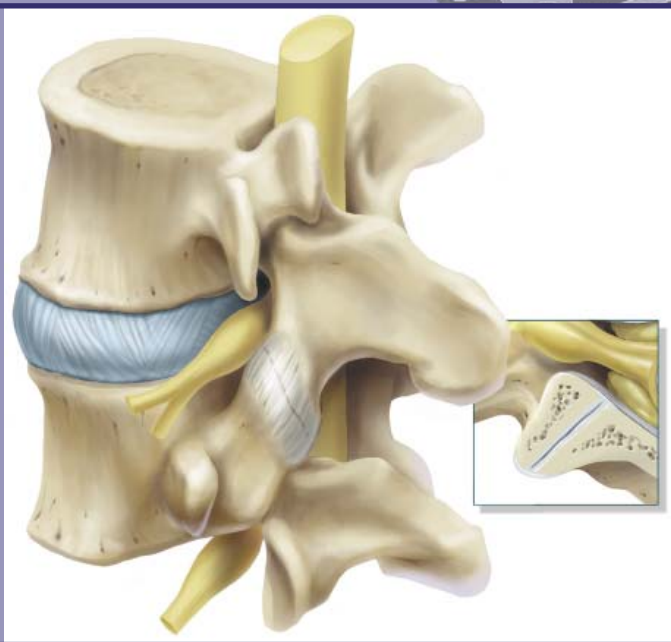


LUMBAR ZYGAPOPHYSIAL (FACET) JOINT INJECTIONS



NORTH AMERICAN
SPINE SOCIETY
PUBLIC EDUCATION
SERIES

WHAT ARE ZYGAPOPHYSIAL JOINTS?

Zygapophysial joints, better known as facet or “Z” joints, are located on the back (posterior) of the spine on each side of the vertebrae where it overlaps the neighboring vertebrae. The facet joints provide stability and give the spine the ability to bend and twist. They are made up of the two surfaces of the adjacent vertebrae, which are separated by a thin layer of cartilage. The joint is surrounded by a sac-like capsule and is filled with synovial fluid (a lubricating liquid that reduces the friction between the two bone surfaces when the spine moves and also nourishes the cartilage.)

WHY GET A FACET JOINT INJECTION?

There are basically two reasons for having a facet joint injection: for **diagnosis** (to determine the source of pain) or for **therapy** (to treat an abnormality that has been detected.)

Most back pain will improve within a few weeks by itself, or with conservative treatments such as rest, antiinflammatory medications, physical therapy and exercise. If you suffer from back pain for more than six weeks and conservative treatments have not helped, or if your pain has increased, your physician may order diagnostic tests such as magnetic resonance imaging (MRI) or computerized tomography (CT) scans to look at the structures of the spine. A problem (such as inflammation, irritation, swelling or arthritis) in the facet joint may cause low back pain. Diagnostic tests can show an abnormality in a facet joint, which may suggest that the facet joint is the source of the pain. However, sometimes normal study results can be present while the facet joint is still the source of pain, and abnormal results do not always implicate the facet joint.

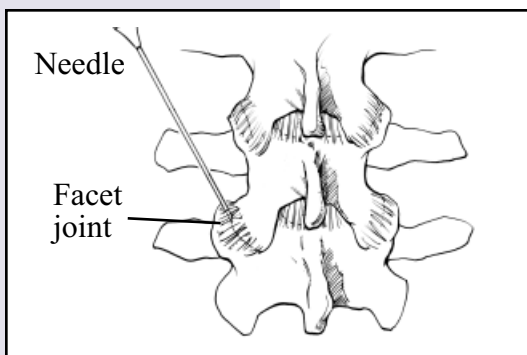
To determine if a facet joint is truly the source of back pain, an injection (sometimes called a “block”) may be prescribed. If an injection of a small amount of anesthetic or numbing medication into the facet joint reduces or removes the pain, it indicates that the facet joint may be the source of the pain. This is diagnostic use of the facet joint injection.

Once a facet joint is pinpointed as a source of pain, therapeutic injections of anesthetic agents and anti-inflammatory medications may give pain relief for longer periods of time.

HOW ARE THE INJECTIONS PERFORMED?

Facet joint injections are performed while you are awake, under a local anesthetic, and able to communicate. Sometimes, your health care provider may also administer drugs to make you more comfortable during the procedure. The injection is usually performed while you are lying on your stomach on an X-ray table. EKG, blood pressure cuffs and blood-oxygen monitoring devices may be hooked up prior to the injection process.

Your physician or an assistant will clean and sterilize the area of the back directly over the affected joint. During the procedure, you probably will undergo a fluoroscopic X-ray that allows your physician to place the needle in the correct facet joint. After careful placement, your physician will then use a local anesthetic to numb the skin over the injection site. Before your health care provider injects the actual medication into the joint capsule, he or she will inject the joint with a contrast (dye) that will show up on the X-ray to ensure he or she has the proper site for injecting the medications.



ARE THERE SPECIAL PREPARATIONS?

Once the proper site has been determined, your physician will inject the anesthetic (often lidocaine or bupivacaine) and the anti-inflammatory (usually a corticosteroid.) You may be asked whether you are experiencing pain relief or not, to make sure the injection is in the right place and determine if additional injections are needed. This process may then be repeated depending on the number of affected facet joints. Although the actual injection takes only a few minutes, the overall procedure usually takes approximately 30 to 60 minutes.

If you are to undergo a facet joint injection, you probably should not take any nonsteroidal anti-inflammatory (NSAID) medications (including aspirin, Motrin™, Advil™, Feldene™ or similar medications) for three days prior to the procedure. Usually, you should also not take any prescription pain relievers for at least four hours before the injection. Check with your health care provider about all medications. On the day of the injection, some health care providers suggest you have no food or drink (including water) for at least four hours before the procedure. However, if you are an insulin dependent diabetic, inform your health care provider; you may not need to change your normal eating habits prior to the procedure. If you need to take medication within four hours before the procedure, a sip of water may be allowed. Check with your health care provider about the need to restrict food and water before the injection. You may be asked to remove most of your clothing for the procedure and wear a gown that opens in the back to allow access to your spine.

WHAT HAPPENS AFTER THE INJECTION?

Immediately following the procedure, you may feel a reduction or complete relief of your back pain. Your health care provider may ask you to perform a task that would normally cause pain to assess the level of pain relief. You will be able to walk immediately after the procedure, although uncommonly some patients may experience leg weakness, numbness or tingling for a few hours after the injection. Because your reaction times may be affected by the medications, driving is usually not recommended immediately following the injection. You probably should have someone who is able to drive you home following the procedure.

Once home, you can treat any pain you may have at the injection site with ice or a pain medication prescribed by your health care provider. It is generally recommended that you take it easy and not exert yourself for the first day. After the anesthetic component of the injection wears off, your back pain may return. It may take seven to ten days for the steroid component of the injection to begin to relieve the pain. After the first day, you can usually return to your daily activities as your pain will allow; however, you should check with your health care provider to get his or her recommendations on specific activities that will be allowed. In most cases, you can return to work the day following the injection. If you do not get relief from your pain

following the first therapeutic facet injection, further treatments by injection at the same site are usually not recommended.

The effectiveness of facet injections for the treatment of low back pain is controversial. No medical study has definitively identified the facet joint as the cause of low back pain. Research has found that facet injections can give relief of lower back pain for longer than six months in 18-63% of patients who underwent the procedure. It has been recommended that facet injections be used as a method to allow the patient to be able to perform other forms of conservative treatment (such as physical exercise, yoga and stretching and bending), rather than using it as a stand-alone pain treatment.

WHO SHOULD NOT RECEIVE FACET INJECTIONS?

You should not undergo facet injections for the treatment of low back pain if your pain has not been present for at least four to six weeks and if other forms of conservative treatment have not been tried. If you are prone to excessive bleeding or are taking an anticoagulant medication (such as coumadin or heparin), this procedure is not recommended; you should notify your health care provider if you are taking these medications. If your back pain has been diagnosed as a result of an infection or malignancy, it is also recommended that other forms of pain relief be used.

ARE THERE SIDE EFFECTS?

There is a possibility of side effects with just about any medical procedure and you should always discuss that possibility with your physician before undergoing any treatment. Possible side effects from facet injections include pain at the injection site, bleeding, infection or a worsening of the pain symptoms. Side effects of the steroid medications used may include fluid retention, weight gain, elevated blood pressure, mood swings and insomnia. These steroid side effects are usually temporary.

Call Your Doctor or Go to the Emergency Room if you experience any of the following:

- Severe pain or headache
- Fever or chills
- Loss of bladder or bowel control
- Progressive weakness
- Redness or swelling around the injection site

FOR MORE INFORMATION,
PLEASE CONTACT:

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