

What is a medial branch neurotomy and why is it helpful?

A medial branch neurotomy is a non-surgical procedure which lesions (burns) the nerves carrying pain from your facet joints to your brain. It is likely, we have previously numbed the medial branch nerves as a “test” to see if you were a candidate for the neurotomy procedure. The neurotomy prevents the pain signal from traveling through these nerves, thereby interrupting the pain signal to your brain. These medial branch nerves do not control any muscles or sensation in your arms or legs. The medial branch nerves do control small muscles in your neck, mid or low back, but a neurotomy will not permanently harm these muscles. If effective, the treatment should provide pain relief lasting at least 9-14 months and at times much longer.

What will happen to me during the procedure?

An IV will be started and we will give you adequate IV relaxation to keep the procedure comfortable. After lying on an x-ray table, the skin over your neck, mid-back or low back will be cleansed. Next, the physician will numb a small area of skin, which may sting for a few seconds. The physician will use x-ray guidance to direct a special (radiofrequency) needle along side the medial branch nerves. A small amount of electrical current will then be carefully passed through each needle to assure it is only next to the target nerve. This may briefly recreate your usual pain and may cause a muscle twitch in your neck or back. The nerves will then be numbed to prevent pain while the nerve is being lesioned. This process will be repeated for usually 1-5 additional nerves. The entire procedure usually takes between 30-90 minutes.

What should I expect after the procedure?

On the day of the injection you should not drive and you should avoid any strenuous activities. On the day after the procedure, you may cautiously try to return to your regular activities, but most rest for an additional 1-2 days. Your neck or back will usually be very sore during then next several weeks. This pain is usually caused by muscle spasms and irritability while the targeted nerves are dying from the heat lesion which may take 7-21 days. Your physician will give you medication to treat the expected pain. Pain relief usually is not experienced until about 3 weeks after the procedure when the nerves have completely died. On occasion, your back or neck may feel odd or slightly weak for several weeks after the procedure.

The nerves will eventually grow back (regenerate) but the pain may or may not return. If the pain does return, you may want to have the procedure repeated (usually with equal success). Some patients never have a return of their pain, but we can not predict when this will occur.

We are frequently asked, “If you remove my ability to feel these joints will I injure them or other parts of my back”? There is no scientific evidence to support this happening. In the many years that we have been following patients after medial branch neurotomy, we have not seen this occur.

There is a rare chance (less than 5%) that you may have increased nerve pain following the procedure for 1-3 months. This may include skin sensitivity or a sunburn sensation. It is treated with specific medications and usually resolves within several months. Increased nerve pain, however, is very common and to be expected following neurotomy at the C2-3 level of the neck. Symptoms include burning, itching, and surface sensitivity in the skin behind the ear and base of the skull. These symptoms usually resolve in 3-5 weeks.