

# Medial Branch Nerve Blocks

## What are these blocks?



The facet joints receive sensation from a medial branch nerve ending above and below.

The word block basically means the same thing as injection in the world of pain management. Medial branches are small nerve endings that come off of nerve roots and travel around the back of the spine to provide sensation to facet joints.

The facet joints are the thumbnail sized joints on either side of the spine all the way from the neck down to the sacrum.

By blocking the ability of the medial branch nerve ending to transmit pain signals, pain relief can be achieved.

## Why are medial branch blocks performed?

There are two reasons pain management doctors perform these injections. The first is for a diagnostic purpose. When an individual is having back or neck pain, it is helpful to know which level of the spine is causing the problem. While x-rays, physical exam and an MRI can be very helpful, it is the medial branch block which can diagnose specifically the source of an individual's pain.

If the injection is performed and pain relief is dramatic, then that particular level can be deemed to be the pain generator. In fact, it is very accurate in diagnosing the joint as the source of pain (Pain Physician 2007).

The second reason that medial branch blocks are performed is for therapeutic pain relief. While the blocks serve a diagnostic purpose, they can also provide pain relief for weeks to months.

One recent study showed that the average pain relief achieved with a medial branch block was three months and at the six month time frame, 68% of patients still had significant pain relief (Anand, 2007). This is an excellent amount of time, as the injections can then be repeated if desired with a similar expected outcome.

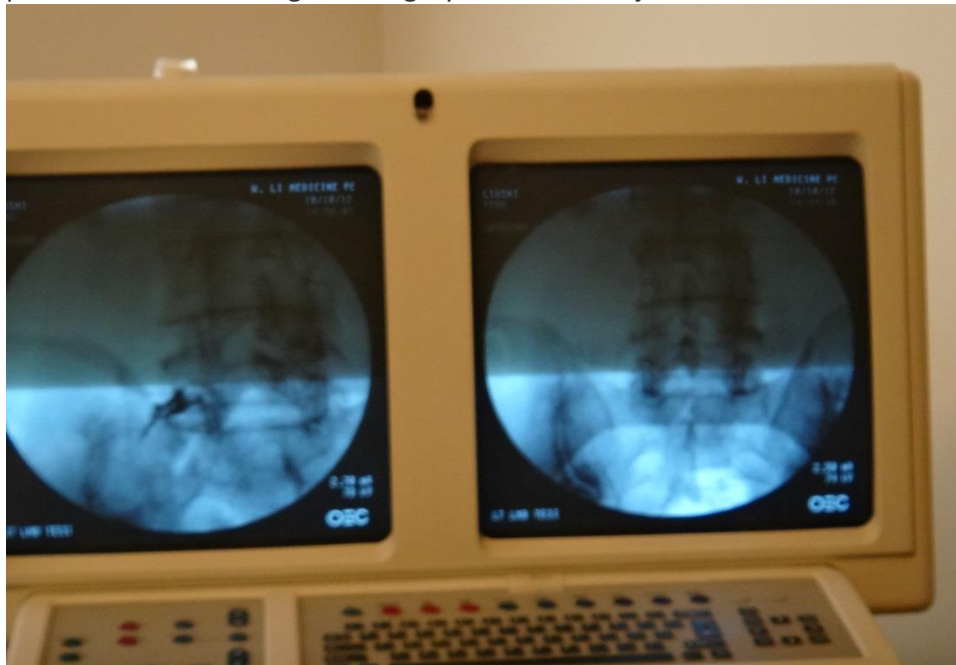
## For what conditions are medial branch blocks performed?

Because these injections are meant to block the sensory nerves supplying the facet joint they are indicated for suspected pain coming from the facet joint (facet syndrome). The pain is typically due to degenerative wear and tear arthritis, but it can also be due to injury to the joint capsule from a whiplash injury or some sort of trauma.

These injections are not meant for arm or leg pain due to a pinched nerve, as the area of injection is not in the spinal canal.

## How are these injections performed?

Pain management doctors perform these blocks as an outpatient procedure and either in a procedure room setting or a surgery center. The injections take



between 10 and 20 minutes, and usually fluoroscopy is used to ensure the highest accuracy.

Fluoroscopy is a real-time form of x-ray that will show The pain doctor which level is being treated.

Patients may receive IV sedation for the procedure, but it is not absolutely necessary. Or they may receive a Valium 30 minutes prior to the procedure by mouth. The other option is to simply numb up the skin and the soft tissues down to the area overlying the spinal joints being treated.

The pain doctor will position the needle close to the spinal joint being treated and then inject some contrast to ensure satisfaction with the positioning. At that point numbing medicine is injected over the area of the medial branches, and possibly steroid will be included or maybe phenol.

The phenol or steroid is added to hopefully increase the duration of pain relief. The medial branches actually come in to each spinal joint from above and below, so pain will move the needle for each area to provide optimal pain relief.

Once the procedure is completed, patients will be monitored for 30 to 60 minutes to make sure vital signs are stable and no allergic reaction occurs.

## How well do these injections work?

For the diagnosis of facet joint related pain, medial branch blocks work very well. If they provide 50 to 80% pain relief, insurance companies will approve a radiofrequency ablation (facet denervation) procedure when the pain relief wears off from the block.

Radiofrequency ablation has been one of the most revolutionary procedures in pain management. It has been able to provide well over a year of pain relief in most patients.

As mentioned, studies have shown that the average pain relief from medial branch blocks averages about three months. So in and of itself, these blocks are an excellent therapeutic method of facet pain treatment.

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

The risks associated with medial branch block procedures are extremely low.

There is a small risk of Infection, bleeding or allergic reaction. If a patient is taking blood thinners, they should be ceased 5 to 7 days prior. Check with your pain doctor for the specific timeframe.

There's also a risk of the injections not working well. Pain relief may not be obtained, and it may be that additional levels need to be treated to find the exact pain generator causing the discomfort.