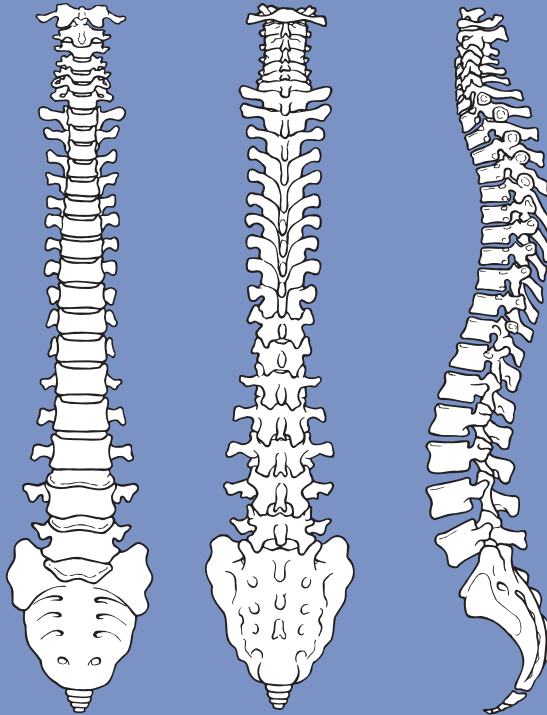




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British Association of Spine Surgeons

# Lumbar Facet Joint Syndrome – Injection Treatment



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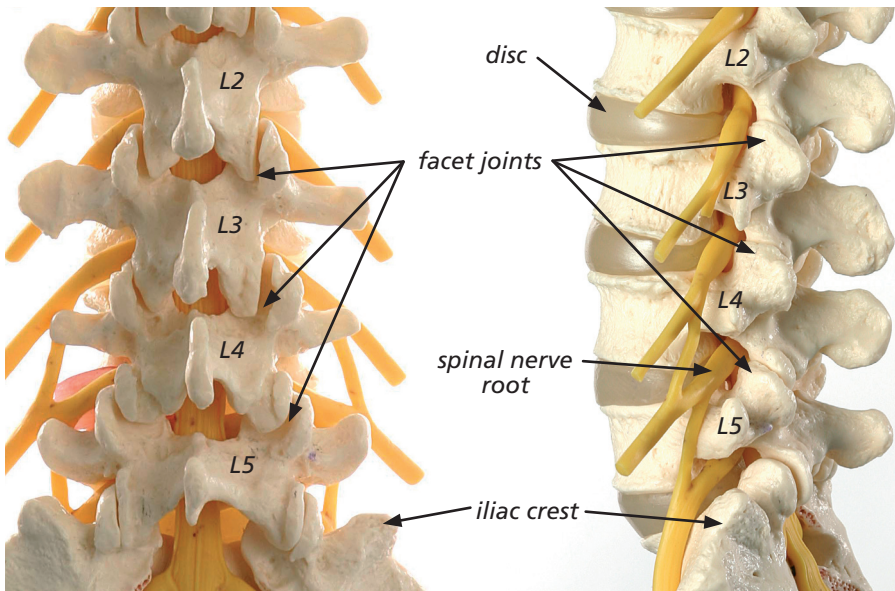
Imaging techniques, such as an X-ray or MRI scan, can reveal problems with the lumbar spine such as thinning discs, osteoarthritis or facet joint degeneration (wear and tear).

In the lumbar spine, there are five bones (vertebra) and in between each bone is an intervertebral disc which acts as both a spacer and a shock absorber. The bony spine and discs are surrounded by muscles (core muscles) and at the back of each spinal vertebrae is a pair of interlocking and moving connections called facet joints, where some of these muscles join to. These joints slide over each other enabling the spine to bend and twist. Both joint surfaces are coated with a moist cushioning tissue (cartilage). A small capsule surrounds each facet joint and provides a lubricant for the joint and contains nerve fibres that give warning when there is irritation or inflammation.

### Model of the lumbar spine showing the facet joints and nerve roots

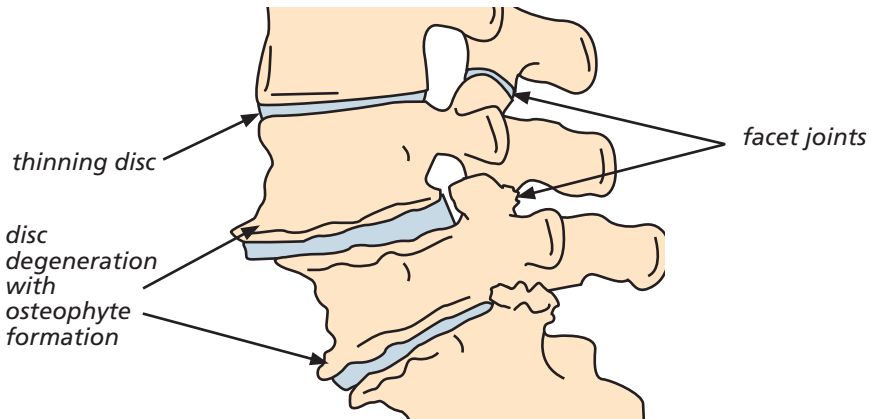
**Back view**

**Side view**



Over time, the intervertebral discs lose water and their flexibility, elasticity and shock-absorbing characteristics (disc degeneration). As the disc degenerates, it becomes thin and the pressure or load on the facet joints becomes greater. If the muscles surrounding the spine also become weaker, then more stress is placed on the discs and facet joints.

### Diagram showing the degeneration in the lumbar spine



Just like any joint in the body, the facet joints can become inflamed due to the wear and tear on the cartilage surface and resulting arthritis. This can cause pain and stiffness, usually in the lower back, which can radiate (travel) over the hips and into the groins and thighs. This is typically called 'hands in pocket' pain because the pain is felt in the area where your hands travel, when putting them into a trouser front pocket. The pain suffered from facet joint degeneration can often be mistaken as a problem with the hip joint, as it can be very similar.

Typically facet joint pain and associated muscle spasms, often referred to as facet syndrome, come and go. People often report increased pain after prolonged periods of inactivity like sleeping, sitting or standing too long. Most people complain that pain is most pronounced first thing in the morning,

decreases throughout the day if they are moving about and become worse again later in the evening. Pain can also be brought on by twisting movements of the spine or leaning backwards (extension). Changing your position regularly can improve the symptoms but be careful not to get out of bed or a chair too quickly, as the spinal muscles can spasm and 'lock' to prevent joint irritation, causing a sharp pain across the lower back region which seems to prevent you from moving for a short while. This is typically what happens when people say that their 'back has gone'.

Being overweight will also increase the load on the facet joints and increase the symptoms experienced, so losing weight can help significantly.

If symptoms are prolonged and interfering with day-to-day life, an injection of anti-inflammatory medicine direct to the source of irritation, can be beneficial and provide excellent pain relief. This should be followed a week or so later by an ongoing exercise program to strengthen the core muscles and help reduce the likelihood and severity of pain returning. Injection therapy should not be considered the only treatment for low back pain. Continued rehabilitation and stronger muscles for your own 'internal corset' is vital for the future 'health' of your spine.

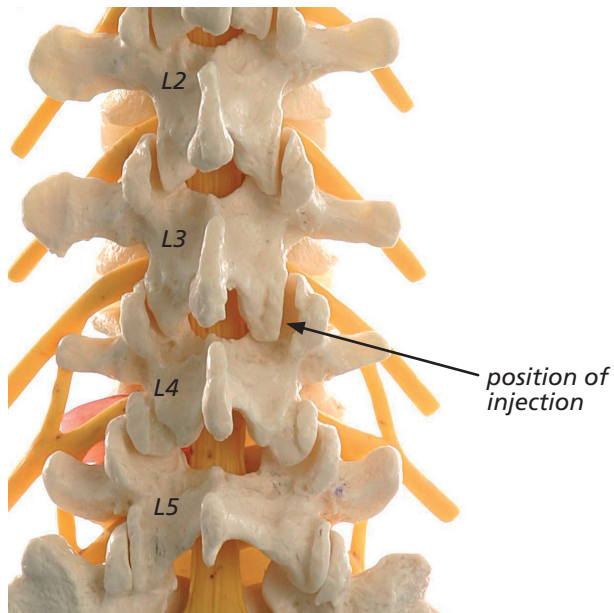
Facet block injections can also be performed as a diagnostic tool to help your specialist understand your condition. If there is pain relief following the injection, even if only temporary, it can confirm that the back pain originates from the facet joints.

## **About the procedure**

The procedure is carried out with either intravenous sedation (so the patient is asleep) or under local anaesthetic injection, to numb the injection site and surrounding area. You will be

asked to lie down on a couch on your stomach, usually with your head facing to one side on a pillow. The skin on the back is cleaned with antiseptic solution. Live X-ray is then used as guidance to direct the needle into the facet joint capsule. A small volume of corticosteroid and/or local anaesthetic is injected. This usually only takes a few minutes to carry out, depending on how many joints are being treated.

### **Right L3/4 facet joint injection (back view)**



This procedure is carried out as a day case (no overnight stay) and can lead to a rapid recovery. The local anaesthetic can cause some temporary numbness for a few hours after the injection. Once the numbness has worn off, it is not uncommon for the pain to return, occasionally slightly worse than before, until the corticosteroid takes effect. This can take several days or even a few weeks as anti-inflammatories take some time to reduce the inflammation surrounding the spine.

You should continue to take your usual pain relief medication until you begin to feel the benefit of the corticosteroid. It is important not to stop taking certain pain relief medication suddenly, such as, morphine or neuropathic medication (gabapentin, pregabalin or amitriptyline). It will be necessary to gradually 'wean' yourself off them – your GP can advise you if necessary.

Eighty percent of patients will experience significant benefits from these injections. However, the duration of benefit is variable and may last a few weeks, months or years. For a considerable number of patients, the injections can provide excellent pain relief enabling you to continue with physiotherapy, keep active and possibly lose weight if necessary. However, some patients who have had an episode of facet syndrome are at an increased risk of having a further episode. It may be possible to repeat the injections, if the first has been helpful, although not straight away. Most specialists would wait at least six months before repeating them.

If the symptoms have not improved after six weeks or the relief only temporary up to that point, then in certain circumstances, the next stage may be to refer you to a Pain Clinic for further assessment or treatment.

## **Risks and complications**

Fortunately, there are very few risks associated with facet joint injections. Very uncommon risks include:

- bleeding. You must inform your consultant if you are taking tablets used to 'thin the blood', such as warfarin, rivaroxiban or clopidogrel. It is possible you may need to stop taking these before your injection. If your procedure is scheduled with less than a week's notice, please check with your consultant or nurse which drugs need to be stopped to prevent this being delayed;

- infection. Although this is rare, it is important that the skin on your back is clear of skin conditions like psoriasis or eczema as these can increase the risk;
- facial flushing or (ladies only) interference with the menstrual cycle or post-menopausal bleeding. This can be a temporary side effect of the steroid;
- a rise in blood sugar levels for a few days for people who have diabetes;
- or rarely, a needle injury to the dura (the membrane around the nerves). This is usually apparent at the time of injection and can result in a small leakage of the cerebrospinal fluid (CSF), which can lead to a headache (when standing and walking) for a few days afterwards. If this does occur, you may be advised to lie down for a few days until the leakage stops.

Sometimes however, it is difficult to place the needle and inject directly into the joint space due to the presence of bony overgrowths. In this situation, the pain relief from the injection may not be quite as effective.

## **What to expect in hospital**

After the injection, you will be helped back into bed and taken to the recovery ward for a short while, where a nurse will check your blood pressure and pulse. Oxygen may be given to you through a facemask to help you wake up, if you were given sedation. You will then return to the ward.

## Going home

You will normally be allowed home within a couple of hours of having had the injections, once you are up and about.

If you have had intravenous sedation, you should not drive for 48 hours and a responsible adult **should** remain with you overnight. Please arrange for either a friend or relative to collect you from hospital.

If you qualify for patient transport and are likely to require this service, please arrange this through your GP before admission.

## Work

You may be advised to take the next day off work, if you had intravenous sedation, however, you may feel that you need longer if the pain persists. It can take several weeks before the full benefit of the injection takes place. The hospital can give you an off-work certificate or you can ask your GP.

## Follow-up

Your surgeon will advise you if you need to attend clinic after your procedure, or how to request a further clinic review if necessary. If you have any queries about the information in this booklet, please discuss them with the ward nurses or a member of your consultant's team.

Produced, researched and revised by spinal nurse specialist Helen Vernau on behalf of the BASS Consent and Patient Information Committee.

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