

Diagnostic Medial Branch Block

Introduction

Some people have pain in the neck, middle back, or low back. A medial branch block, or MBB for short, is an injection of a numbing medication to help the doctor diagnose the source of the pain. In many cases, it can also treat the pain.

If your healthcare provider recommends a medial branch block, the decision whether to have the procedure is yours.

This reference summary explains the benefits and risks of the medial branch block procedure. It discusses what to expect before, during and after the procedure.



The Spine and Medial Branch Nerves

The spine protects the spinal cord and nerves that go to different parts of the body. The spine is formed of solid vertebrae. The vertebrae are separated by softer disks.

Two joints link two vertebrae together. These are the facet joints. They are located toward the back and on both sides of the vertebrae. These joints allow the vertebrae to move painlessly. The facet joints also allow the spine to bend and twist within certain limits. This protects the spine from injury.

Nerves travel through the spine and branch out to send messages from the brain to other parts of the body. Medial branch nerves are very small nerves found near the facet joints. These nerves allow a person to feel pain from the facet joints.



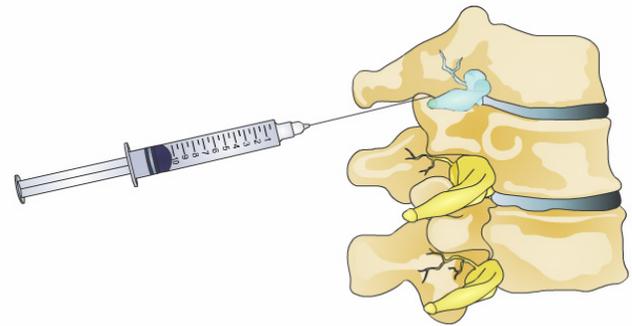
Medial Branch Block

A medial branch block is an injection of numbing medication around the medial branch nerves.

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A medial branch block is called a block because it numbs the nerve and blocks its sensations. A medial branch block may be used to diagnose the cause of pain in the neck, middle back, or low back. Sometimes it may also be used to treat pain caused by the facet joints.

The aim of a medial branch block is to numb the medial branch nerves. This will lessen or stop pain if the facet joints are the source of the pain. If the pain does not stop after the injection, then the doctor knows that the pain is not from the facet joints.



Medial Branch Block

The numbing medication will be injected around the medial branch nerves in the neck, middle back, or lower back, depending on where your pain is located. A needle is used to deliver the medication. The needle is placed with the help of an x-ray machine. The x-ray machine will display images on a screen.

Contrast dye may be injected before the numbing medication. This makes the radiological images clearer, which helps the doctor make sure the needle is in the right place.

Sometimes a combination of medications is used for the injection. The first is a numbing medication to stop pain and help diagnose the source of the pain. The second is a steroid that decreases swelling around the nerve for long-lasting pain relief.

Your pain should disappear shortly after the injection if the facet joints were the cause. If the injection does not help, then something other than these nerves is likely causing your pain. The pain may disappear after the injection for a few hours but come back again after the numbing medication weakens. If a steroid medication was also injected, it will decrease the swelling and reduce the pain over the next few days. This usually means the medial branch block will have a long-lasting effect.

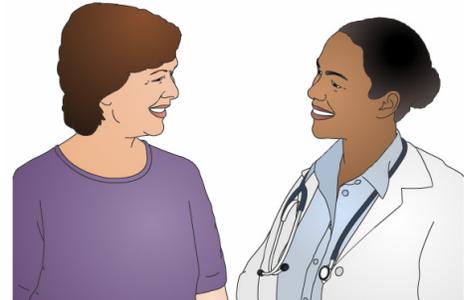
In some cases, the pain may come back after a few hours and not get better. If this happens, you may need a more permanent treatment option called radiofrequency neurotomy. Radiofrequency neurotomy uses an electric current that runs through a needle to burn the medial branch nerves. The electric current applies heat to the nerves, causing a lesion to form. The lesion interrupts the pain signals. This pain relief can last for up to a year or more.

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Preparing for the Procedure

Make sure to tell your healthcare provider about all the medications you are currently taking. This includes over-the-counter and prescription medications, as well as supplements and vitamins. Certain diabetes or blood thinning medications may need to be stopped before the procedure. Your healthcare provider will give you instructions.

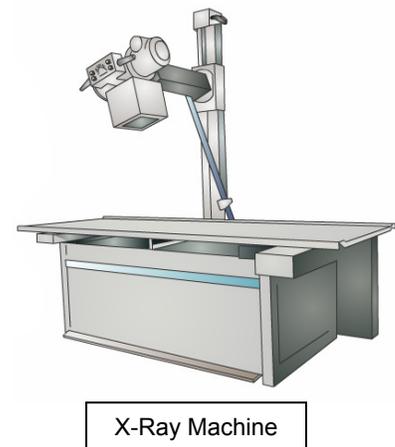
You may be told not to eat or drink anything after midnight the night before the procedure. However, a small amount of water may be used to take your medications in the morning.



The Procedure

Before the injection, the skin is disinfected and numbed with local anesthesia so that you will not feel the pain of the medial branch block. An x-ray machine will be used to guide the placement of the needle.

Dye may also be used. The dye can confirm the correct placement of the needle before the medication is injected. If the needle is correctly placed over the medial branch nerves, the medication is injected. This is usually not painful, although it may be uncomfortable.



After the injection of the medication, the needle is taken out and the procedure is over. The injection only takes a few minutes. However, the procedure will take about an hour total.

You must have somebody with you to drive you home after the procedure. You will not be able to drive yourself because of the anesthesia. You can usually return to normal activities the next day.

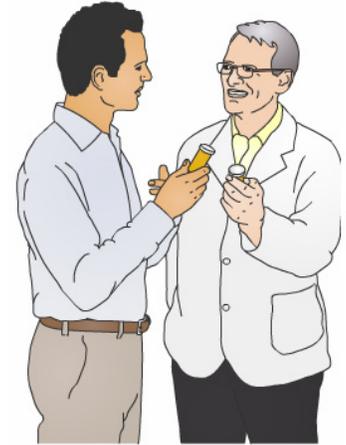
Risks and Complications

This procedure is very safe. There are, however, several possible risks and complications. These are unlikely but possible. You need to know about them just in case they happen. By being informed you may be able to help your doctor detect complications early.

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In very rare cases, infections may happen. Therefore, it is important to report to your healthcare provider any worsening pain or fever you have after the procedure.

Rarely, patients may have allergic reactions to the medications used. Before the procedure, tell your healthcare provider about allergies you may have to medications, particularly numbing medications. Very rarely, allergic reactions could be severe and may lead to death. It is therefore very important to inform your healthcare provider about each and every allergy you have, especially drug allergies.



Bleeding may happen, particularly if your blood is thinned. It is important to tell your healthcare provider if you are on any blood thinners, such as Coumadin®, Advil®, or aspirin. This type of medication may have to be stopped for a few days to decrease the risk of internal bleeding.

Other nerves around the spine may be injured leading to weakness, paralysis, bladder or bowel problems, sexual dysfunction, etc. This risk is extremely unlikely.

The steroid used could increase the blood sugar in diabetic patients, accelerate the patient's heart rate, or could increase his or her blood pressure.

X-rays are used during this procedure. The amount of radiation used is deemed safe. However, this same amount could be dangerous for unborn children. Tell your healthcare provider if you are pregnant or may be pregnant before the procedure.

The drugs used during this procedure also may not be safe for an unborn child. It is very important to make sure you are not pregnant prior to this procedure. Before the procedure is performed, be sure to tell your doctor if there is any chance that you may be pregnant.

Also be sure to tell your healthcare provider about all the medications you are currently taking. This includes both prescription and over-the-counter medications. Some medications may interact with the medications used during this procedure. Glucophage® is an example of a medication that could interact with the dye used in this procedure.

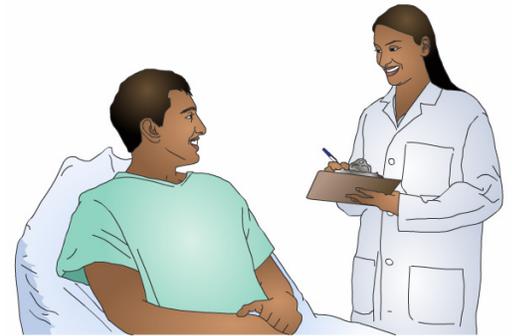


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It is possible that a medial branch block will not relieve the pain. In rare cases, it may even make the pain worse if nerves are damaged.

After the Procedure

After the procedure, you will be watched in the recovery area for 30 minutes to 1 hour. This is to make sure no serious complications happen. After this time, you will need to have someone drive you home. Your pain may be gone or lessened right after the procedure. You may notice numbness or an odd feeling in the area where the injection was done.



For the rest of the day, you shouldn't shower or soak in water. Also avoid using heat on the injection site. You may use an ice pack to reduce swelling or soreness. You should rest for a day or two after the procedure. Do activities that you can tolerate, but rest more than you usually do. You may feel sore.

If dye was used during the procedure, you may be told to drink lots of water. This will help remove the dye from your body.

Report any pain you experience during the next few days to your healthcare provider. You should avoid taking any pain medication for at least 6 hours after the procedure to know if the medial branch block worked.

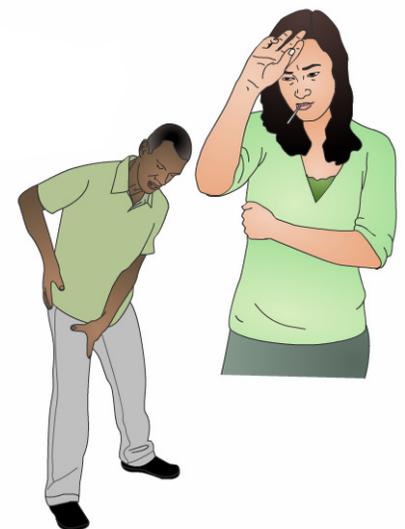
Call your healthcare provider right away if you experience:

- A fever
- New leg numbness or weakness
- Severe leg pain

Also call your healthcare provider right away if you have any signs of infection at the injection site.

Signs of infection at the injection site include:

- Discharge
- Heat
- Redness
- Swelling



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Summary

Some people have pain in the neck, middle back, or low back. A medial branch block, or MBB for short, can be effective to help diagnose the source of this type of pain. A medial branch block may be used to treat the cause of neck or back pain.

The aim of a medial branch block is to numb the medial branch nerves. This will lessen or stop pain if the facet joints are the source of the pain.

Your pain should disappear shortly after the injection if the facet joints were the cause. The pain may come back again. It may then get better over the next few days if a steroid was also injected.

A medial branch block is a very safe procedure. However, as you have learned, complications may happen. Knowing about them will help you and your healthcare provider detect them early if they do happen.



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