

**AUSTRALIAN AND NEW ZEALAND COLLEGE OF ANAESTHETISTS**  
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## **FACULTY OF PAIN MEDICINE**

### **Patient Information**

#### **Facet Joint Injections and Medial Branch Blocks**

This document aims to give you a better understanding of these procedures. All procedures are a means to an end that is to improve function. Your average pain score should decrease by 4 on a 0 to 10 scale.<sup>1</sup> The duration of pain relief will depend on whether it is diagnostic or therapeutic (hours to weeks and months). There are differences in the way that these procedures are performed depending on the individual patient, the institution and the doctor. Therefore, not all of this information may apply to you. Please discuss your individual circumstances and concerns with your doctor.

#### **Why am I having this procedure?**

Facet joints (also called zygapophyseal joints) are small joints of the spine that provide stability and help guide motion. They are found in the neck (cervical), upper back (thoracic) and lower back (lumbar). They can become painful as a result of arthritis, injury or mechanical stress. However, this is not necessarily the sole cause of long term back pain.

Two nerves called "medial branches" supply each facet joint. These nerves carry pain signals to the spinal cord and these signals will eventually reach the brain.

The facet joints and/or medial branch nerves can be injected with a local anaesthetic and/or steroid. There are two reasons for doing this:

- *Diagnosis:* If the local anaesthetic in the injection relieves your pain then it suggests that the facet joints are a source of your pain. Repeating the procedure a second time improves accuracy of the diagnosis. This can guide future treatment such as "radio frequency lesioning" of medial branch nerves. There is strong scientific evidence to support this.<sup>2</sup>
- *Therapy:* The steroid in the injection can reduce inflammation, reduce medial branch nerve sensitivity and provide long lasting pain relief. The duration of pain relief may vary from weeks to months. There is limited to moderate scientific evidence to support this.<sup>3</sup>

## How do I prepare for the procedure?

Please advise staff if you are:

- *Taking blood thinners* (especially warfarin and clopidogrel)
- *Diabetic*
- *Pregnant* (or any chance of you being pregnant).
- *Allergic* to iodine, betadine, shellfish, local anaesthetics, or steroids.
- *Unwell* (especially if you have an infection)

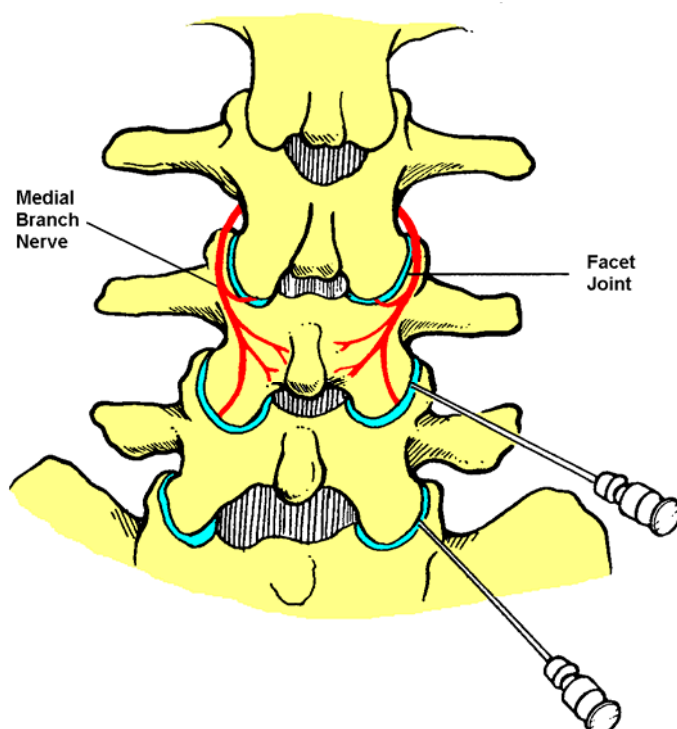
Staff may advise you to:

- Fast
- Take your usual medications (apart from those mentioned above)
- Arrange for someone to accompany you home

## What does the procedure involve?

After arriving and completing the necessary paperwork:

- You will be asked to change into a hospital gown
- A small cannula may be inserted into one of your veins.
- You may be given a mild sedative, but you will usually be awake throughout the procedure.
- Your heart rate and blood pressure are usually monitored throughout the procedure.
- You will lie face down on an x-ray table, the skin over the area to be injected is cleaned with an antiseptic solution, and sterile drapes applied
- A local anaesthetic is injected into your skin
- An x-ray machine is used to guide a small needle into the facet joint and/or onto the medial branch nerve. An x-ray dye (contrast) may be used to confirm the position of the needle.
- The local anaesthetic and/or steroid solution is injected.
- Multiple injections may be required.



- The procedure usually takes 15 to 30 minutes, plus recovery time.

**What happens after the procedure?**

- You will be monitored in a recovery area until you are ready to go home (usually 20-60 minutes).
- It is preferable to have someone take you home and stay with you for the next 24 hours.
- If you have received any sedation during your procedure, the effects of these medications may last for up to 24 hours. You may not remember some of the information given during the procedure. This is a normal side effect of the medication. For the next 24 hours you should not drive a vehicle, drink alcohol, operate machinery, make important decisions, sign legal documents or travel unaccompanied
- You will be given a pain relief chart to fill out. Please bring this to show the doctor at your next consultation.
- Please remove the dressing the day after the procedure, when you next wash.
- The pain may return when the local anaesthetic wears off. Some people experience an initial increase in pain and stiffness that may continue for several days. If necessary, an ice pack can be applied to the area, 20 minutes at a time, for 1-2 days following the procedure.
- If steroids are injected then it may take several days for the benefits to be noticed. Additionally, you may feel flushed in the face and/or notice a change in your mood for a few days. Diabetic patients may notice a rise in their blood sugar levels.
- After the procedure, care must be taken to avoid a rapid increase in your activities. Gradually increase your daily activities as tolerated. Discuss this with your doctor.
- If you notice any swelling or bleeding from the site or have any other concerns, please contact your General Practitioner, the Pain Management Unit, or the Emergency Department of your local hospital.

**What are the risks of the procedure?**

All invasive procedures carry the risk of complications. In general the risk is low, but includes:

- Discomfort at the site of the injection
- Worsening of your pain (probably a temporary "pressure effect" from the injection).
- Infection
- Bleeding
- Allergic reaction to the medications.
- Fainting
- Nerve damage (due to direct trauma, the medication, infection or bleeding).
- Steroid-related side effects such as transient flushing, mood swings, high blood sugar levels (especially in diabetic patients). The manufacturer did not specifically design most steroid solutions for this procedure. Despite this, these medications have been widely used, over many years, for this procedure without significant complications.
- Risks of sedation, if used (see separate document)

## References

1. Zhou Y, Thompson S. Quality assurance for interventional pain management procedures in private practice. *Pain Physician*. 2008; 11(1):43-55.
2. Sehgal N, Dunbar EE, Shah RV, Colson J. Systematic review of the diagnostic utility of facet (zygoapophysial) joint injections in chronic spinal pain: an update. *Pain Physician* 2007; 10: 213-228.
3. Boswell MV, Colson JD, Sehgal N, Dunbar EE, Epter R. A Systematic review of therapeutic facet joint interventions in chronic spinal pain. *Pain Physician* 2007; 10: 229-253.