs from disc protrusion, which corresponds to a bulge in the disc that appears progressively as the disc sags.

Cracking, herniation and disc protrusion are all consequences of **discopathy or degenerative disc disease** that is very common in the general population, which explains the very high number of people with disc herniation.

Evolution

Disc herniation is not necessarily serious or painful. Disc herniation is commonly seen in people who never complain about their back. A herniated disc becomes painful when it **compresses a nerve root** located just behind the disc in the spinal cord.

It can evolve naturally toward the disappearance of symptoms, even if the hernia usually does not disappear. It can also evolve toward more serious pain and sometimes may even become complicated with paralysis. In a large number of patients it becomes cyclical, alternating between painful periods and remission.

Symptoms

Symptoms usually appear after an ordinary effort, with severe pain in the lumbar region, followed a few minutes to a few days later by the appearance of **pain in one of the legs**.

This pain in the legs corresponds to compression of a nerve root by the hernia, running behind the disc and going down into the leg on a highly precise path. We speak of **sciatica** when the compressed roots are the ones that run down the back of the leg and **cruralgia** when they run down the front of the thigh. Sometimes the pain runs all the way down to the toes, and sometime it is only felt in the buttock, thigh or calf.

Alongside the pain, there may be **tingling**, **anesthesia** and **even paralysis**, i.e. losses of strength, often local (in the toes, feet or knees). When these symptoms occur, the patient should see a physician urgently because they mean that serious lesions on the nerve root are setting in, which are potentially definitive.

It should be understood that disc herniation almost always comes from a diseased disc: this is discopathy. **Pain from sciatica and pain from cruralgia**, caused by disc herniation compressing the nerve root, must be differentiated from **lumbar pain** (lumbago or low back pain), caused by disc disease (discopathy).

Examinations

Disc herniation can be identified well by a scan or MRI. One of these two examinations must be performed before seeking out a surgeon's opinion.



Treatment possibilities

If there is no paralysis or urinary problem, there is never an emergency reason to operate on a herniated disc. The medical treatment to be applied will combine rest, which is crucial, pain relief medication, anti-inflammatories, and sometimes massages or infiltrations.

The purpose of this treatment is **to relieve inflammation around the compressed nerve root** and to wait and see if the symptoms heal naturally. After a few weeks, the physician and the patient will meet to get an idea of the treatment's effectiveness and the chances of spontaneous healing of the flare-up.

Principle of surgical treatment

If the situation does not evolve in a satisfactory manner, and depending on the seriousness of the symptoms presented by the patient, how long the situation has been developing and the morphology of the disc herniation, the surgeon will decide whether **surgery is needed to decompress the nerve root** in question by removing the hernia.

Simple ablation of the expelled disc fragment by microsurgery is usually sufficient. If there is a relapse of the hernia or if the hernia occurs on a disc that is already in an advanced state of wear, the entire disc will have to be removed and replaced with an implant.

In this case, patients usually have a history of back pain, lumbago or repeated sciatica flare-ups.

Surgery

Microsurgery is used for surgical ablation of the herniated disc, using a tubular retractor that helps to **preserve back muscles**. Once the hernia has been removed, the decompressed nerve returns to its place.

Clinical post-operative care:

You can first get out of bed a few hours after the operation. The physiotherapist teaches you the gestures that you will need to apply during your convalescence: how to get up, go to bed, bend down, pick up objects off the floor, personal hygiene. Starting on the first day, you will recover a certain degree of autonomy in performing these everyday gestures. You can go home on the day of the operation, as an outpatient, or the next morning. Prescriptions are given when leaving, including bandages, pain medication and sick leave up until the check-up consultation.

Only an experienced practitioner can make a precise spinal pathology diagnosis. The practitioner's role is to determine whether a disc or spine anomaly discovered during an imaging exam is pathological in nature. They will then have to determine the risk and potential evolution involved, a key component in therapeutic decision-making. The diagnosis will make it possible to identify, from among these anomalies, those that are not responsible for the symptoms, that do not entail any risk and therefore do not require any particular treatment.



Convalescence

Once back home, the ideal pace of life combines rest in a confortable 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.

For the first few days, do not try to return to your everyday activities (housework, grocery shopping, driving, carrying even light loads). Then, starting in the 2nd or 3rd week, you will be allowed to return to these activities very progressively, listening to your body and any pain when exerting an effort, which you should take as your limit. Renewed pain during convalescence is often the consequence of excessive activity and will tend to disappear when at rest.

Physical therapy will begin after the 3rd week, starting with massages of scar tissue and painful or contracted areas in the spine. Once your body is prepared, **rehabilitation will start with movement** to loosen up your body and to strengthen the spinal cord and lower limbs. You can go back to work and sports activities starting in the 4th week, unless you are having any particular pain.

Over the long term, there are no particular contraindications and you will be able to lead an **active life and practice sports perfectly normally**.

Images of our surgical techniques? Visit the <u>Disc Herniation</u> page on our website.



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