



Midlands  
Orthopaedic Centre

# Trauma & Orthopaedics

Spinal Injections

Patient Information Leaflet



The Dudley Group  
NHS Foundation Trust

## Introduction

Welcome to the Dudley Group NHS Foundation Trust. This leaflet aims to answer some of the questions you may have about having a spinal injection. It explains the benefits, risks and alternatives, as well as what you can expect when you come to hospital. Your consultant will be able to give you more specific information about a particular injection. If you have any questions or concerns, please do not hesitate to speak to the doctor or nurse caring for you.

## What is a spinal injection?

The spine is made of a number of bones called vertebrae which are connected to one another, allowing your spine to move (see figure 1). They also protect the spinal cord and nerves. The strong connections between vertebrae are made up of:

- intervertebral discs which act as your spine's shock absorbing system
- facet joints which connect the vertebrae to one another

Due to a variety of reasons, these structures can wear down and, with time, can be a cause of pain.

Spinal injections deliver medicines into or near your spine, normally around the source of your pain. There are two medicines used in spinal injections:

- **local anaesthetic** which is used to block pain in the injected area
- **steroid** which is used to reduce swelling and inflammation in the injected area.

The local anaesthetic injection gives immediate relief while the steroid injection takes effect. The aim of a successful spinal injection is to ease your back, leg or arm pain or sometimes all of these.

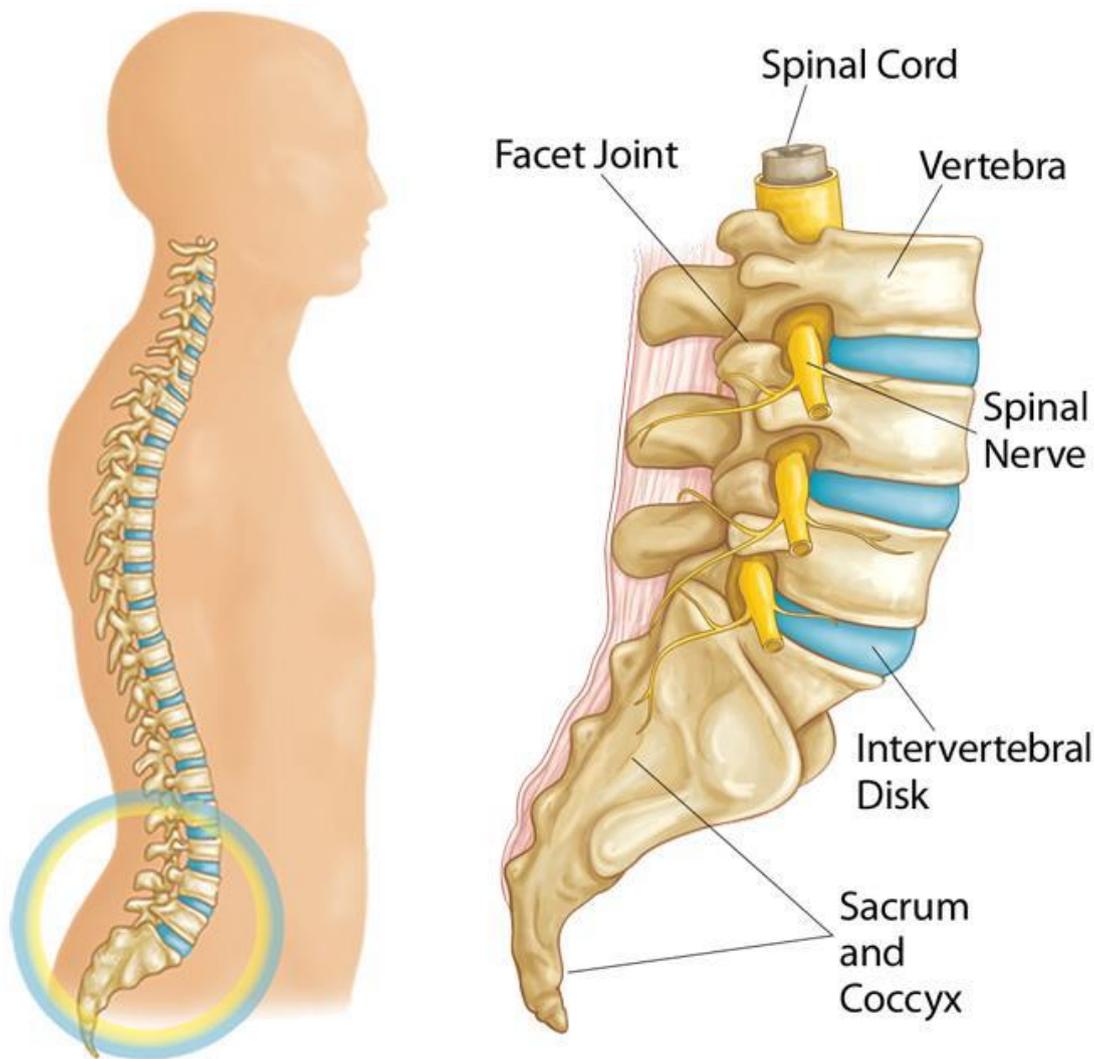


Figure 1 shows the spinal cord

**There are four injection techniques that are commonly used:**

**Caudal epidural injection**

This injection targets the space that surrounds your spinal cord. It is used to improve the pain caused by irritated or inflamed nerves in the spine, which causes sciatica-type pain in the lower limbs (hips, legs and feet).

**Facet or sacroiliac joint injection**

These injections target the joints that link the bones of your spine. These joints can become painful due to arthritis (wear and tear) of the spine, inflammation, back injury, bad posture or previous disc problems.

**Nerve root injection**

The aim of this injection is to target individual nerves in your spine and relieve your pain; usually pain that travels down the leg. It can also enable your consultant to pinpoint which nerve is causing your back and/or leg pain.

**Discography**

A discography is an investigation that can help to localise pain in a particular disc. An injection can then be given during the procedure that targets the intervertebral discs between the bones of your spine disc.

The type of spinal injection you have will be based on your specific symptoms.

## **What are the benefits – why should I have a spinal injection?**

Spinal injections are used for diagnostic or therapeutic purposes.

A **diagnostic** spinal injection can sometimes help your consultant to plan the long-term management of your condition. It is very useful when the source of your pain has not been clearly identified before. It can determine which spinal structure or level in the spine is causing your symptoms.

A **therapeutic** spinal injection improves your symptoms with the use of local anaesthetic and steroids which reduce swelling and inflammation. This can be repeated if it works well and will allow you to progress with other treatments such as physiotherapy. The injection may not relieve the symptoms in everyone. Therefore, your consultant will discuss other options of treatment if the injection fails to relieve your pain.

## **What are the risks of a spinal injection?**

There is always an element of risk involved with any procedure. In general, the risks relate to the anaesthetic and the spinal treatment itself.

Spinal injections are usually carried out under local anaesthetic. You will be awake and may feel minor discomfort or pain. In some cases, sedation may be offered. This relieves anxiety and helps you relax. The anaesthetist will discuss this with you before your procedure and he/she will recommend the best method for you. You can get further information by following the link to our website below:

<http://dudleygroup.nhs.uk/services-and-wards/anaesthetics/>

Spinal injections are commonly performed and are generally safe. Before suggesting the treatment, your consultant will have considered that the benefits of the procedure outweigh any disadvantages.

However, to make an informed decision and give your consent, you need to be aware of the possible side effects and risks/complications. If complications occur, they are usually mild and clear up after about three weeks.

### **Risks include:**

- **Infection** (affects less than one out of every 100 patients treated). Usually, this just affects skin and soft tissues and a short course of antibiotics is required to treat it.

However, rarely this can be serious if the infection gets into your spine and causes an abscess or meningitis. If this occurs, you will need an intense intravenous course of antibiotics in hospital. This means that the drugs are given directly into a vein using a cannula (thin, plastic tube).

- **Bleeding** (affects less than one out of every 100 patients treated). Very rarely, bleeding and/or bruising in the injected area may occur. This may cause increased pain for a few days. This can be serious if you take medicines that thin your blood because it can lead to a collection of blood around your spinal nerves. This is known medically as an epidural haematoma.

**Inform your consultant or nurse about any blood thinning medicines you take so they can give you appropriate advice about stopping these before the procedure.**

- **Thromboembolism (a blood clot)** is uncommon and can result from the reduced mobility (movement) due to pain from the spine, rather than as a consequence of the injection.

To reduce the chance of this happening, every patient is assessed against a list of risk factors. After this assessment, we may prescribe anti-thrombosis stockings (TEDS) for you to wear for two weeks after the injections.

- **Headaches** (affects less than one out of every 100 patients treated). Occasionally, the spinal needle may puncture the outer covering of your spinal cord causing leakage of spinal fluid. This is not serious but it can cause a dull headache for up to a week. If you get this, you will need to lie flat for at least three days after the treatment.
- **Spinal nerve injury** (affects around one out of every 100 patients treated). This can happen with any of the injections although it is more likely with nerve root injections or discography.

It is caused by the spinal needle being in contact with the nerve, or more commonly, the nerve sheath which is the protective covering of the nerves. This can lead to a temporary loss of feeling or muscle weakness in the legs, or bladder/bowel problems.

In rare cases, the numbness or weakness can be permanent. A reaction to the drugs can sometimes contribute to this nerve damage.

- **Increased pain in the treated area** (affects around one out of every 100 patients treated). This is usually temporary and lasts a few hours or a few days. In some cases, the pain can last for a long time. If you experience increased pain several days after the injections, please contact us as it may be a sign of infection.
- **An allergic reaction** to the injection (affects around one out of every 100 patients treated). These will usually happen immediately so help is available. Most reactions can be treated and cause no permanent harm.

If you have any signs of an allergic reaction after you leave the hospital, please seek medical advice from your GP or call us on one of the following numbers:

**Day surgery unit at Russells Hall Hospital** on:  
01384 456111 ext. 1886 (7am to 8pm, Monday to Friday)

**Day surgery unit at Corbett Outpatient Centre** on:  
01384 456111 ext. 4700 (7.30am to 5pm, Monday to Friday)

**Out of these hours, call Ward B1** on 01384 456111 ext. 4691

### **Steroid side effects**

Like all medicines, steroids may cause side effects although not everybody will experience them. Some of the side effects you may get include hot flushes, feeling sick, mild abdominal pain, fluid retention, a temporary rise in blood glucose levels and menstrual irregularities (in women). These should settle within a few days.

If you have diabetes and your blood glucose level is not very well controlled, please let the person giving you the injection know. You are advised to check your blood glucose level in the evening after having the injections.

This use of steroids is outside the licence for their use. The licence of a drug indicates which treatments the manufacturer can sell it for. Doctors are free to use a drug for whatever purpose they consider it appropriate, as long as there is evidence to support that use and the benefits of use outweigh the risks.

The use of steroids in spinal injections has been practised for many years. It has been shown to be an effective treatment for back pain and leg pain.

For further information on the use of drugs beyond licence, see the publication 'Use of medicines outside of their UK marketing authorisation in pain management and palliative medicine' (2012) which can be downloaded from the website:

<https://www.britishpainsociety.org/people-with-pain/>

### **Anaesthetic risks**

You may decide after discussion with your consultant that you want to have sedation while you are being given the injection. This is when a small amount of anaesthetic or similar drug is given to make you feel sleepy and relaxed during your procedure.

Sedation is very safe and life-threatening complications are very rare. It is common for patients not to remember much about the procedure but this can be good as many patients do not want to remember it. There are a few temporary side effects that you may experience including feeling sick, dizziness and feeling confused. These side effects can be treated with medication.

More information about sedation can be obtained by accessing the following link on our website:

<http://dudleygroup.nhs.uk/wp-content/uploads/2015/02/About-sedation-V1.pdf>

## Rare complications

Life threatening complications are extremely unlikely to happen but any treatment can lead to stroke, heart attack or death.

## Can everyone have spinal injections?

No. Some people are not good candidates for spinal injections. This includes those with:

- an active infection such as blood poisoning, chest or a dental infection
- a skin infection at the site of needle puncture
- a bleeding disorder, or people taking medicines to thin their blood, unless advised by the haematology team
- a poorly controlled medical condition such as diabetes, high blood pressure or heart disease
- an allergy to contrast dye, steroids or local anaesthetic

## What are the alternatives?

There are other pain-relieving therapies that can help ease back pain, such as pain-relieving medicines and a TENS (transcutaneous electrical nerve stimulation) machine. Exercise, acupuncture, yoga, pilates and relaxation therapy may also help ease back pain.

## What happens before the procedure?

Your procedure will be at Russells Hall Hospital or Corbett Outpatient Centre as an outpatient in the Day Surgery Unit (either a morning or an afternoon appointment). You will receive a letter confirming this.

Please ask the outpatient nurse or pre-op assessment nurse (if you are having sedation) for a leaflet on the admission process. You will receive most of the information in the post before your procedure.

You will need to have routine swabs taken for Methicillin-resistant Staphylococcus aureus (MRSA). These bacteria are resistant to several widely used antibiotics.

During your pre-assessment, you should tell your nurse about any health conditions you have, such as diabetes or bleeding disorders, and about any medicines that you may be taking, including blood thinning and over-the counter medicines. You may be asked to stop taking certain medicines for several days before the procedure.

If you are having the procedure with a local anaesthetic but without sedation, you may not have a full assessment before the procedure. Therefore, you should contact the numbers below for advice if you are taking any of the following medications:

- Clopidogrel or similar blood-thinning drugs

- Rivaroxaban or similar drugs
- Warfarin

If you are a woman of child-bearing age, you must tell your nurse if you could be pregnant. If you are unsure, you will be asked to take a pregnancy test. Spinal injections are not suitable for pregnant women because X-rays are usually used during the treatment. They are safe for adults but may harm your developing baby. If you are pregnant, your doctor will talk about alternatives to the treatment.

## **Giving my consent (permission)**

We want to involve you in decisions about your care and treatment. If you decide to go ahead with the procedure, we will ask you to sign a consent form. This states that you agree to have the treatment and you understand what it involves.

## **What happens during the treatment?**

On the day of your treatment, the consultant will come and see you in the Day Surgery Unit to go through the procedure with you and answer any questions you may have. If you are happy to proceed, they will ask you to sign the consent form.

The anaesthetist may also review your fitness for the procedure and finalise which anaesthetic you are going to have.

We will then take you to the operating theatre. Usually you will lie on your stomach during the procedure.

If you are having a sedative, the anaesthetist will inject it into a vein in the back of your hand. After cleaning the injection site with a sterile antiseptic wipe, a local anaesthetic is injected. This may sting as it is injected but then it will cause the skin to become numb. Your doctor will carefully insert a thin, hollow spinal needle into your spine using an X-ray machine for guidance.

You should not feel the needle going in but once it has reached your spine, you may feel some pain or discomfort. While the needle is being inserted, it is important that you do not move. This is because any movement makes positioning of the needle more difficult.

Please tell your doctor if you feel any pain or discomfort that prevents you from lying still. The local anaesthetic and steroids are then injected into your spine. If you are having a discography, please let your surgeon know if you have any pain in your back or leg during the procedure.

When the treatment is finished, the doctor will take the needle out and cover the injection site with a plaster. The treatment normally takes around 10 to 20 minutes to complete.

## **Will I feel any pain after the treatment?**

You may have some tenderness at the needle insertion site. This will normally last for a few hours. You can place an ice pack on the area to reduce the discomfort, as often as you require but for no longer than 20 minutes at a time. You should never put ice directly on your skin as it can cause frostbite.

It is also common after this treatment to have an increase in pain for the first 24 to 72 hours. This occurs because the medicines are injected in an area where there is already inflammation. You should not be alarmed by this. Your symptoms should gradually improve in the days after the spinal injection.

The local anaesthetic will keep you pain-free for a while, but it is best to take things easy for the first 24 hours. After this, your back may start to feel sore again because the steroids take a few days to work.

The spinal injection can work for up to three months before your symptoms come back.

## **What happens after the procedure?**

After the treatment, we will take you to the recovery department. This is where you are monitored for a while to make sure you recover well after the procedure. We will then take you to the discharge lounge, or to an orthopaedic ward if you are staying overnight for medical reasons.

A nurse will make sure that you are safe to move around and that you have passed urine before going home.

Sometimes, your leg may feel numb or weak. This is usually due to the local anaesthetic blocking your nerves. Do not be alarmed by this as it should wear off within six to eight hours. If you have any concerns about walking, or controlling your bladder/bowel, you must tell a member of staff.

You will need to arrange for a responsible adult to take you home in a car or taxi.

## **What do I need to do after I go home?**

It is essential that you continue to take painkillers as advised after your treatment. A nurse will discuss your painkillers with you before you leave hospital.

You can remove the plaster after 24 hours and you can then have a bath or shower as normal. Before the plaster is removed, avoid getting the injection site wet.

Generally, there are no restrictions after your spinal injections once the pain following the injection has settled down. You should be able to return to physiotherapy or other spinal exercises within a week of your injection.

Depending on what work you do, you may wish to return to work after 72 hours. If you are not sure, please speak to your GP or ask your consultant when you are having the injection.

If your pain does not settle within four to six weeks, you can either be reviewed in your scheduled outpatient appointment or you can contact your GP for advice and pain management.

## **What should I do if I have a problem?**

Please contact your GP, go to your local walk-in medical centre or call 111, if you experience any of the following after your injection:

- excruciating pain unlike your normal symptoms
- increasing redness, swelling or oozing around the injection site
- fever (temperature higher than 38.5°C)
- sudden weakness or numbness which is not going away
- sudden loss of bowel or bladder control
- severe headache which is not improved with painkillers

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

Depending on your spinal condition, the consultant may discharge you back to your GP for follow up.

In some cases, we will give you a follow up appointment for six to eight weeks after your injection. This will usually be the case if your consultant feels that you may need further treatment after the injection. We will send you an appointment letter but if you have not heard from us within four weeks after leaving hospital, please contact us.

## **Can I find out more?**

Further information about spinal conditions and treatment is available at the following weblink:

<https://spinesurgeons.ac.uk/Booklets>

<https://spinesurgeons.ac.uk/resources/Documents/Booklets/FINAL-04371-18-Lumbar-Radiculopathy-Nerve-Root-Block-Injection.pdf>

If you have any questions, or if there is anything you do not understand about this leaflet, please contact:

**Day surgery unit at Russells Hall Hospital** on:  
01384 456111 ext. 1886 (7am to 8pm, Monday to Friday)

**Day surgery unit at Corbett Outpatient Centre** on:  
01384 456111 ext. 4700 (7.30am to 5pm, Monday to Friday)

**Out of these hours, call Ward B1 on 01384 456111 ext. 4691  
Your consultant's secretary – please ring the main switchboard number on 01384  
456111 and ask for your consultant's secretary.**

Russells Hall Hospital switchboard number: 01384 456111

**This leaflet can be downloaded or printed from:**

<http://dgft.nhs.uk/services-and-wards/trauma-and-orthopaedics/>

If you have any feedback on this patient information leaflet, please email  
[dgft.patient.information@nhs.net](mailto:dgft.patient.information@nhs.net)

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