

ADULT ONSET SCOLIOSIS

Definition and cause

Degenerative scoliosis is a disease affecting **progressive wear** on the point joining the vertebrae together (**discs, ligaments and joints**). The affliction often begins in the lumbar region, but can sometimes move all the way up to the top of the back. The vertebrae will tend to slip in relation to each other, leading both to an **S-shaped deformation of the spine** and to **difficulty in straightening** it out fully in the standing position. This pathology is quite often **associated with lumbar spinal stenosis**.

Evolution

This is a spinal aging pathology whose onset begins in the second half of life, slowly and progressively worsening with symptoms that become invalidating in elderly people.

Symptoms

Degenerative scoliosis is often discovered during a lumbar spinal stenosis examination (cf) and shares some of the same symptoms. It is characteristically accompanied by low back pain (**lumbar pain**):

- Pain in the lower back that increases little by little when walking
- Feeling of exhaustion in the back arising during increasingly short walks.
- Difficulty in standing up totally straight when standing or walking.

- Sometimes there is the feeling that things are being **blocked in the lumbar region** during certain movements, especially when being rotated.

Examinations

Degenerative scoliosis can be easily diagnosed on **large X-rays covering the entire spinal cord**. The risk lies in only looking at cross-sections or small regions of the spine, without any overall view. A **lumbar spine scan** indicates just how much wear there is on the disc and the progression in the development of osteoarthritis, looking for any compression on the nerve roots (lumbar spinal stenosis). An **MRI** will show more details of certain particularly painful disc damage (inflammatory disc disease) in order to better target treatment.



Treatment possibilities

Maintaining the muscles of the abdominal wall and the paraspinal muscles is indispensable for the prevention of spinal deformations and for care of back pain. When pain appears, the medical treatment combines **analgesics and anti-inflammatory** medication, and sometimes massages or **infiltrations**.

Principle of surgical treatment

As always, the indications for surgical treatment must be determined on a case-by-case basis. The purpose of the surgery here is threefold:

- Neutralizing movement in arthritic areas (arthrodesis) to calm pain that is often lumbar in origin,
- Strengthening and rebalancing the spine to reduce muscle tension, the source of pain and exhaustion when walking,
- Free up the **compressed nerve roots** if there is associated lumbar spinal stenosis, for lasting sciatica treatment and to retrieve strength in the legs.

Surgery

The surgeon will have to define a surgical strategy that will provide the patient with a maximum guaranteed results for an act that is as easy to handle as possible. In cases of degenerative scoliosis, the risk is one of treating the nerve root compression alone, without taking into account the overall deformation of the spine, which is the source of all the other symptoms. The surgery will therefore have to be performed in 1 or 2 successive operations, depending on the case. The spine will have to be stabilized with metal implants (internal fixation) that will be inserted either through the back or through the abdomen; they have a twofold purpose of straightening the spine and blocking certain pain-causing movements (arthrodesis). In cases of lumbar spinal stenosis, one or more laminectomies may also be required. Security in the operating room during surgery is optimized by monitoring the spinal cord in cases of major spinal deformation, and by a vascular surgeon in cases where a surgical act via the abdomen is required.

Convalescence period

A 3-week stay at a rehabilitation center is often required upon leaving the clinic. Transfer will be by ambulance. Multidisciplinary care will be given (rehabilitation, pain management, physiotherapy, ergotherapy). The purpose of the stay is to monitor bandages, manage pain, attend back school to learn gestures adapted to everyday life and regain sufficient autonomy to return home. The total convalescence period will take at least 3 to 6 months following the surgery. Depending on the severity of the symptoms before surgery, this period may be extended. The corset should be worn during the day for the first 3 months. Convalescence does not mean bed rest. Making efforts, carrying loads and traveling by car should be limited during this period. Walking is often helpful. Renewed pain during convalescence is often the consequence of excessive activity and will tend to disappear when at rest.



Clinical post-operative care:

You can first get out of bed the day 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**. A corset brace is necessary during the first weeks after surgery. This is a removable plastic corset adapted to you that is custom moulded. It should only be worn when moving; it is not necessary to wear the corset when lying down. The patient can leave the hospital **4 to 7 days** after the surgery, either returning home directly, or going to a **rehabilitation center** for a period of 2 to 3 weeks. Transfer will be by ambulance. Multidisciplinary care will be given (**rehabilitation, pain management, physiotherapy, ergotherapy**). The purpose of the stay is to monitor bandages, manage pain, attend back school to learn gestures adapted to everyday life and regain **sufficient autonomy to return home**. The total convalescence period will take at least **3 to 6 months** following the surgery. Depending on the severity of the symptoms before surgery, this period may be extended.

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.

Starting in the 2nd or 3rd month, you will be allowed to return very progressively to everyday activities, 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 be performed at home, 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. The corset can be abandoned after 3 months. You can then start **driving** again, carrying light loads and some **household activities**. Sports will have to wait until between the 3rd and 6th months, with endurance sports such as cycling, swimming and indoor sports.

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>Adult Onset Scoliosis</u> page on our website.