



Lumbago :

The vertebral column (or rachis) is made up of vertebrae, layered and separated by discs. In the middle of the vertebrae through the vertebral canal, is the spinal cord, up to the height of the second lumbar vertebra (L2). Beyond that, the canal only contains a collection of nerve fibres called “the horse-tail”.

These nerve fibres leave the spinal canal in the form of "roots" by openings (foramen or linked openings) situated laterally at the height of the intervertebral discs.

A normal intervertebral disc is a flattened structure joining two vertebrae acting as a shock absorber and stabilises the column. It is composed of a central mass of pulpy tissue (nucleus pulposus) and of a fibrous peripheral ring (anulus).

Discal ageing often begins after a period of dehydration, by cracks, or tears in the fibrous ring. The nucleus can then, along these cracks, bulge into the thickness of the ring. This can result in acute or chronic lumbar pain. If it bulges even further through the ring, the nucleus can jut out in the posterior face of the disc forming a herniated disc.

One or more nerve roots close to the disc can become compressed, ‘stuck’. ‘Sciatic’ symptoms result when the pain is situated at the back of the thigh, or ‘crural’ symptoms when the pain is situated at the front of the thigh. Sometimes a herniated disc entails chronic pain only in the lower back, especially when it is located medially or centrally.

Pains in the low lumbar vertebrae or lumbago can also arise without a slipped disc and can be related to the disc’s ageing; this can express itself by repeated abnormal and excessive movements at the area of the blockage in the back, which we call ‘instability’, or then again by a ‘pinching’ or wearing of the disc leading to the vertebrae fusing at the source of the inflammation, which we call ‘discopathy’.

In other cases, this discopathy can fuse the vertebrae in an abnormal position, the beginning of a global imbalance of the column requiring the muscles at the origin of the chronic pain to be overworked.

Progression & conservative treatments

Medical treatments for lower back pain and chronic discopathies linked to discal ageing (unstability, discopathy) are based on relative rest, anti-inflammatories, muscle relaxants, analgesic (especially in case of acute crisis) and immobilisation by corset. Spinal injections of corticosteroids may then be proposed if the initial medical treatment doesn’t provide sufficient relief.

Treatment of chronic pain is based on prevention and is associated with a healthy lifestyle (physical activity, weight control, smoking cessation) and good daily management of body mechanics (physiotherapy, back education), with an adapted work station, or even professional redirection.

Spinal surgery is only considered:

- If the medical treatment, having been adapted to the patient's needs and put into place during a sufficient period of time is ineffective;
- If 'alternative solutions' that have been tried are unsuccessful: dieting when overweight, wearing a corset, appropriate rehabilitation, 'stress' training, treatment of an associated depressive state, adaptation to the work station when possible;
- If we have been able to identify the disc(s) responsible for the pain as precisely as possible (using a variety of investigative methods if necessary): Dynamic x-ray, ultrasound scan, MRI scan, myelography, posterior joint injections, discography;
- If there is an associated deformity which might compromise the balance of the spine (this having a tendency to lead to an excessive bending of the trunk forward or on one side);

In spite of this, lower back pain rarely needs surgical treatment.

It has been proven:

- that some patients can be subject to discopathy without having any pain, which explains that a discopathy or other instability discovered on x-rays scans or MRI, in the absence of any symptoms needn't lead to surgery;
- that some patients can be suffering from lower back pain in relation to a discopathy and be cured in time (spontaneous stabilisation in the case of instability, spontaneous welding of a disc with significant discal 'pinching', spontaneous 'healing' of an inflamed disc).

When is a discopathy operated on?

- The factor which determines whether a surgical intervention is necessary is the intolerance of the patient to his/her situation, following discussion between the patient and his/her surgeon;
- However there is nearly never any emergency to operate unless, in addition to chronic lumbago, one or several nerves are stuck causing pains in the lower limbs, or a more severe paralysis, or if a deformation of the trunk tends to worsen.

Goals and expected benefits

Lumbar arthrodesis which consists of blocking and welding one or several vertebrae together, allows the pain to diminish by stopping abnormal disc movements ('instability'), the suppression of pain generation factors (disc, joints, ligaments), putting the spine back to a satisfactory level of stability.

Associated with this intervention is 'liberation' (unblocking one or more compressed nerve roots) with the aim of eradicating the sciatica, the cruralgia or difficulty walking, or to recuperate from a paralysis.

Flexible stabilisation consists of reducing abnormal painful movement of the disc(s) without being blocked just like an arthrodesis would do; the goal is to encourage the 'sick' disc to heal. This stabilisation may be obtained by interspinous implants situated to the rear of the spine between 2 vertebrae or even by screws linked with rods or artificial 'flexible' ligaments.

A prosthetic disc involves replacing the 'sick' disc with an artificial one which allows some mobility, this being placed to the front of the spine (abdominal scar) between 2 vertebrae.

It must however be understood that no intervention will return a body part 'to new', and no result is ever guaranteed 100%.

This information sheet was created and supplied to you as a teaching aid to support and/or complement the oral information provided by the surgeon during the consultations preceding the decision to have surgery; oral information alone can be adapted according to the patient's individual needs and at his/her request.

This sheet answers frequently asked questions and constitutes the main points of the information provided.