Epidural Injections

Information for patients

New Hall Hospital

Part of Ramsay Health Care

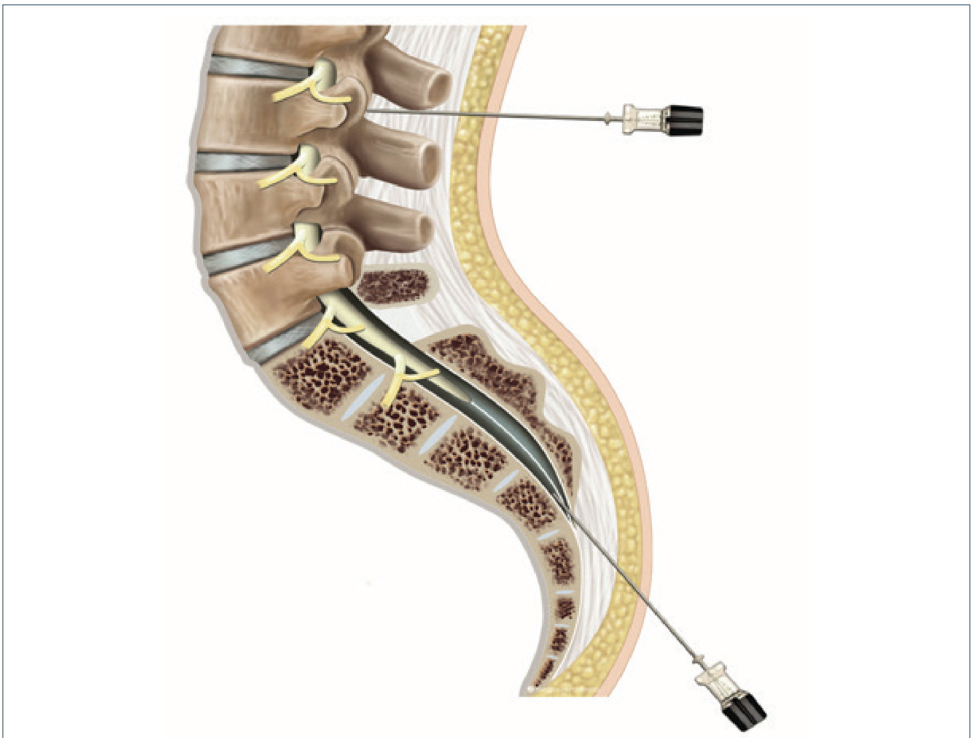
What are **Epidural Injections?**

All epidural steroid injections are done to try and reduce sciatic leg pain by placing a steroid, which is an anti-inflammatory, around the nerves in your lower back (lumbar spine) that are irritated or compressed. There are a number of different types of epidural injections. The type of epidural injection that your spinal specialist recommends will depend on your symptoms.

The diagram below shows the various locations of different epidural injections.

Interlaminar or lumbar epidurals (top needle on diagram) are when the needle is placed between the lamina bones at the back of your vertebra.

Caudal epidural injections (bottom needle on diagram) are when the needle is placed just above the coccyx bone in a hole called the sacral hiatus.



Why do I need this injection?

To give pain relief.

- The steroid portion of the injection is an anti-inflammatory and reduces the inflammation and swelling around your nerves in the spinal canal which may help ease pain, predominantly in your leg, but also sometimes in your back.
- Response to the injection varies greatly from person to person. Some people get excellent pain relief, while others notice little or no benefit.
- The MRI scan does not help us understand who will respond to the injection. The length of time people notice a change in their pain varies, from no response through to long term improvement.
- Symptoms may return, however the injection can provide a window of pain relief that allows you to engage with Physiotherapy and exercise.

Consent

Your Spinal Consultant will explain the risks and benefits to the procedure. These are also outlined in this leaflet. You will be asked to sign a consent form prior to the injection. If you have any questions, then please feel free to ask any member of the Spinal Team. There is also a patient information leaflet on consent, that you can read for more information - please ask if you would like a copy.

Hundreds of thousands of patients have had spinal epidural injections with steroids, with only a small number of risks reported. Around a quarter of medicines used in pain medicine are ‘off license’. This means that the medicine has not been approved by a regulatory body for the purpose for which they are to be used. Drug companies do not feel the need to run expensive trials to licence steroid injections for the spine, when they are already in constant safe and effective use in medical practice.

What are **the risks?**

Common

- Worsening of pain. Some people experience a short term increase in back or leg pain.
- Pain and bruising at the injection site. This will improve after a few days and not everyone experiences it.
- Effects of the steroid. This can include a flushed face or insomnia. The steroid will also reduce your normal immune response for a week or so, therefore you may be more susceptible to picking up or fighting illness. Diabetics may notice an increase in blood sugar levels for a few days after the injection, so it's advisable to closely monitor your blood sugar levels for the following week after the injection if you are diabetic.
- Feeling faint as your blood pressure may lower temporarily.

Rare

- Allergic reaction to the local anaesthetic, dye, antiseptic or plasters used. If you any known allergies, then please advise your spinal medical team prior to the procedure.
- Infection around the needle site.
- Headache due to a small needle puncture of the membrane called the dura, that surrounds the nerves and cerebrospinal fluid in the spinal canal. If this does not improve within a few days contact the Spinal Nurse Specialist Team.

Very Rare

- Blood can clot in the epidural space which could put more pressure on the nerves inside the canal and increase leg pain or weakness. It is very rare for permanent damage to occur to a nerve and the injection is done under X-Ray guidance so the Consultant can accurately place the needle.

What are **the benefits?**

- The injection can greatly improve your leg and sometimes your back pain in the short to long term but may not provide a cure.
- Response to the local anaesthetic can confirm that we are treating the correct area responsible for your symptoms. This can be important if surgery needs to be considered at a later stage.
- By reducing your pain, you can engage with other beneficial activities such as exercise or Physiotherapy.
- You may be able to reduce or stop pain medication (under advice from your GP).
- Your sleep and day to day activities may improve if you get a reduction in pain.

How do **I prepare?**

Please let us know if:

- You are diabetic.
- You have tested positive for MRSA.
- You are feeling unwell or have a temperature.
- You have been admitted to hospital since being placed on the waiting list for the injection.
- There is any possibility you might be pregnant. The injection is done using an X-Ray.
- If you have a blood clotting disorder.
- If you are taking any medication that thins your blood. This will need to be stopped prior to the procedure. It's very important that you inform the spinal medical team at least a week in advance of the injection, as they will need to advise you how long your medication needs to be stopped for, prior to the injection. Failure to stop blood thinning medication increases your risk of complications to the blood vessels as outlined in the rare risks section above. If you are taking any of the following medication, or have any concerns about

whether your medication thins the blood, let our spinal medical team know as this list is not exhaustive:

- Non-Steroidal Anti-Inflammatory (NSAID) drugs such as Naproxen, Ibuprofen, Diclofenac, Meloxicam
- Aspirin
- Anti-Coagulant drugs such as Warfarin (Marevan), Heparin injections
- Anti-Platelet drugs such as Clopidogrel (Plavix), Dabigatran (Pradaxa), Rivaroxaban (Xarelto), Apixaban (Eliquis), Edoxaban(Lixiana), Prasugrel (Effient), Ticagrelor (Brilique) Dalteparin (Fragmin) injections, Enoxaparin (Clexane) injections, Tinzaparin (Innohep) injections, Dipyridamole (Persantin Retard) Phenindione, Acenocoumerol (Sinthrome), Asasantin Retard

Please ensure that a responsible adult accompanies you to the hospital and is able to drive you home afterward. This is because you will be unsafe to drive after the procedure due to the potential numbing effect of the local anaesthetic on your leg. We do not recommend that you use public transport. By the following day the numbness should have worn off. If you are having a sedation you must arrange for a friend or relative to stay with you overnight.

What happens **during the procedure?**

You will be sent an appointment to come to the hospital to have your injection. Expect to be in the hospital for 3-4 hours, although you may be able to go home more quickly than this. You will be asked to change into a hospital gown. Your back or sacral area will be cleaned with antiseptic solution. The injection can be done with you lying on your side curled up, or sitting while leaning forward. The injection is done under X-Ray guidance. Local anaesthetic will be injected which can sting.

Caudal Epidural - the needle is placed in the natural bony hole called the sacral hiatus at the base of your sacral bone. The steroid is then flushed up the epidural space, behind where the lumbar discs and nerves sit (see diagram on first page). This approach is mainly used

if you have symptoms coming from the lowest discs, L5/S1 and L4/5 and L3/4. It is used for people who have single (unilateral), or bilateral leg pain, meaning pain in both legs. It can also be used if the spinal specialist feels low back pain might be coming from the worn disc.

Lumbar Epidural - using the interlaminar approach. The lamina is the name of the bone at the back of your spinal vertebra. The needle is placed between the lamina bones of two segments in your lower back (lumbar spine). The steroid is then flushed into the epidural space, behind the discs and nerves (see diagram on first page). This technique is used if the upper lumbar discs are affected L1/2, L2/3 or L3/4. It is used for people who have single (unilateral), or bilateral leg pain, meaning pain in both legs. It can also be used if the spinal specialist feels low back pain might be coming from the worn disc.

Dye is often used to confirm that the needle and steroid are placed in the correct position. You will feel pressure as the steroid is injected. Sometimes the symptoms in your leg will be temporarily worse due to the pressure around the nerve. The needle will then be removed. By doing the injection with local anaesthetic, there is an added advantage of assessing whether there is a diagnostic change in symptoms after the injection, as you will be alert and able to record this whilst the anaesthetic is active (approximately up to 6 hours).

Injections under sedation - You will be given a sedative prior to the procedure in a separate room next to the theatre. Once the sedative has taken effect you will be taken on the hospital bed to the theatre, where the injection will proceed as above.

What happens **after the procedure?**

You will be transferred to a recovery area. When you feel sufficiently well enough and staff are satisfied with your vital signs, you will be discharged. The person accompanying you can then drive you home.

If you have had a local anaesthetic:

Make a note of any change in your back and leg pain for the first 6 hours after the injection. You may choose to use the pain diary at the end of this leaflet to record the change in pain levels as they occur.

It's very common for the pain to return the following day after the injection. We therefore recommend that you continue with your usual pain relief medications. The next day you can start to take any anti-inflammatories or other blood thinning medications you have stopped prior to the injection, as you did before the procedure. You can gradually and gently return to normal day to day activities. We would advise you to avoid strenuous activity for 48 hours after the injection.

If you have had a sedation:

You should arrange for a responsible adult to stay with you overnight following your injection. You should not drive or make any important decisions for 48 hours after the procedure. After this you can return to work and normal activities as you feel able.

As your pain improves you can gradually increase your activity and return to exercise. Remember to pace this return to function and exercise gradually, as you may have good and bad days as you recover.

Will I have a **follow up appointment?**

The steroid, which is an anti-inflammatory, should start to work in the next week or two. This varies quite a bit from person to person. If you have not had a significant benefit from the steroid by one month after the injection, **contact your Spinal Consultant's Secretary to book a follow up appointment.** We leave you on an open appointment for a set time after the procedure, so if the benefit does not last, don't worry you can still contact your Spinal Consultant's Secretary to organise a review within this period. Secretaries telephone numbers are at the end of this leaflet.

Who do I contact **if I have concerns?**

If you are worried about any symptoms after your injection you can contact the Spinal Nurse Specialist Team for advice.

Remember it is common to experience temporary increase in symptoms in the back and leg after the injection and you should manage this by taking pain relief as prescribed by your GP and adjusting your activities.

Contact us if:

- Your injection site shows signs of infection such as discharge or redness/swelling lasting more than the initial few days or if you have a fever or feel unwell.
- You experience unremitting severe pain, or new pain, weakness or altered sensation in a different place or limb from your symptoms prior to the injection.
- You develop new persistent headaches.

If you are unable to reach the Spinal Nurses or you have an urgent query outside of the hours the Spinal Nurses are available, contact your GP or local Out of Hours Service.

Useful Contact Numbers:

Spinal Nurse Specialists: 01722 435 175. Leave a message on the answering machine. Messages will be reviewed between **Monday - Friday 8:00am - 3:30pm.** Please leave your telephone number and details and we will call you back.

For follow up appointments, contact your Spinal Team's Secretary:

Mr Hilton	01305 257 096 / 01722 435 164
Mr Stenning	01305 257 096 / 01722 435 686
Mr Chapple	NHS 01722 435 183 / Private 01722 435 167
Mr Dabke	01722 435 176
Mr Davies	01722 435 682
Mr Fowler	01722 435 176
Mr Evans	01722 435 697
Dr Park	01305 257 096
Elaine Robinson	01722 435 168
James Beck	01305 257 096
Main Switchboard	01722 422 333

Pain **Diary:**

Pain score: 0 is no pain, 10 is very severe pain.

	Back Pain	Leg Pain
Prior to injection		
First 6 hours after injection		
24 hours after injection		
Two weeks after injection		
One month after injection		
Two months after injection		

References:

1. Royal College of Anaesthetists Anaesthesia Explained: Side Effects and Complications 2019. https://www.rcoa.ac.uk/documents/anaesthesia-explained/side-effects-complications

2. NHS Steroid Injection Patient Information. Available at: https://www.nhs.uk/conditions/steroid-injections/

NICE treatment summary. Available at: https://bnf.nice.org.uk/treatment-summary/oral-anticoagulants.html

Medical Illustrations by www.medical-artist.com

Notes

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