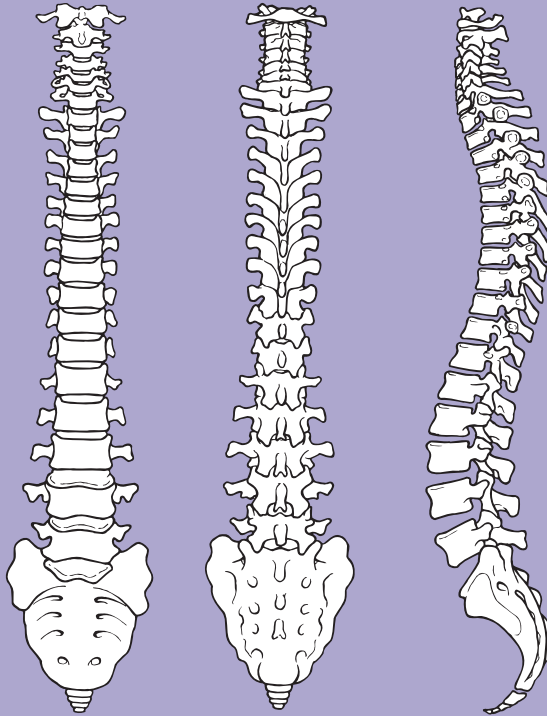




**B A S S**  
British Association of Spine Surgeons

# Pars Injection for Lumbar Spondylolysis



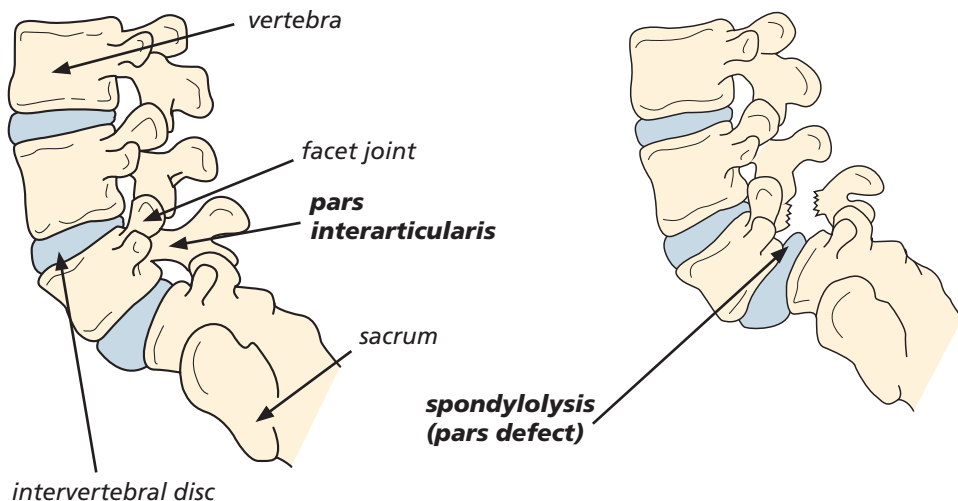
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Following your recent investigations and consultation with your spinal surgeon, a possible cause for your symptoms may have been found. Your X-rays and/or scans have revealed that you have a **lumbar spondylolysis**.

This is a stress fracture of the narrow bridge of bone between the facet joints (pars interarticularis) at the back of the spine, commonly called a **pars defect**. There may be a hereditary aspect to spondylolysis, for example an individual may be born with thin vertebral bone and therefore be vulnerable to this condition; or certain sports, such as gymnastics, weight lifting and football can put a great deal of stress on the bones through constantly over-stretching the spine. Either cause can result in a stress fracture on one or both sides of the vertebra (bone of the spine).

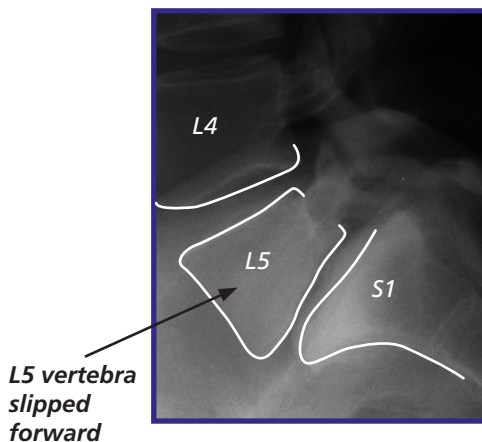
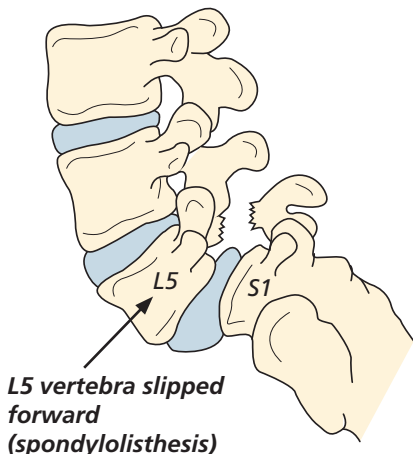
Many people are not aware of their stress fracture or experience any problems but symptoms can occasionally occur including lower back pain, pain in the thighs and buttocks, stiffness, muscle tightness and tenderness.



If the stress fracture weakens the bone so much that it is unable to maintain its proper position, the vertebra can start to shift out of place. This condition is called **spondylolisthesis**.

There is a forward slippage of one lumbar vertebra on the vertebra below it. The degree of spondylolisthesis may vary from mild to severe but if too much slippage occurs, the nerve roots can be stretched where they branch out of the spinal canal. This can cause pain, numbness, increased sensitivity or even weakness of the muscles in the part of the leg where that particular spinal nerve supplies (a condition known as sciatica).

### X-ray showing spondylolisthesis at L5/S1



Treatment varies depending on the severity of the condition. Most patients only require treatment such as physiotherapy, medication and manipulative therapy, combined with some lifestyle changes, like avoiding contact sports, weight lifting and leaning too far backwards (hyperextension).

If the symptoms are severe and ongoing, and have not responded to treatment, the pars defect can be tested to diagnose whether it is the reason you are experiencing pain. The stress fracture (pars defect) is injected with local anaesthetic and a steroid. The local anaesthetic will reduce pain in the short term while the steroid injection reduces the inflammation in the surrounding area. This can reduce pain and other symptoms caused by inflammation such as nerve irritation. The pars injection, if followed by relief from pain, can then confirm the diagnosis that the stress fracture is the specific source of your pain. For some patients the pain relief can be long-lasting.

## **The procedure**

The procedure is carried out under intravenous sedation so you will be asleep, lying on your stomach. The skin on your back will be cleaned with antiseptic solution. Live (video) X-ray is used to guide the needle directly into the pars defect before a small volume of corticosteroid and local anaesthetic is injected.

## **Risks and complications**

Fortunately, there are very few risks associated with pars injection. The most common side effect is discomfort, which is temporary. The other very uncommon risks involve infection, bleeding, or injury to the nerve or membrane surrounding the nerves (the dura).

## **What to expect in hospital**

Immediately after the injection you will be taken to the recovery ward, where nurses will monitor your blood pressure and pulse. Oxygen may be given to you via a face mask to help you wake up after the sedation. Once you are back on the ward, if you have any discomfort, the nursing staff will give you appropriate medication to control this. When you are fully awake you will be allowed to get out of bed.

## **Going home**

You will normally be able to go home a few hours after your injection, when you and your physiotherapist are happy with your mobility.

Please arrange for a friend or relative to collect you, as driving yourself or taking public transport is not advised for 48 hours after the sedation. A responsible adult should remain with you overnight. If you will need hospital transport, please arrange this through your GP before you come into hospital for your injection.

## **Work**

You will need to be off work for at least 48 hours or sometimes longer if your discomfort persists. The hospital can give you a sick certificate or you can ask your GP.

## **Follow-up**

You will be sent a clinic appointment for 8–12 weeks after your procedure. If you have any queries before this appointment please contact the nurse specialist for your consultant's team.

**If you have any questions 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 at The Ipswich Hospital NHS Trust, in association with and on behalf of the BASS Consent and Patient Information Committee.

Designed and illustrated by Design Services at The Ipswich Hospital NHS Trust.

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