



[Home](#) → [Medical Encyclopedia](#) → Epidural injections for back pain

URL of this page: //medlineplus.gov/ency/article/007485.htm

Epidural injections for back pain

An epidural steroid injection (ESI) is the delivery of powerful anti-inflammatory medicine directly into the space outside of the sac of fluid around your spinal cord. This area is called the epidural space.

ESI is not the same as epidural anesthesia given just before childbirth or certain types of surgery.

Description

ESI is done in a hospital or outpatient clinic. The procedure is done in the following way:

- You change into a gown.
- You then lie face down on an x-ray table. If this position causes pain, you either sit up or lie on your side in a curled position.
- The health care provider cleans the area of your back where the needle will be inserted. Medicine may be used to numb the area. You may be given medicine to help you relax.
- The provider inserts a needle into your back. The provider likely uses an x-ray machine that produces real-time images to help guide the needle to the correct spot in your lower back.
- A mixture of steroid and numbing medicine is injected into the area. This medicine decreases swelling and pressure on the larger nerves around your spine and helps relieve pain. The numbing medicine can also identify the painful nerve.
- You may feel some pressure during the injection. Most of the time, the procedure is not painful. It is important not to move during the procedure because the injection needs to be very precise.
- You are watched for 15 to 20 minutes after the injection before going home.

Why the Procedure is Performed

Your provider may recommend ESI if you have pain that spreads from the lower spine to the hips or down the leg. This pain is caused by pressure on a nerve as it leaves the spine, most often due to a bulging disk.

ESI is used only when your pain has not improved with medicines, physical therapy, or other nonsurgical treatments.

Risks

ESI is generally safe. Complications may include:

- Dizziness, headache, or feeling sick to your stomach. Most of the time these are mild.
- Nerve root damage with increased pain down your leg.
- Infection in or around your spine (meningitis or abscess).
- Allergic reaction to the medicine used.
- Bleeding around the spinal column (hematoma).
- Possible rare brain and nervous system problems.
- Difficulty breathing if the injection is in your neck.

Talk to your provider about your risk for complications.

Having these injections too often may weaken the bones of your spine or nearby muscles. Receiving higher doses of the steroids in the injections may also cause these problems. Because of this, most providers limit people to two or three injections per year.

Your provider will most likely have ordered x-rays, MRI, or CT scan of the back before this procedure. This helps your provider determine the area to be treated.

Before the Procedure

Tell your provider:

- If you are pregnant or might be pregnant
- What medicines you are taking, including herbs, supplements, and other drugs you bought without a prescription

You may be told to temporarily stop taking blood thinners. This includes aspirin, ibuprofen (Advil, Motrin), clopidogrel (Plavix), warfarin (Coumadin, Jantoven), naproxen (Aleve, Naprosyn), and heparin.

After the Procedure

You may feel some discomfort in the area where the needle was inserted. This should last only a few hours.

You may be told to take it easy for the rest of the day.

Your pain may become worse for 2 to 3 days after the injection before it begins to improve. The steroid usually takes 2 to 3 days to work.

If you receive medicines to make you sleepy during the procedure, you must arrange for someone to drive you home.

Outlook (Prognosis)

ESI provides short-term pain relief in at least one half of the people who receive it. Symptoms may remain better for weeks to months, but rarely up to a year.

The procedure does not cure the cause of your back pain. You will need to continue back exercises and other treatments.

Alternative Names

ESI; Spinal injection for back pain; Back pain injection; Steroid injection - epidural; Steroid injection - back

References

Basi HK, Rosenquist RW. Spine injections. In: Steinmetz MP, Berven SH, Benzel EC, eds. *Benzel's Spine Surgery*. 5th ed. Philadelphia, PA: Elsevier; 2022:chap 73.

Dixit R. Low back pain. In: Firestein GS, Budd RC, Gabriel SE, Koretzky GA, McInnes IB, O'Dell JR, eds. *Firestein & Kelley's Textbook of Rheumatology*. 11th ed. Philadelphia, PA: Elsevier; 2021:chap 50.

Narayan S, Dubin A. Nerve blocks: spine. In: Argoff CE, Dubin A, Pilitsis JG, eds. *Pain Management Secrets*. 4th ed. Philadelphia, PA: Elsevier; 2018:chap 43.

Review Date 4/24/2023

Updated by: C. Benjamin Ma, MD, Professor, Chief, Sports Medicine and Shoulder Service, UCSF Department of Orthopaedic Surgery, San Francisco, CA. Also reviewed by David C. Dugdale, MD, Medical Director, Brenda Conaway, Editorial Director, and the A.D.A.M. Editorial team.

Learn how to cite this page



CERTIFIED
Health Content
Provider
06/01/2028

A.D.A.M., Inc. is accredited by URAC, for Health Content Provider (www.urac.org). URAC's [accreditation program](#) is an independent audit to verify that A.D.A.M. follows rigorous standards of quality and accountability. A.D.A.M. is among the first to achieve this important distinction for online health information and services. Learn more about A.D.A.M.'s [editorial policy](#), [editorial process](#), and [privacy policy](#).

The information provided herein should not be used during any medical emergency or for the diagnosis or treatment of any medical condition. A licensed medical professional should be consulted for diagnosis and treatment of any and all medical conditions. Links to other sites are provided for information only – they do not constitute endorsements of those other sites. No warranty of any kind, either expressed or implied, is made as to the accuracy, reliability, timeliness, or correctness of any translations made by a third-party service of the information provided herein into any other language. © 1997-2025 A.D.A.M., a business unit of Ebix, Inc. Any duplication or distribution of the information contained herein is strictly prohibited.



National Library of Medicine 8600 Rockville Pike, Bethesda, MD 20894 U.S. Department of Health and Human Services

National Institutes of Health