

Foraminotomy

Definition

Foraminotomy is surgery that widens the opening in your back where nerve roots leave your spinal canal. You may have a narrowing of the nerve opening (foraminal stenosis).

Alternative Names

Intervertebral foramina; Spine surgery - foraminotomy; Back pain - foraminotomy; Stenosis - foraminotomy

Description

Foraminotomy takes pressure off of the nerve coming out of your spinal column. This reduces any pain you were having. Foraminotomy can be performed on any level of the spine.

You will be asleep and feel no pain (general anesthesia).

During surgery:

- You usually lie on your belly or sit up on the operating table. A cut (incision) is made in the middle of the back of your spine. The length of the incision depends on how much of your spinal column will be operated on.
- Skin, muscles, and ligaments are moved to the side. Your surgeon may use a surgical microscope to see inside your back.
- Some bone is cut or shaved away to open the nerve root opening (foramen). Any disk fragments are removed.
- Other bone may also be removed at the back of the vertebrae to make more room (laminotomy or laminectomy).
- The surgeon may do a spinal fusion to make sure your spinal column is stable after surgery.
- The muscles and other tissues are put back in place. The skin is sewn together.

Why the Procedure Is Performed

A bundle of nerves (nerve root) leaves your spinal cord through openings in your spinal column. These openings are called the neural foramina. When the openings for the nerve root become narrow, it can put pressure on your nerve. This condition is called foraminal spinal stenosis.

This surgery may be considered if you have severe symptoms that interfere with your daily life. Symptoms include:

- Pain that may be felt in your thigh, calf, lower back, shoulder, arms or hands. The pain is often deep and steady.
- Pain when doing certain activities or moving your body a certain way.
- Numbness, tingling, and muscle weakness.
- Problems walking or holding things.

Risks

Risks of anesthesia and surgery in general are:

- Reactions to medicines or breathing problems
- Bleeding, blood clots, or infection

Risks of foraminotomy are:

- Infection in wound or vertebral bones
- Damage to a spinal nerve, causing weakness, pain, or loss of feeling

- Partial or no relief from pain after surgery
- Return of back pain in the future

Before the Procedure

You will have an MRI to make sure foraminal stenosis is causing your symptoms.

Tell your health care provider what medicines you are taking. This includes medicines, supplements, or herbs you bought without a prescription.

During the days before the surgery:

- Prepare your home for when you leave the hospital after surgery.
- If you are a smoker, you need to stop. Your recovery will be slower and possibly not as good if you continue to smoke. Ask your doctor for help.
- For the one week before surgery, you may be asked to stop taking blood thinners. Some of these drugs are aspirin, ibuprofen (Advil, Motrin), and naproxen (Aleve, Naprosyn). If you are taking warfarin (Coumadin), dabigatran (Pradaxa), apixaban (Eliquis), rivaroxaban (Xarelto), or clopidogrel (Plavix), talk with your surgeon before stopping or changing how you take these drugs.
- If you have diabetes, heart disease, or other medical problems, your surgeon will ask you to see your regular doctor.
- Talk with your surgeon if you have been drinking a lot of alcohol.
- Ask your surgeon which medicines you should still take on the day of the surgery.
- Let your surgeon know right away if you get a cold, flu, fever, herpes breakout, or other illnesses.
- You may want to visit a physical therapist to learn exercises to do before surgery and to practice using crutches.

On the day of the surgery:

- You will likely be asked not to drink or eat anything for 6 to 12 hours before the procedure.
- Take the medicines your surgeon told you to take with a small sip of water.
- Bring your cane, walker, or wheelchair if you have one already. Also bring shoes with flat, nonskid soles.
- Arrive at the hospital on time.

After the Procedure

You will likely wear a soft neck collar afterward if the surgery was on your neck. Most people are able to get out of bed and sit up within 2 hours after surgery. You will need to move your neck carefully.

You should be able to leave the hospital the day after the surgery. At home, follow instructions on how to care for your wound and back.

You should be able to drive within a week or two and resume light work after 4 weeks.

Outlook (Prognosis)

Foraminotomy for spinal foraminal stenosis will often provide full or some relief from symptoms.

Future spine problems are possible for people after spine surgery. If you had foraminotomy and spinal fusion, the spinal column above and below the fusion could have problems in the future.

You may have more of a chance of future problems if you needed more than one kind of procedure in addition to the foraminotomy (laminotomy, laminectomy, or spinal fusion).

References

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Derman PB, Rihn J, Albert TJ. Surgical management of lumbar spinal stenosis. In: Garfin SR, Eismont FJ, Bell GR, Fischgrund JS, Bono CM, eds. *Rothman-Simeone and Herkowitz's The Spine*. 7th ed. Philadelphia, PA: Elsevier; 2018:chap 63.

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