



## Facet joint medial branch blocks (MBB's) and radiofrequency ablation (RFA)

### **What are the facet joints?**

Facet joints (cervical, lumbar, and at times, thoracic) are often implicated in patients with low back pain. These joints are diarthrodial joints with chondral surfaces, synovium, and meniscoid tissue. As such, they are susceptible to inflammation, chondral damage, and degeneration over time. It is estimated that as many as 15-30% of patient with low back pain have pain that originates from these joints. It is not uncommon to have a number of pain patterns when describing the pain from these joints. Oftentimes patients will describe the pain as a deep, dull, constant ache or any combination of the above. The pain can be over the mid-line of the back and neck and oftentimes will involve the shoulders and upper back (if cervical/neck facet joints are causing pain) as well as into the hips, buttocks, and down the legs at times (for lumbar facet joints as the source of pain).

Each facet joint is innervated by two nerves. These nerves are medial branches of the dorsal rami of the spinal nerves at that level. The doctor will discuss the reasons behind performing medial branch blocks vs. facet joint injections during your clinic visits. With medial branch blocks you will go through **two diagnostic procedures** (on separate days) to ensure that it is indeed the facet joints that are causing your pain. The doctor will be looking for at least 50% relief with each of these diagnostic procedures prior to proceeding as this is important to make sure that this is the source of your pain. If it is determined that this is the case then you will be offered what is called radiofrequency ablation (RFA) of the nerves that supply sensation to the facet joints themselves. The RFA procedure is the same as the MBB's (with regards to needle positioning) with the exception that it usually takes longer for instrument setup and the RFA itself. This is a common procedure and the "lesion" area is quite small but big enough that it disrupts the painful sensation coming from the diseased joint. Only one side (left or right) is done at one time as often time's pain can be referred from opposite sides and it is important that this is assessed.

### **Preparing for the injection**

Refer to the pre-procedural paperwork that was given out during your office visit prior to leaving. This packet will cover the important aspects of preparation for the injection. You may be offered sedation for the radiofrequency ablation procedure.



## **What to expect**

When you arrive at the ASC (surgery center) for your injection you will be "checked in" by the nurses at the center. You will be asked about your past medical history, medications you are taking, and vital signs will be taken. If you were on a blood thinner called Coumadin (warfarin) a sample will be obtained in order to ensure that your levels are appropriate for the injection as this medication should have been stopped 5 days prior to the injection date. This portion takes time so it is important that you show up early for this to be completed.

You will then be taken back to the operating room where you will lay on your stomach for the procedure. The fluoroscopy unit (x-ray) will be positioned over you in order to identify the important anatomical landmarks for the procedure. When the correct position is identified your skin will be "numbed" with a very small needle and local anesthetic. This usual is very short lived. When the skin is anesthetized the doctor will advance a small needle to the area where the medial branches reside along the spine with the help of the x-ray for guidance. You may notice some discomfort as the needle traverses the deep muscles next to the spine but again this is short lived. At that point the doctor will inject a local anesthetic and remove the needles. You will then be taken to the recovery room and given a pain diary and instructed to call us at the clinic in 24-48 hours with the percentage relief from your injection.

Should the RFA be undertaken (given the appropriate response to the two diagnostic MBB's as outlined above) a similar setup will be undertaken as above. However, after placement of the needles the doctor will "test" to make sure he is in the correct position. After the testing is complete the area will be numbed with a local anesthetic and the RFA carried out. After this is completed a very small amount of steroid will be injected in order to decrease inflammation and the needles will be removed and you will be taken to the recovery room where you will wait for 15-30 minutes in order to monitor you. Depending on how many joints are involved the procedure itself could take anywhere from 30-45 minutes. You will be asked how your pain is doing after the procedure. The local anesthetic will make the area feel good for several hours but eventually "wears off". The RFA ablation usually takes at least 10-14 days (sometimes longer) to start to be noticed in terms of pain relief.

## **After your injection**

Apply ice as needed to the area for the first 24-48 hours as this may help with some of the pain from the needle entry. You are welcome to resume PT immediately unless instructed not to do so by another provider. You will be given a sheet of paper discussing the procedure and the medications used. Most of the time you will be asked to be seen in the clinic within a few weeks to see the improvement you received with the injection.