

Medial branch nerve block of the facet joint

Overview

A medial branch nerve block injection temporarily stops pain signals from a facet joint. It is a test to see if a facet joint is causing your pain. The exact source of back pain can be hard to pinpoint. The test results help guide a more effective treatment plan. If the block is successful, then a nerve ablation may provide longer-lasting relief.

What is a facet joint nerve block test?

Facet joints are pairs of synovial joints at each vertebra of the spine (Fig. 1). Each facet joint has tiny sensory nerves above and below that carry pain signals. A medial branch block (MBB) is an injection of anesthetic near the nerve pain receptors of a facet joint (Fig. 2). The anesthetic briefly "blocks" pain, in the same way a dentist numbs your jaw before working on your teeth.

Diagnostic nerve blocks use a fast-acting anesthetic with a short duration (hours) of pain relief to test the nerve. If numbing them relieves your pain, it confirms the facet joint is the source. If you still feel pain, then that specific joint is not the source. Your pain is coming from somewhere else and that answer is valuable.

Most insurance plans require two MBB injections, done several weeks apart, to test if pain relief is repeatable and not a false-positive result.

If two MBB injections confirm the pain is coming from the facet joint, then you may be eligible for a nerve radiofrequency ablation (RFA).

Who is a candidate?

If you have pain suspected from a facet joint, then you may benefit from a medial branch block injection. Typically, it is for people who have not responded to oral medication or physical therapy.

Nerve blocks use X-rays and should not be performed on people who are pregnant, have an infection, or have bleeding problems.

What happens before treatment?

The doctor will review your medical history and any imaging scans. They will plan the best location and number of injections. The benefits and risks will be explained, and you will sign consent forms. Be prepared to ask any questions at this appointment.

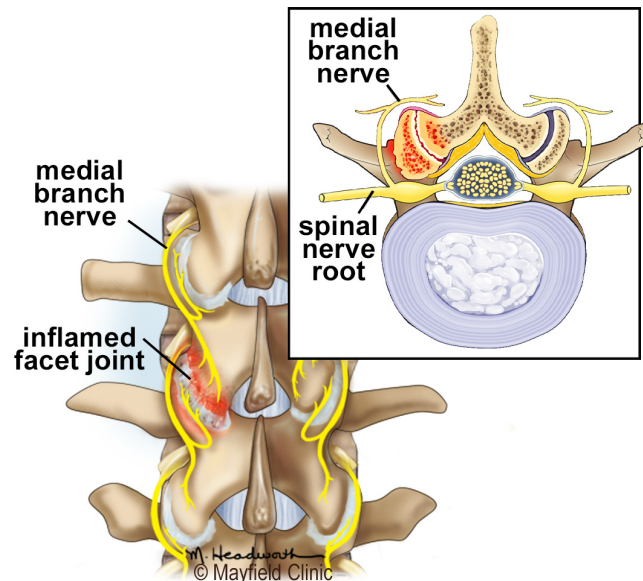


Figure 1. Wear and tear to the facet joints can cause arthritic pain and swelling. The irritated joint sends pain signals to the brain via small nerves called medial branch sensory nerves.

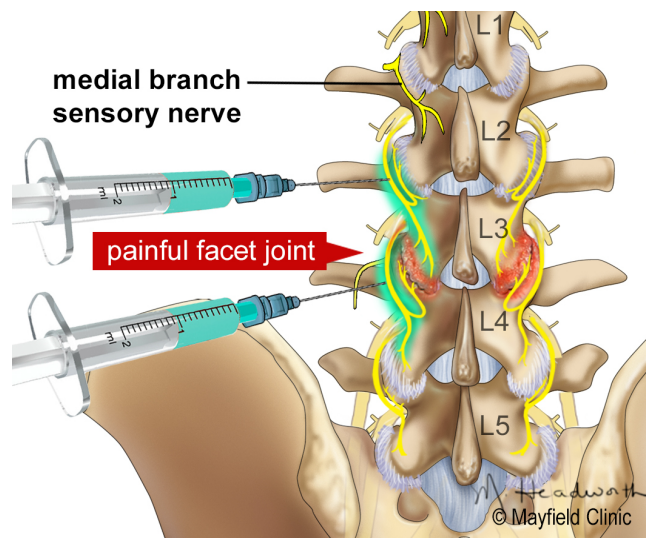


Figure 2. Anesthetic (green) is injected along the medial branch nerves above and below the inflamed facet joint to block pain signals.

Bring a list of medications and vitamins you take and any allergies you may have (iodine contrast, latex, betadine, drugs). If you take aspirin or blood thinners, ask the doctor if you need to stop them before the procedure. Discuss all medications with

your doctors. Including the one who prescribed the drug and the doctor who will perform the injection.

The injection is performed in a procedure suite with x-ray fluoroscopy. Wear loose, comfortable clothes and shoes. Arrange for someone to drive you to and from the appointment.

You may take your normal medications the day of the procedure. **Exception:** DO NOT take NSAIDs or pain medications as they can affect the test results.

What happens during treatment?

The procedure usually takes 15 to 45 minutes.

Step 1: prepare the patient

You will lie on your stomach. The skin is numbed with a local anesthetic to reduce discomfort. You will be awake so you can give feedback to the doctor. A low dose sedative, such as Valium or Versed, may be given to help you relax.

Step 2: insert the needle

Using X-ray fluoroscopy, the doctor places a hollow needle into the area near the nerve. Fluoroscopy allows the doctor to see the needle in real-time and guide it to the correct location. You may feel a brief sting or pressure, but it usually hurts less than the underlying pain being treated.

Step 3: inject the medication

A contrast dye may be injected to confirm needle placement and flow of medicine. The anesthetic is injected (Fig. 2). The needle is then removed. One or several blocks may be performed depending on where your pain is located.

What happens after treatment?

You are moved to a recovery area for a short time. The nurse will go over discharge instructions, then you can leave. If you receive a sedative, someone must drive you home.

The block will only last 4 to 5 hours. During that time, do activities that normally cause pain. Keep a pain diary for the next 5 hours and record your percent of pain relief to track if the injection is effective. You may notice a slight increase in pain as the numbing medicine wears off.

You may resume full activity the next day. Soreness at the injection site is relieved by using ice and taking Tylenol.

- Do not shower until the next day.
- Do not submerge or soak the injection site in water (bath, pool or tub) for 48 hours.

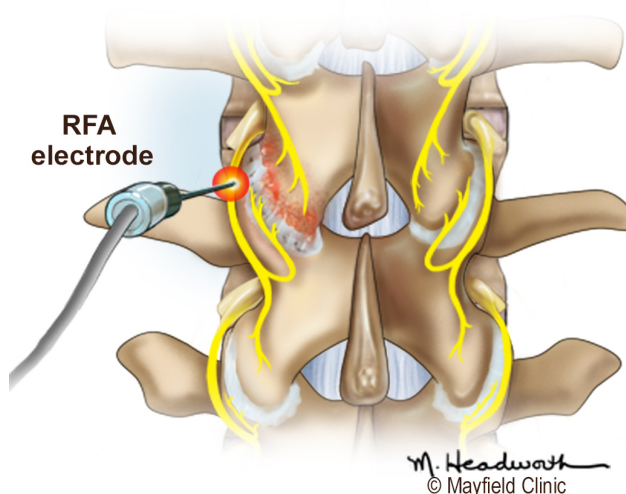


Figure 3. A nerve radiofrequency ablation (RFA) uses a heating current electrode to burn the medial branch nerve and stop the pain signals.

- Remove the bandage in the morning.
- The day after the injection, you will report your percent of improvement to the doctor's office.

What are the results?

The doctor will recommend further treatment based on how much pain relief you get after the block.

If you experience 80% pain relief immediately after the injection, the block is considered successful. Two successful MBB injections means you may be a candidate for a **radiofrequency nerve ablation** procedure. Nerve ablation uses a heating current to deaden the nerves (Fig. 3). It often provides 6 to 12 months or more of pain relief.

If you do NOT experience marked pain relief, then that specific nerve / joint may not be the source of pain. Another nerve block may be needed or in a different location. Further workup will be done to find the source of your pain.

What are the risks?

A MBB is generally a safe procedure with low risk of complications. Possible risks include: bleeding, infection, allergic reaction, temporary increase in nerve pain, dizziness, neuritis, neuroma, localized numbness, leg muscle weakness and/or head drop.

Sources & links

If you have questions, please contact Mayfield Brain & Spine at 800-325-7787 or 513-221-1100.



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