

# Pain Management Injections

## General Information and Instructions



**You have been scheduled for an injection procedure at the PainCare Ambulatory Surgical Center. Pain management procedures generally have either *therapeutic* or *diagnostic* purposes, often both.**

Naturally, injections are almost always recommended in order to provide you with some measure of pain relief. Depending upon the injection, the nature of your injury, and your physiology, the relief can last as little as a few days, to as much as a few months or even years. Perhaps the most common period of relief from injections is between one and three months.

Often overlooked is the fact that your response to a specific injection may tell us a good deal about your pain source, in essence verifying which condition (on physical exam or in radiologic studies) is actually producing your discomfort. Additionally, your provider will consider your response when planning how frequently an injection may require repeating or whether a different injection type or more advanced treatment is necessary.

### **What is injected?**

Most procedures involve the injection of a solution of local anesthetic (a “Novocaine”) and steroid (a powerful anti-inflammatory medicine).

### **Local anesthetic**

The local anesthetic is a numbing medication that generally provides pain relief if injected directly into the area causing pain, within 15-30 minutes. Depending on the type of local anesthetic used, this temporary relief may last anywhere from an hour to 12-24 hours, sometimes longer. Some injections will only use local anesthetic and no steroid. This is because long term pain relief can at times be accomplished by simply breaking the pain cycle by anesthetizing the nerve, joint or muscle tissue involved.

### **Steroid**

The steroid we use most is a “corticosteroid”, which has strong anti-inflammatory properties. Steroid generally requires 3-5 days post-injection to exert its beneficial effect. The steroid reduces swelling and irritation by neutralizing noxious chemicals released by damaged tissues (such as herniated discs and arthritic joints). The steroids we inject may also have a very temporary “systemic” effect that can create an overall sense of well-being and increased energy. Many first time patients often remark that they felt “great all over” for a few weeks following the injection.

Steroids may also have undesirable side effects. However these generally only occur when taken orally everyday for a couple of months. Our injections are generally too infrequently administered to cause such side effects. A patient may begin to see side effects only if given injections once or twice a week for a couple of months (rarely the case). The most common side effects of overuse are water retention/bloating, weight gain, and easy bruising. Steroids may have a temporary minor impact on the immune system. If you are being treated by another physician for a major infection, you should reschedule your procedure until after the infection has cleared.

Steroids can also have a temporary effect on blood sugar. Diabetics are instructed to keep a closer eye on their sugar levels for a few days after an injection containing steroid as they may be elevated.

Steroids can also be a little irritating to your usual pain problem for the first couple of days, before the beneficial effect kicks in. A modest increase in your usual pain the day or two following an injection is not unusual, though not routinely, the case.

**Note:** *The steroids we generally use, corticosteroids, should not be confused with anabolic steroids which are used by some athletes to increase muscle mass.*

## The Procedure

An injection consists of 5 primary phases:

1. **Preparation:** After a nurse or assistant checks you in, you may be brought to a procedure bay, an office room, or a room with a fluoroscope (portable x-ray unit) depending upon the nature of your procedure. A fluoroscope is often used to help a provider visualize the precise location of the needle. This ensures the medicine is placed precisely to obtain the most effective result.  
You will then be assisted onto a table, a stretcher or a chair. The injection site will then be cleaned with a sterilizing solution, usually Betadine (can stain your clothes so try not wear any expensive or white colored materials).
2. **Numbing of the skin:** Your provider will then numb the skin at the site of your injection using a local anesthetic such as Novocaine. This can sometimes sting and is often the most uncomfortable part of the procedure. It can feel similar to a quick, small bee sting.
3. **Placement of the injection needle:** Your provider will then pass the needle through your numbed skin and advance it to the location of the pain. If you are in a room with a fluoroscope, your provider will use this x-ray device to help guide the needle. Your provider will also inject Novocaine, as the needle is advanced, for your continuing comfort.
4. **Injection:** Once the needle is in place, your provider will inject the appropriate medications. You may experience a pressure sensation or even a brief, mild increase in your usual pain during the injection. This is sometimes important information, and you should tell your provider if you experience this. Sensations or pain felt in or near the area of your usual pain are a good sign that the medication was placed in the most beneficial area and will likely be effective.
5. **Recovery:** Your provider will withdraw the needle and your skin will be cleansed of the Betadine and appropriately dressed – usually a simple band-aid. You will be transferred to a recovery room where you will be monitored until you are deemed safe to walk - 30 minutes is an average length of stay.

## Possible Complications

On occasion, a minor complication may arise requiring you to stay longer in recovery. Complications arise in approximately 2-3% of our cases. Although unlikely to happen, you should be aware that a recovery stay of 1-5 hours is possible.

Reaction to medications can be potential complications. These reactions usually manifest themselves as a low blood pressure.

The most common (although infrequent) complication in our clinic is an unexpectedly numb or weak leg from either a sacroiliac joint or epidural steroid injection. The sacroiliac joint lies just behind the sciatic nerve as it runs through the pelvis and into the legs. On occasion, local anesthetic (Novocaine) can leak from the joint and numb the sciatic nerve. Depending on the amount and strength of the local anesthetic it may take anywhere from 1-5 hours for full power to return to your leg.

An epidural injection can also cause a numb or weak leg, as the local anesthetic is intentionally placed at the root of the nerves that run down to the legs. Generally the medication wears off quickly and usually strength returns to a densely numb leg from an epidural injection within an hour and half – rarely longer.

Epidural injections pose another possible complication called a "spinal headache". This happens in about 1% of epidural injections. A "spinal headache" is caused when the needle used for the injection nicks the membrane that holds the spinal fluid around the spinal cord. This allows spinal fluid to leak into surrounding tissues. Although this is not at all dangerous, it can cause a headache, especially when you stand up. It can require 2-5 days for the nick to heal itself. Sometimes a special procedure called a "patch" is performed which reliably seals the leak almost immediately.

Injections around the chest wall, such as trigger point injections pose the potential but extremely low risk of a pneumothorax (puncturing of the lung). Usually this requires no treatment.

Injections requiring a large amount of local anesthetic can sometimes cause very temporary lightheadedness or dizziness, less commonly hearing changes and rarely an actual brief seizure (not dangerous, easily treated).

Injections near delicate nerve structures can rarely injure the nerve, resulting in prolonged nerve pain (neuralgia). While treatable, neuralgia can be a permanent condition.

Injections are *very* safe procedures, especially in the hands of our skilled providers. However, as with any medical treatment, you deserve to be made aware of the remote possibility of serious and/or permanent complications and even the possibility of death.

## **Sedation**

Your provider may suggest that you be sedated for your procedure. Sedation involves placement of an IV and injection of relaxing “mind numbing” medications just before your procedure begins. If you are scheduled to receive sedation please take following precautions:

1. Bring a driver to drive you home.
2. Do not have anything to eat or drink, except perhaps a sip of water, within 4 hours of your procedure.
3. Do not plan on operating any heavy machinery or making important decisions for the remainder of the day.

## **After the Procedure**

Response to injections vary greatly from patient to patient. Some patients experience up to a few days of discomfort after an injection, most experience none. As mentioned before, the steroid may cause some irritation before its beneficial effect kicks in. The injection itself can cause some soreness from minor bruising for a day or two. Ice and/or heat be very useful for relieving post injection soreness – always use the "20/20" rule (apply ice or heat for no more than 20 minutes at a time and allow your skin to recover at least 20 minutes before reapplying). Alternating ice and heat is a tactic used from time to time by many of our more frequently injected patients.

Over the counter anti-inflammatories such as Advil or Alleve can also be very helpful for post-injection soreness. Do not use these over-the-counter medications unless you have taken them before without adverse effect and have no allergy to them.

## **Injection Response**

It sounds obvious, but it is worth emphasizing the importance of paying close attention to the relief you experience from the injection. When you have a follow-up visit to our office, you will be asked how much relief you received and specifically how long it lasted. We generally document this as the percentage of pain relief for a particular duration, for example: 75% x 3 weeks -75% of pain was relieved for about 3weeks; or 100% ongoing - received 100% relief and is still currently pain free.