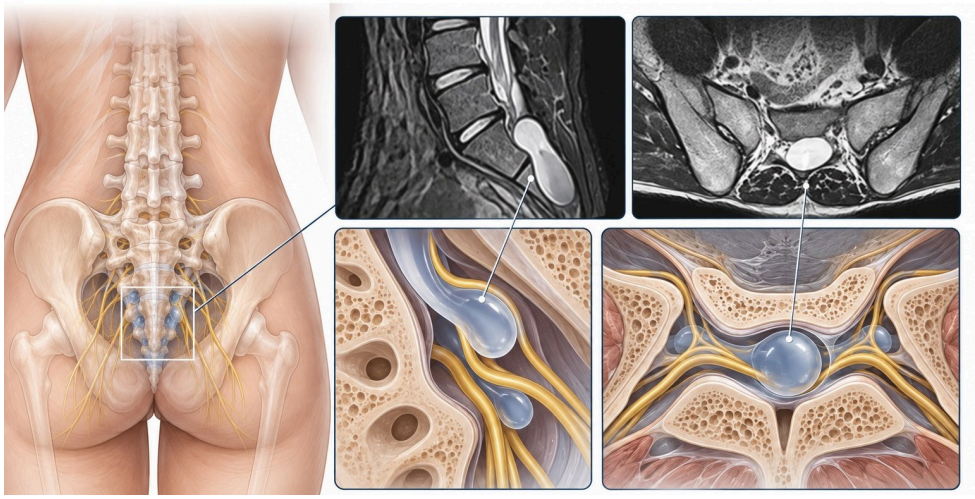
PATIENT INFORMATION

Tarlov Cyst

The condition · The operation · The risks



You have been offered surgery for one or more Tarlov cysts. This leaflet explains in simple terms **what this condition is, how the operation is carried out and what its risks are**. It supports your consultation but does not replace it: write down your questions and we will go through them together. Take your time before making a decision.

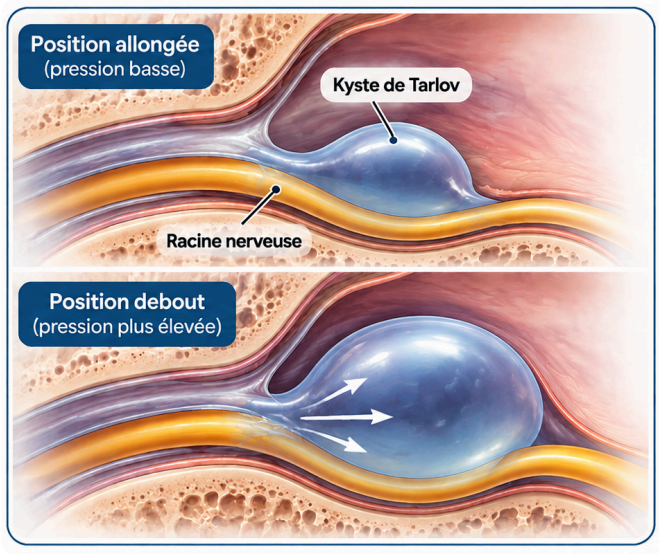
CHAPTER 1

1 What is a Tarlov cyst?

A Tarlov cyst is a **pouch filled with cerebrospinal fluid**, the fluid that surrounds the spinal cord and nerves. It forms on the sheath of a nerve root at the level of the **sacrum**, the bone at the bottom of the back, between the buttocks. The sacral nerves control sensation in the pelvis, buttocks and legs, as well as the bladder, bowel and sexual function.

Why does the cyst cause pain?

The cyst is connected to the nerve covering by a small opening, the **ostium**, which works like a **one-way valve**: fluid gets in easily but has trouble getting out. When you stand or sit, pressure rises in the lower back, the cyst swells and presses on the nerve fibres lining its wall. When you lie down, the pressure drops and the pain eases.



When you stand, fluid pressure makes the cyst swell.

Is it common?

Yes: about **4 people in 100** have a Tarlov cyst visible on MRI. In the vast majority of cases it causes no symptoms at all. Seeing one on an MRI therefore does not prove it is the cause of your pain: that is the whole purpose of the assessment.

Possible symptoms

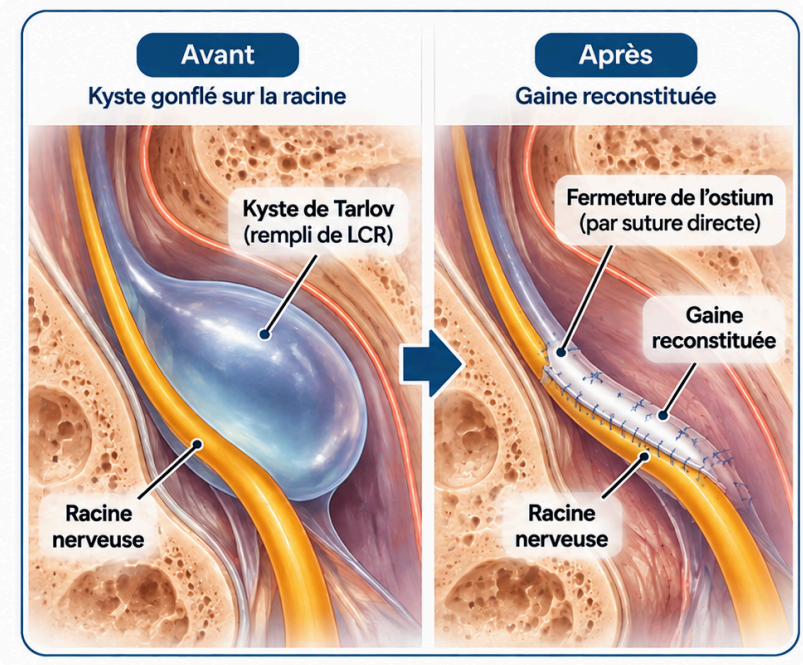
Type	What you may feel
Pain	Lower back, sacrum, tailbone, buttocks, perineum, sometimes one leg (sciatica)
Abnormal sensations	Burning, electric shocks, pins and needles, a feeling of "sitting on a ball"
Loss of function	Bladder, bowel or sexual problems, less often
The most telling sign	**Pain that gets worse when sitting or standing and eases when lying down.** These are also the patients in whom surgery gives the best results.

Before offering surgery, we check that non-surgical treatments have not been enough and that the cyst really is the cause of your symptoms: MRI, CT myelogram, sometimes bladder tests, and a test aspiration of the cyst performed by a radiologist. If the aspiration clearly relieves you for a few days, it is a strong argument for a **symptomatic cyst**.

CHAPTER 2

2 The operation

The aim of the operation is to close the valve that fills the cyst and give the nerve back a normal-sized sheath, **while preserving the nerve fibres**. The nerve is not removed.



Before: the swollen cyst compresses the nerve root. After: the ostium is closed and the sheath rebuilt around the nerve.

How the operation is carried out (about 2 hours)

Step	What happens
1	**General anaesthesia.** You lie face down. Electrodes placed on your arms and legs continuously monitor your nerve activity throughout the operation.
2	**Incision in the lower back**, vertical, over the sacrum.
3	**A small window is opened** in the back of the sacrum to reach the cyst.
4	**Under the operating microscope**, the cyst is opened and emptied; the nerve fibres in its wall are identified and preserved.
5	**The ostium is closed by direct suture**, then the excess wall is reduced, folded and stitched around the nerve to rebuild a normal sheath.
6	**The seal is reinforced** (biological glue, protective membrane) and the space left by the cyst is filled.
7	**Closure** of the muscles and skin, sometimes with a small drain.

After the operation

When	What happens
Day of surgery	About 1 hour in the recovery room, then back to your room
Day 0 to Day 2	**Strict bed rest for 48 hours**, lying flat, to let the closure heal and limit the risk of fluid leakage. Urinary catheter in place.
Day 2	First gradual getting up with the physiotherapist
Day 5 to Day 6	Discharge from hospital
10 days after discharge	**You must stay near the clinic**, the period when a fluid leak may appear
Up to 1 month	No prolonged sitting, no lifting more than 3 kg
About 2 months	Time off work, adjusted to your job and your recovery

Nerves recover slowly. Pain may persist, move or even increase in the first weeks: the nerve has been handled. This is not a sign of failure. The result is usually assessed between 6 and 12 months. The Neurosud practical guide details every step of your stay.

CHAPTER 3

3 Risks of the operation

Every operation carries risks, even when it goes well. In large published series, **a complication occurs in about 1 patient in 7 to 1 in 5** (14 to 21%). Most are temporary and heal without after-effects; serious and permanent complications are rare. On the other side, **about 3 to 4 patients in 5 are improved** by surgery (76 to 84% depending on the series), which does not always mean cured.

Risks common to all surgery

Risk	In practice
Anaesthesia	Its specific risks are explained by the anaesthetist at your consultation.
Infection (1 to 3%)	Usually superficial, at the scar: local care and antibiotics.
Haematoma	A collection of blood at the operation site, which usually resolves on its own.
Deep vein thrombosis, pulmonary embolism	Made more likely by bed rest. Prevented by moving the legs and, if needed, anticoagulant treatment.

Risks specific to Tarlov cyst surgery

Risk	Frequency	In practice
Cerebrospinal fluid leak	**The most common** **5 to 15%**	Headache when standing, clear fluid from the scar or swelling under it. Bed rest, sometimes aspiration or drainage; another operation is rarely needed.
Temporary nerve pain	**Common**	Irritation of the operated nerve in the first weeks. Medical treatment; it usually settles.
Sensory disturbance	**Uncommon**	Numbness of the buttocks, perineum or a leg, usually temporary.
Bladder, bowel or sexual problems	**Rare**	Usually temporary (a urinary catheter may be needed for a while); exceptionally lasting.
Meningitis	**Rare** **< 1 to 3%**	Inflammation of the nerve coverings: fever, headache, stiff neck. Urgent treatment.
Leg weakness	**Exceptional**	Damage to a motor fibre of the nerve.
Cyst recurrence	**≈ 8%**	The cyst fills up again (about 20% after CT-guided glue injection).

These risks are higher with **multiple or very large cysts**, or after **previous lower back surgery**. We will discuss them in light of your own situation.

Sources. French National Diagnosis and Care Protocol (PNDS) "Tarlov cysts", C-MAVEM reference centre, AP-HP, 2021 · Sharma M et al., J Neurosurg Spine 2019 (38 studies, 750 patients) · Chu W et al., J Neurosurg Spine 2022 (265 patients) · Medani K et al., J Spine Surg 2019 · Kameda-Smith MM et al., Br J Neurosurg 2024 · Global Spine J 2023 (97 patients and systematic review) · Fletcher-Sandersjöö A et al., Acta Neurochir 2019 · Burke JF et al., J Neurosurg Spine 2016 · Klepinowski T et al., Surg Radiol Anat 2021.

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