

Facet Joint Block

Facet joint block is a minimally invasive procedure in which a physician uses fluoroscopy or CT imaging to guide the placement of an injection of medication into a facet joint to provide pain relief.

Tell your doctor if there's a possibility you are pregnant. Discuss any medications you're taking, including aspirin and herbal supplements, and whether you have any allergies — especially to anesthesia. Your physician will advise you to stop taking aspirin or blood thinner three days before your procedure, and you may be told not to eat or drink anything for eight hours beforehand. Leave jewelry at home and wear loose, comfortable clothing. You will be asked to wear a gown.



What is a Facet Joint Block?

A facet joint block or injection is a minimally invasive procedure in which a physician injects a small amount of local anesthetic and/or medication to numb a facet joint and provide pain relief. Fluoroscopy, a form of real-time x-ray, or CT is used to guide the placement of the needle into the facet joint.

Facet joints, which are located in pairs on the side of each vertebra in the neck and back, allow for motion and provide support and stability in the spine. Injury or conditions such as arthritis may cause pain and inflammation within the facet joints.

What are some common uses of the procedure?

A facet joint block is typically performed to:

- reduce inflammation
- provide long-term pain relief
- help patients tolerate physical therapy or other rehabilitative exercises
- help physicians determine the cause of back or neck pain

How should I prepare?

Prior to your procedure, your blood may be tested to determine whether it clots normally.

Tell your doctor about all the medications you are taking, including herbal supplements, and whether you have any allergies, especially to local anesthetic, general anesthesia or contrast materials containing iodine. Your physician may advise you to stop taking aspirin, nonsteroidal anti-inflammatory drugs (NSAIDs) or blood thinners for a specified period of time before your procedure.

Tell your doctor if you are taking blood-thinning medications such as Warfarin (Coumadin), Heparin, Lovenox, clopidogrel (Plavix) and over-the-counter pain relievers such as aspirin, ibuprofen or naproxen.

Talk to your doctor about any recent illnesses or other medical conditions.

Depending on the level of the injection site, metal objects, including jewelry, eyeglasses, dentures and hairpins, may affect the CT images and should be left at home or removed prior to your exam. You may also be asked to remove hearing aids and removable dental work. Women may be asked to remove bras containing metal underwire. You may be asked to remove any piercings, if possible.

You will be asked not to eat or drink anything for a few hours beforehand, as contrast material may be used in your exam. You should inform your physician of all medications you are taking and if you have any allergies. If you have a known allergy to contrast material, or "dye," your doctor may prescribe medications (usually a steroid) to reduce the risk of an allergic reaction. These medications generally need to be taken 12 hours prior to administration of contrast material. To avoid unnecessary delays, contact your doctor before the exact time of your exam.

You will be given a gown to wear during the procedure.

Women should always inform their physician and technologist if there is any possibility they may be pregnant. *See the Radiation Safety (<https://www.radiologyinfo.org/en/info/safety-radiation>) page for more information about pregnancy and x-rays.*

You should plan to have someone drive you home after your procedure.

What does the equipment look like?

The equipment typically used for this procedure consists of a needle and either a fluoroscopy or a CT unit.

The thin, hollow needle used is 3.5 or 5 inches long, depending on your body size.

The fluoroscopy unit consists of an x-ray tube and a television-like monitor that is located in the examining room.

The CT scanner is typically a large, box-like machine with a hole, or short tunnel, in the center. You will lie on a narrow examination table that slides into and out of this tunnel. Rotating around you, the x-ray tube and electronic x-ray detectors are located opposite each other in a ring, called a gantry. The computer workstation that processes the imaging information is located in a separate control room, where the technologist operates the scanner and monitors your examination in direct visual contact and usually with the ability to hear and talk to you with the use of a speaker and microphone.

How does the procedure work?

In a facet joint block, the physician uses either fluoroscopy or CT to guide insertion of the needle through the skin into the facet joint. Contrast material is sometimes injected into the joint and needle placement is confirmed using real-time x-ray or CT images. Then, anesthetic and anti-inflammatory medication are injected into the facet joint.

How is the procedure performed?

Image-guided, minimally invasive procedures such as facet joint blocks are most often performed on an outpatient basis by an interventional radiologist.

The procedure is usually performed without sedation. However, if it is needed, a nurse technologist will insert an intravenous (IV) line into a vein in your hand or arm so that sedative medication can be given intravenously.

You will be asked to lie face down on the examining table.

You may be connected to monitors that track your heart rate, blood pressure and pulse during the procedure.

The area of your body where the needle is to be inserted will be sterilized and covered with a surgical drape. Your physician will numb the area with a local anesthetic.

Guided by real-time x-ray images or CT, the physician will insert the needle through the skin and into the facet joint being treated. A small amount of contrast material may be injected to confirm that the needle is inside the joint. Once confirmed, a small mixture of anesthetic (such as lidocaine) and anti-inflammatory medication (steroid/cortisone) is slowly injected into the joint. Some radiologists may feel it is sufficient to inject near the joint, rather than into it. The needle is then removed.

Pressure will be applied to prevent any bleeding and the opening in the skin will be covered with a bandage. No sutures are needed.

You may be taken to an observation area for several hours. If you were sedated, your IV line will be removed before you are discharged.

The entire procedure is usually completed within 30 minutes.

What will I experience before and after the procedure?

If an intravenous line (IV) line is needed, you will feel a slight pin prick when the needle is inserted into your vein and when the local anesthetic is injected. Most of the sensation is on the skin at the site of the local anesthetic injection.

You will be asked to remain very still during the procedure. You may feel some pressure when the needle is inserted.

You may feel sore at the area of the needle insertion for a few days. You may apply ice or a cold pack to the injection site and your doctor may prescribe pain relief medication if you have significant pain. You should avoid strenuous activities and driving for 24 hours.

You may feel your pain level increase as the numbing medicine wears off and before the cortisone begins to take effect. Rarely, you may experience side effects from the anti-inflammatory medication, including:

- a feeling of warmth for several days
- fluid retention, weight gain or increased appetite
- elevated blood pressure
- mood swings, irritability, anxiety, insomnia

If the facet joint block is effective in alleviating your pain, the procedure may be repeated up to three times a year.

Who interprets the results and how do I get them?

The interventional radiologist can advise you as to whether the procedure was successfully completed.

What are the benefits vs. risks?

Benefits

- Pain relief is the primary benefit. You may be anxious about the exposure to X-rays during this test. Please note:
 - No radiation remains in a patient's body after an x-ray examination.
 - X-rays usually have no side effects in the diagnostic range.

Risks

- Any procedure that penetrates the skin carries a risk of infection. The chance of infection requiring antibiotic treatment appears to be less than one in 1,000.
- Allergic reactions to the contrast material, steroid or local anesthetic may occur. Life threatening or severe allergies are rare.

- Bleeding is a rare complication that is more common for patients with underlying bleeding disorders or in patients taking blood thinners.
- Nerve or spinal cord damage or paralysis are rare but can occur as a result of trauma from the needle or infection.
- Women should always inform their physician or x-ray technologist if there is any possibility that they are pregnant. *See the Radiation Safety (<https://www.radiologyinfo.org/en/info/safety-radiation>) page for more information about pregnancy and x-rays.*

Disclaimer

This information is copied from the RadiologyInfo Web site (<http://www.radiologyinfo.org>) which is dedicated to providing the highest quality information. To ensure that, each section is reviewed by a physician with expertise in the area presented. All information contained in the Web site is further reviewed by an ACR (American College of Radiology) - RSNA (Radiological Society of North America) committee, comprising physicians with expertise in several radiologic areas.

However, it is not possible to assure that this Web site contains complete, up-to-date information on any particular subject. Therefore, ACR and RSNA make no representations or warranties about the suitability of this information for use for any particular purpose. All information is provided "as is" without express or implied warranty.

Please visit the RadiologyInfo Web site at <http://www.radiologyinfo.org> to view or download the latest information.

Note: Images may be shown for illustrative purposes. Do not attempt to draw conclusions or make diagnoses by comparing these images to other medical images, particularly your own. Only qualified physicians should interpret images; the radiologist is the physician expert trained in medical imaging.

Copyright

This material is copyrighted by either the Radiological Society of North America (RSNA), 820 Jorie Boulevard, Oak Brook, IL 60523-2251 or the American College of Radiology (ACR), 1891 Preston White Drive, Reston, VA 20191-4397. Commercial reproduction or multiple distribution by any traditional or electronically based reproduction/publication method is prohibited.

Copyright © 2024 Radiological Society of North America, Inc.