

## Patient education: Caudal Epidural steroid injection

### **WHAT IS IT?**

Caudal epidural steroid injection is an injection of anti-inflammatory steroid (cortisone) and local anaesthetic to help with leg pain due to spinal nerve compression (“pinched nerve” or “sciatica”). The injection is in the base of the spine (top of the buttocks).

There are other forms of epidural injection, such as those for pregnant woman via the back (“interlaminar”) or from the side of the spine (“transforaminal” or “nerve root sleeve”). These use different techniques to reach the epidural space which is the space where nerves leave to spine to reach the body. Caudal epidural is useful for numbing multiple nerve with one injection and can work where other epidural injections have failed.

### **WHY IS IT DONE?**

This is done to help with buttock, thigh or leg pain due to a compressed nerve in the spine. It is NOT effective for pain in the back itself (“axial back pain”).

### **HOW IS IT DONE?**

It is done in the operating theatre, with you lying face down and made sleepy (but not totally knocked out). There is an X-ray machine to guide the injection.

The injection is at the base of the spine (see picture). The skin is numbed with local anaesthetic, a needle is inserted through a ligament into the epidural space and a fine plastic tube is threaded up from the buttocks towards the head under x ray guidance to the site of nerve compression and medication is injected.

You will usually go home a few hours later.

### **WHAT ARE THE BENEFITS?**

Epidural steroid injections can significantly improve buttock, thigh and leg pain for a period of weeks to months. Sometimes this is enough to allow the nerve compression to get better on its own and never return. Sometimes repeat injections may be needed. Generally injections are limited to 2-4 times per year to reduce side effects from repeated cortisone injections. At PainScience we use

lower doses of cortisone as these have been shown to be as effective as higher doses with less side effects.

If you get a good response you should use this time to resume physiotherapy and normal activity.

## **WHAT ARE THE RISKS?**

Common risks:

1. The most common risk is that the injection may not work or may only work for a short period of time. This can occur if the pain is not due to nerve compression, if the medication doesn't reach the nerve, or in some people it just isn't effective
2. Temporary (hours) leg weakness or difficult passing urine- around 1 person in 10.
3. Minor bruising or tenderness at the site of injection for a few days is common in most people
4. Reaction to steroid – around 1 in 10. This may involve feeling “high” or “low” or increased blood sugar in diabetics for a day or two.
5. Severe headache. About 1 patient in 100 can get a severe headache. This may require a second epidural injection to treat.
6. Temporary increase in pain. Sometimes pain can flare up for a few days after the injection. This is not a concern as long as none of the “red flag” symptoms described below occur

Rare and severe risks

1. Temporary (less than 6 months) nerve injury to the legs: around 1 person in 1000
2. Severe bleeding in the spinal cord, severe spinal infection, permanent nerve injury or paraplegia: Around 1 person in 10 000-1 in 30 000.
3. Reaction to the anaesthetic or allergic reaction the medication. Both of these are rare.

## **“RED FLAG” SYMPTOMS TO LOOK OUT FOR AFTER YOUR PROCEDURE:**

The following may be serious signs and you should see your GP urgently or come to the emergency department. These are all very rare.

- Worsening leg weakness
- Loss of sensation around the bottom (e.g. numbness when wiping yourself with toilet paper) or loss of control of bladder or bowels
- Severe back pain (significantly worse or different from your normal pain, and getting worse with time)
- Fevers, especially if combined with back pain

Pictures showing the site of caudal injection and X-ray image from the side of needle insertion; X ray image from front; diagram of procedure.

