

# Cardiff Spinal Clinic

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## **Posterior lumbar fusion (PLF)**

Posterior lumbar fusion is surgery to fuse the lower back vertebrae together. The incision will be in the lower back area over the appropriate vertebrae to fuse together. The muscles will be dissected to gain access to the back of the spine and usually decompression is performed along with posterior lumbar fusion. Bone graft will be placed along the edges of the spine underlying the rods.

During the procedure pedicle screws will be placed into the vertebrae and rods join them up. This holds the spine in the fused position.

Lumbar fusion is performed for conditions such as spinal deformity, spinal instability ie spondylolisthesis, scoliosis, kyphosis and occasionally for recurrent disc prolapse.

**Before posterior lumbar fusion:** you will be seen at the pre-assessment clinic where you will be further assessed, and the operation discussed. You will sign a consent form for the surgery and the risks and benefits discussed. You will be given information to take home with you in respect of the consent with regards to risks and benefits and British Spine Registry information.

If you are taking any anti-inflammatories or blood thinning medication, then this needs to be voiced in order for those to be stopped appropriately before surgery.

**During the posterior lumbar fusion:** an incision is made in the lumbar spine and the muscles on either side of the spine are dissected and retracted to gain access to the bony elements of the spine.

Using x-ray, the appropriate levels will be identified, and screws placed into the pedicles into the vertebrae and again x-rays are used to confirm placement of the screws. Two rods will join up the screws on either side and bone graft will be placed around the rods and to the side of the spine. If decompression is to be performed, then it will be performed at this stage. A drain will be placed, and the wound closed.

The surgical time would normally be between two to four hours.

**After posterior lumbar fusion:** you will be transferred to the recovery room before being transferred back to your room on the ward. It is common to have a PCA pump to administer pain relief. The drain which has been placed will be removed after one to two days and normal hospital stay is approximately two-three days. You will be mobilised with the physiotherapists and taught exercises to do and you will be

discharged once your pain relief and mobility is satisfactory. You will be sent home on medication for the pain. It is important to avoid twisting, lifting and bending in the initial period.

Physiotherapy will occur as an out-patient and follow up in the clinic occurs over the first twelve months normally for assessment and x-rays.

Fusion takes between six to twelve months and we would generally suggest not taking anti inflammatories for the first six weeks.

With regards to return to work, then this would normally occur between eight to twelve weeks depending on the occupation.

It is important to remember that posterior fusion is a complex procedure and sometimes a level of back pain can remain, and the aim of surgery is to reduce the pre-operative pain.