

Epidural injection for chronic pain relief

Information and advice for patients

Pain management

What is an Epidural?

An epidural is an injection of local anaesthetic and anti-inflammatory drug (steroid) into the epidural space (an area around the spinal cord).

How does an epidural injection work?

An epidural works by delivering a local anaesthetic and steroid mixture to the nerve causing the pain. A needle is inserted in the epidural space, near the spinal cord. Your sensory nerves, responsible for pain and touch, pass through this space. The local anaesthetic and steroid are injected through the needle to the epidural space and the local anaesthetic numbs the nerve to give pain relief. The steroid reduces inflammation and may enable the pain relief to last longer. The steroid can take up to two weeks to take effect.

Are there alternative treatments?

Alternative treatments may include other medications the use of a TENS machine or Self-Management Programme.

What types of epidural injections are available?

The type of epidural injection depends on where it is given. It can be injected at different points from the neck to the bottom of the spine.

Areas of epidural injection:

- Cervical (neck)
- Thoracic (middle of spine)
- Lumbar (lower spine)
- Caudal (sacral spine)

There are two common types of epidural injection that your doctor may use.

- Interlaminar injection, where a needle is placed in the centre of the spine, between two vertebrae (the bone that forms the spine).
- Transforaminal injection, where the needle is placed into a space in the side of a vertebra that nerves pass through.

Your doctor will discuss which type of epidural injection is likely to give you effective pain relief.

What are the benefits of the treatment?

The procedure may help to ease some of your pain and symptoms. How long the pain relief lasts varies from person to person and can be a few days to several months. An epidural is not a cure for your pain on its own, if followed up with physiotherapy it may help to improve your movement and functional abilities.

Epidural injection for chronic pain relief

Information and advice for patients

Pain management

Are there any risks or side-effects?

All medical procedures carry a risk of complications. Precautions will be taken by your doctor to minimise the risk as far as possible. Some complications can be serious and we feel you should be aware of them in order for you to make an informed decision about your epidural injection.

- Failure of the epidural injection to relieve your pain
- Occasional bruising may occur around the injection site.
- Allergic reaction to the local anaesthetic or steroid is rare it would happen during the procedure and would be treated accordingly.
- Worsening pain, the epidural injection may make the pain worse but this should settle in a couple of days.
- Low blood pressure, some patients can faint due to the epidural injection lowering the blood pressure. This is the reason we monitor your blood pressure post procedure.
- Headache, there is a particular type of headache that can happen if the bag of fluid around your spinal cord is accidentally punctured (risk less than 1 in 100). The headache can vary from mild to severe which is made worse by sitting up and standing up. Lying flat and taking simple analgesia may help. You should drink plenty of fluids (some people find tea and coffee especially helpful). The headache usually resolves within a week or two but if symptoms are not improving you will need to contact the department for a review.
- Very rarely you may experience difficulty passing urine, this is because the nerves to the bladder may be affected. We will monitor the situation and you may need to stay until you are able to pass urine or may need a catheter for short time while the effect wears off.
- Temporary leg or arm weakness. This can vary from being almost unnoticeable to not being able to move or arms or legs at all. You may need to stay in our recovery area for a few hours or you may be able to go home with a responsible adult.
- Seizures caused by the local anaesthetic (risk 1 in 10,000). These are usually temporary. The risk is higher if you are epileptic.
- Unexpected high block, if the local anaesthetic spreads beyond the intended area (risk 1 in 18,000). This can make it difficult for you to breath, cause you to have low blood pressure and rarely, cause you to become unconscious. If this happens you will need admitting to hospital for specialist care so you can be carefully monitored.
- Infection around your spine (risk less than 1 in 150,000). This can cause an abscess or meningitis.

Epidural injection for chronic pain relief

Information and advice for patients

Pain management

- Short-term nerve injury, which recovers fully (risk 1 in 7,000). The risk is higher if you have a thoracic or cervical epidural injection.
- Visual disturbances or loss of vision. This is rare and can happen if the steroid affects the retina (light-sensitive layer at the back of the eye). Let the healthcare team know straight away if you develop any problems with your vision.
- Long-term, nerve injury (risk less than 1 in 250,000). The risk is higher if you have thoracic or cervical epidural injection.
- Blood clot around your spine (risk less than 1 in 170,000).
- Paralysis, this can be caused by infection, bleeding near the spinal cord or injury to your spinal cord. This is rare.

Preparing for the procedure

Please let us know if you are taking anticoagulant medication (blood thinners) such as Clopidogrel (Plavix), Warfarin, Dipyridamole, Rivaroxaban, Apixaban, Dabigatran and Edoxaban. You will need to discuss with the consultant when to stop the medication. If you are taking Warfarin we will need to a blood test prior to the procedure. Please be aware this may cause a slight delay to your treatment.

You may eat and drink as normal and take your other medications as prescribed. Please bring a list of your medications with you.

The procedure

You will be admitted to the Minor Ops unit in the Birmingham Treatment Centre. Please note that this is a mixed sex facility.

When you arrive, a nurse will check your blood pressure and complete an admittance check list. The doctor will then explain the procedure and ask you to sign a consent form. Please make sure you understand the procedure and ask any questions.

During the procedure

The whole procedure will take approximately 20-30 minutes.

There are various ways of performing the injection and the doctor will decide on the day which method is best for you. You may be asked to sit on the edge of the bed or lie on your side or stomach. The area being injected is cleaned then you will be given a local anaesthetic injection to numb the skin before the epidural is performed.

When the epidural needle is inserted, some dye is injected to ensure that the needle is in the epidural space and x-rays are taken to ensure accuracy and safety, then the local anaesthetic

Epidural injection for chronic pain relief

Information and advice for patients

Pain management

and steroid are injected. You may feel some pressure and discomfort in your back/neck and down your legs/arms when you are having the injection. Please let the doctor or nurse know if you are uncomfortable or if the procedure is painful.

After the procedure

After the epidural injection a nurse will check your blood pressure and you will be asked to wait for approximately 20 minutes. You may get an area of numbness or altered sensation caused by the local anaesthetic in the epidural injection. When it is safe for you to be discharged you can go home accompanied by a friend or relative. You must not drive a vehicle yourself or travel on public transport.

Do not walk long distances, drive, operate machinery or do any potentially dangerous activities (this includes cooking) until you have fully recovered feeling, movement and co-ordination. The epidural injection may take a few days to several weeks to start taking effect and relieve the pain. Initially the pain may feel worse, but this should settle. It is important that you continue taking your usual pain killers until you feel some benefit from the injection.

Follow up

After the procedure you will be discharged back to the care of your GP who will review your progress and can refer you back to the pain clinic in the future, if needed.

Symptoms to report

If your pain becomes worse and you experience any redness, heat or swelling around the injection site, please contact your GP as you may have developed an infection.

Contact details

If you have any questions or concerns please contact us on:

Tel: 0121 507 4344 / 5602 / 4866

Monday – Friday 9am – 4pm

If you have any problems outside these times, or are experiencing severe side effects, please contact your GP or attend the local A&E department.

Further information

You can access further information from

- **The Pain Society** www.britishpainsociety.org
- **BackCare UK Charity** www.backcare.org.uk

Epidural injection for chronic pain relief

Information and advice for patients

Pain management

References

- National Institute for Health and Care Excellence (2011) Low back pain and sciatica in over 16s: assessment and management. Available at: <https://www.nice.org.uk/guidance/ng59> [Accessed July 2023].
- Patient Information (2022) Spinal Stenosis. Available at: <https://patient.info/bones-joints-muscles/back-and-spine-pain/spinal-stenosis> [Accessed July 2023].
- Faculty of Pain Medicine of the Royal College of Anaesthetists (2021) Recommendations of good practice in the use of Epidural injection for the management of pain of spinal origin in adults. Available at: <https://fpm.ac.uk/good-practice-use-epidural-injections-management-pain-spinal-origin> [Accessed July 2023].
- Faculty of Pain Medicine of the Royal College of Anaesthetists (2019) Epidural Steroid. Available at: https://fpm.ac.uk/sites/fpm/files/documents/2019-08/BPS_FPM_Steroid_Statement_Final.pdf [Accessed July 2023].
- The 3rd National Audit Project of The Royal College of Anaesthetists (2009) Major complications of central neuraxial block in United Kingdom. Available at: <https://www.rcoa.ac.uk/sites/default/files/documents/2019-09/NAP3%20report.pdf> [Accessed September 2023].
- Eido healthcare (No Date) Epidural for Chronic Pain Relief. Available at: https://www.aboutmyhealth.org/docs/A08lite_en.pdf [Accessed September 2023]

If you would like to suggest any amendments or improvements to this leaflet please contact SWB Library Services on ext 3587 or email swbh.library@nhs.net.



A Teaching Trust of The University of Birmingham
Incorporating City, Sandwell and Rowley Regis Hospitals
© Sandwell and West Birmingham NHS Trust

ML7298

Issue Date: October 2023
Review Date: October 2026