



Basivertebral Nerve Ablation Patient Education

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WHAT IS BASIVERTEBRAL NERVE ABLATION?

The basivertebral nerve carries pain signals from the vertebral body endplate, which is the portion of the vertebral body that interfaces with the adjacent intervertebral disc. Disruption of the vertebral body endplate or the presence of Modic Changes Type 1 (inflammation) or type 2 (fatty bone marrow replacement) within the vertebral body are associated with pain. These pain signals are carried by the basivertebral nerve, which may be a source of your chronic low back pain. Basivertebral nerve ablation is a procedure that uses a specialized machine and equipment that generate radiofrequency current and heat in order to disrupt pain signaling. The current is passed through a conductive probe that is strategically placed within the vertebral body at the known location of the basivertebral nerve. The nerve is thus ablated and unable to carry pain signals.

HOW IS THE PROCEDURE PERFORMED?

Basivertebral nerve ablation is performed in the operating room at an ambulatory surgery center. Typically, general anesthesia is used during the procedure for patient comfort. During the procedure, the patient lies on his/her stomach. The skin of the low back is cleansed with antiseptic solution and a sterile field is created. Local anesthetic is used to numb the skin and underlying soft tissues. Under X-ray (fluoroscopy) guidance, an introducer needle is advanced down to the pedicle (bone) of the targeted level. The introducer is advanced into the bone and then a curved instrument is inserted further into the vertebral body to the known location of the basivertebral nerve. The radiofrequency probe is then placed through the introducer needle. The radiofrequency ablation is then performed. After, the probe and introducer needle is removed, the skin incision is closed and a bandage is applied. Overall, the procedure takes about 60-90 minutes to complete.

HOW LONG DOES THE EFFECT LAST?

The effect will hopefully last for an extended period of time. Several clinical trials have reported improved pain and function lasting several years.

WHAT IS THE NEXT STEP AFTER THE PROCEDURE?

You should minimize strenuous activity for 1-2 weeks. After that, you may resume normal activity level as tolerated. You may have increased pain for the first 1-3 weeks after the procedure. You will have a follow-up appointment with Dr. Michalik in approximately 6 weeks or sooner if needed.

WHAT ARE THE RISKS AND SIDE EFFECTS?

Serious side effects and complications are rare. The most common problem after the injection is having pain in the area of the procedure for a 1-3 weeks. Sometimes, steroid is used to minimize post-procedure pain and some individuals may temporarily develop headaches, facial flushing, higher than normal blood pressure, and high blood sugar due to the steroid. The other potential complications are infection, bleeding and nerve injury. These complications are minimized by using sterile technique and fluoroscopic (x-ray) needle guidance.