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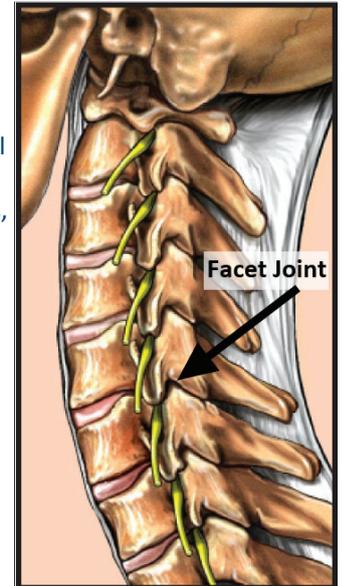
Cervical Facet Joint Injection

Causes of Neck pain

There are many causes of neck pain. Acute neck pain is often related to a muscle strain or ligament or disc sprain and most will settle with rest followed by a physical therapy programme. This is called a wry neck or acute torticollis. Some neck pain is more chronic and the pain recurs or persists of variable severity. The most common cause of chronic neck pain is from degeneration of the cervical spine related to aging and wear and tear causing osteoarthritis in the neck. This is also called cervical spondylosis.

The human neck has 7 bones called vertebrae. They are stacked on top of each other to create the cervical spine. Between the vertebrae, at each level of the spine there are 2 facet joints on the right and left. There is a single cervical disc at the front of the spine, the facet joints are at the back and between the 2 are spinal nerves and the spinal cord in the spinal canal. There are 3 main structures that cause pain from cervical spondylosis; Cervical discs, Facet joints, and Spinal nerves.

As you age the disc shrinks from daily wear and tear. This causes more pressure on the posterior structures of the spine with more pressure through the facet joints. This causes the cartilage to wear away to uncover the underlying bone and the joints become inflamed, swollen and painful. The joints also enlarge as they develop bone spurs, this is called facet joint hypertrophy. This process takes many years to develop. However, twisting and rapid movement can injure a facet joint causing immediate pain, much like spraining your ankle would.



Symptoms

Pain from facet joint arthritis will cause neck pain. It is often worse after periods of inactivity especially first thing in the morning on rising from bed. The pain can often radiate across the shoulders or between the shoulder blades. It is often associated with headaches. These headaches usually start at the back of the head, but if severe can be associated with generalised headaches. The pain can pass to the upper lateral arms. Any pain further down the arm is more typical of nerve pain. The pain can be constant with fluctuating severity or present with repeated acute increases of back pain. There is often tenderness overlying the joint with palpation. This is often associated with neck stiffness due to muscle spasm (called guarding). The pain may be more on one side if that joint is more arthritic and the pain is often worse on looking up than bending forward.

Diagnosis

Diagnosis begins with a history and physical examination. This will usually prompt investigations that can include X-rays, CAT scan, MRI scan and bone scan. These scans can help assess your anatomy but cannot completely confirm where the pain is coming from. This will often require a diagnostic injection. However, not all people with pain from facet joints require injections. Often the condition can be treated with physical therapy and the intermittent use of simple painkillers and anti-inflammatory medication. Some people know to avoid activities that will exacerbate their pain. But there are a small number of people for whom these measures do not work or they do not tolerate side-effects of medication. For those people more aggressive treatment may be required.

What are facet joint injections?

Facet joint injections are done as an outpatient by a radiologist or pain specialist. You are awake for the procedure. You do not normally need to fast before your procedure. Please inform your doctor if you are taking blood thinning medication such as Warfarin or Aspirin. Sometimes sedation is used if you are very anxious. You are first placed on an X-ray table and local anaesthetic is infiltrated into your skin at the site of entry. A needle is passed into the facet joint under X-ray guidance using either a fluoroscope (X-ray machine) or CAT scan. This is required for complete accuracy to confirm the correct joint/s. Once the needle is in the joint/s an injection of local anaesthetic (eg. Marcaine or Bupivacaine) and a long-lasting corticosteroid (e.g. Celestone) is usually performed. Sometimes only local anaesthetic is used if the injection is for diagnostic purposes only.

What are facet joint injections?

The procedure takes from 20-30 minutes but can vary depending on the number of joints injected. After a short period of observation to make sure you are OK you will be discharged. You should not drive. Someone should take you home. You will be able to walk after the procedure although you may experience arm weakness or numbness for several hours. It is important to try and continue some level of activity after the injection, especially if your pain normally is increased with activities such as bending or turning your neck. You will be given a pain chart to complete. This is important as it will help you communicate to your doctor the effect of the injection at your next visit. This will direct any further treatment if necessary.

How long will it last?

Most facet joint injections are done for diagnostic purposes only. The injection is not permanent. The effects will wear off. If the injection does not work at all, it suggests the facet joint/s is not the cause of your pain. Your doctor will need to re-assess your problem. If the injection significantly helps your pain it is presumed the facet joint/s is a significant contributor to your pain. Sometimes the improvement only lasts as long as the local anaesthetic, 6-8 hours. This however is still a positive test and is useful information for your doctor. If steroids are also injected, this may reduce the inflammation in the joint and provide longer lasting relief. The pain often returns after the anaesthetic wears off and before the steroids take effect, this can take a few days. The duration of benefit from steroids can be variable from a few days to a few weeks but rarely beyond this. You must understand that the condition underlying the source of pain is still present and the pain will recur.

Why should I have this done then?

Facet joint injections are not a treatment. They do not 'fix' the facet joint arthritis. This is a diagnostic test only. It is done to locate the source of your pain. If the source of your pain cannot be located, targeted treatment cannot be offered and only symptomatic treatment such as painkillers and anti-inflammatory medication and physical therapy can be offered. However, if the source of your pain can be located it opens the option of more permanent treatment options such as facet joint rhizotomy/ denervation/ ablation or in extreme cases, surgical fusion. Facet joint rhizotomy is performed by a pain specialist or radiologist using a similar procedure for a facet joint injection. During this procedure, instead of a needle an electrode is passed through the skin to the sensory nerves surrounding the facet joint. Once the electrode is in the correct position, a radiofrequency heating current is applied to deaden the nerve fibres that carry pain signals to the brain. If effective, the treatment should provide pain relief lasting at least 9-12 months and at times, much longer. The nerves will eventually grow back (regenerate) but the pain may or may not return. If the pain returns, you may have the procedure repeated.

Are there any side-effects/risks?

Side effects are rare after this procedure although it is possible to develop some bruising from the needle. You may experience some numbness in the injected area or sometimes down the arm. Other risks include:

- Pain / bruising at the injection site of injection or worsening pain
- Bleeding causing a deep haematoma
- Infection of the skin or the injected joint
- Steroids can cause elevation in blood sugar levels in diabetics
- Allergic reaction to the medication

You should notify the Radiology Department if you are taking any blood-thinning medication. If you have any concerns about complications, you should contact the Radiology Department where the procedure is to be undertaken and talk to the medical or nursing staff or contact your treating doctor.



Rhizotomy of the Nerve

What must I bring?

Please remember to bring any relevant X-rays or scans with you to your appointment. Please bring your Pain Chart to record your early response to the injection/s.

Please check our website www.brizbrain.com.au for more information.

Hospitals:

The Wesley Hospital, Auchenflower
St Andrew's Hospital, Spring Hill
Holy Spirit Northside Hospital, Chermide

Regional Clinics:

St Vincent's Medical Centre, Toowoomba
Sunshine Coast Private Hospital, Buderim
Tweed Day Surgery, Tweed Heads
United Medical Centre, North Lakes

St Vincents Medical Centre, Lismore
Fortus Medical Suites, Chermide
Mater Private Hospital, Rockhampton

