



## Pain Management

### What is Pain Management?

Pain management therapies treat painful or uncomfortable conditions by injecting medication into affected areas, reducing inflammation, blocking pain nerves, or promoting healing.

### These therapies are beneficial because they:

- Help reduce the amount of pain medication you must take
- Help you perform physiotherapy with greater comfort
- Allow you to maintain daily activities while awaiting other treatments such as surgery, or if very successful, to avoid surgery altogether

### What is Image Guided Pain Management?

Image Guided Pain Management injections utilize:

- Fluoroscopy (digital x-ray technology to produce real time images)
- Ultrasound (inaudible high frequency sound waves to produce real time images)

## Peripheral Injections

For the joints and other structures located in the following areas:

- Ankles and feet • Elbows, wrists and hands • Hips and pelvis • Knees • Shoulders

### Indications

The epidural space is a narrow area between the vertebral bones of the spine and the dural sac passing through them that contains the spinal cord and nerve roots. It is within the epidural space that a damaged disc or changes related to osteoarthritis impact spinal nerves to produce local back pain symptoms, sciatica pain, or both. Lumbar Epidural Steroid injections are indicated at or just below the level where a damaged disc or other issue is affecting adjacent nerve roots, or a Selective Nerve Root Block along the affected nerve itself.

### What to Expect

Once the patient arrives for their appointment, they will change, then a Canada Diagnostic Centres staff member will ask safety questions and provide information to the patient. The patient will then be brought into the fluoroscopy suite where technologists will prepare them for the injection. The Radiologist will perform the injection. The patient will then be observed for a short time in the recovery area to ensure there are no unexpected developments.

The patient may notice immediately that their pain is gone or has lessened, but may also have numbness or weakness in the leg on the injected side. These are both temporary effects due to the local anaesthetic injected and will last only for a few hours. As a result, we require patients to be driven to and from their appointment.

Pain may return later that day and soreness or aching may be present for a day or two. This is due to the mechanical process of needle insertion as well as initial irritation from the medications injected. Most patients should start noticing lasting pain relief by the third day as the steroid begins to take effect.

## Lumbar Spine Procedures

### Facet Joint Indications:

- Back pain more than leg pain
- Worst pain above belt line
- Morning stiffness fading with activity (OA)
- Pain exacerbated by sit-to-stand maneuver
- Pain worse with extension-rotation towards symptomatic side
- Radiation to groin/thigh



### Stage 1: Facet Joint Injection

A facet joint injection is a procedure used to either provide pain relief or determine the location of pain. The procedure involves injecting a small amount of anaesthetic along with a steroid medication. Pain relief is intended to help the patient tolerate a physical therapy routine to rehabilitate injured areas. If the patient is receiving more than 6 months of pain relief, they may continue receiving facet joint injections. If pain relief is less than 6 months, they may have an BBT to determine eligibility for RFN.

**Preliminary Imaging Required:** Prior to a facet joint injection, a lumbar spine x-ray is required. If your patient does not have a recent x-ray on file, we will take one the same day as the injection.

### Stage 2A: Branch Block Test (BBT)

BBT is a procedure where anaesthetic is injected around medial nerves connected to specific facet joints. Several levels of the spine are typically injected in one procedure. If the patient has marked pain relief immediately after being injected, the facet joint is then determined to be the pain source (typically 2-6 hours of pain relief if the BBT is successful). The patient will record their pain in a supplied pain diary, which is then collected by Canada Diagnostic Centres to determine if the procedure is deemed positive. An BBT is primarily diagnostic.

If the test is positive, the patient is booked for a confirmatory block, which if successful, would make them a candidate for RFN. If the test is negative, the patient is not a candidate for RFN at this time.

**Preliminary Imaging Required:** Prior to an BBT, a lumbar spine x-ray is required. If your patient does not have a recent x-ray on file, we will take one the same day as the procedure.

### Stage 2B: Radiofrequency Neurotomy

RFN is a procedure used to treat facet joint pain caused by degenerative changes or injury. This procedure involves the creation of a heat lesion on selected nerves to interrupt pain signals to the brain, effectively eliminating the pain. Tissues are heated to a temperature of 80°C produced with rapidly alternating electrical current of 2-4 watts, held for 80-90 seconds with an electrode tip. The procedure is well tolerated by patients and requires no sedation (only local anaesthetic). This procedure is often used to treat facet joint and SI joint pain.

## Advanced Spinal Injections

### What is a Lumbar Epidural Steroid Injection/Selective Nerve Root Block?

A lumbar epidural steroid injection is an injection of long acting anti-inflammatory medication (steroid) into the space around the nerve roots of the spine (usually into an opening on the side of the spine called a neural foramen). The steroid injected reduces inflammation and swelling of spinal nerve roots and other tissues surrounding it. This may in turn reduce pain, tingling, numbness and other symptoms caused by this inflammation, irritation or swelling. This injection can also be used to help identify which specific spinal nerve root(s) is the source of pain. When the injection is done for both diagnosis and treatment it is called a selective nerve root block. The injection is typically 2-3 ccs and consists of a local anaesthetic, long acting steroid medication and sterile saline.

## Pain Management – Therapy Options

Spinal injection areas located along the spinal column including the low back (lumbar spine), midback (thoracic spine), neck (cervical spine), and head can be treated.

- Degenerative disc disease
- Facet and sacroiliac (SI) joint arthritis
- Spinal nerve roots (sciatica)
- Headache



Scan this QR Code to view the full General Imaging brochure.



Toll-Free Ph 1.877.420.4232  
Toll-Free Fax 1.877.919.3291



Online  
CanadaDiagnostics.ca