

## Injections for lumbar and cervical facet arthritis

- **Facet Joint Injections**
- **Medial Branch Blocks**
- **Radiofrequency Ablation**
- **Platelet Rich Plasma Therapy**

Back and neck pain can be caused by various problems in the musculoskeletal system. One of the most common culprits of back soreness comes from the wear and tear or trauma of the connections between two vertebrae in the spine called the facet joint (also called the zygapophyseal joint or Z-joint). This joint stabilizes your spine when you twist side to side or bend forward and backward. This joint is highlighted in Figure 1.

Just like the joints in your knees or hips, facets are prone to inflammation. This occurs when aging, wear and tear, posture, trauma and other factors leads to irritation in the joint space. When this becomes severe enough, it can irritate the medial branch nerve which transmits pain signals to the nervous system. An illustration of the medial branch nerve is highlighted red in Figure 2.



Figure 2. Medial Branch Nerve from [helpingbacks.com](http://helpingbacks.com)

Inflammation of the facet joints is notoriously difficult to treat. Good posture, strengthening the core and weight loss are critically important, but oftentimes, the pain is so severe that it prevents these lifestyle changes, or the pain continues despite these efforts.

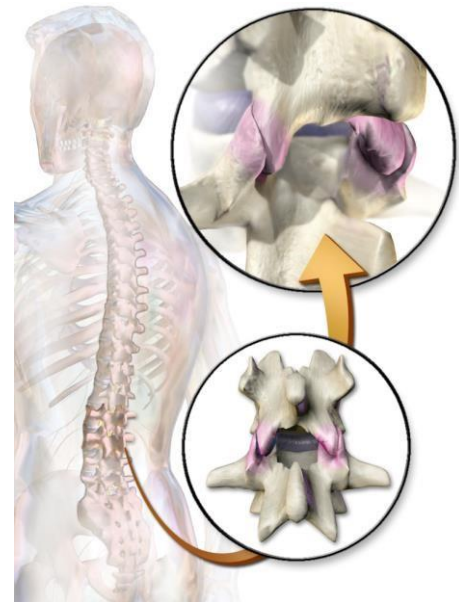


Figure 1. Facet joint from [Blausen.com](http://Blausen.com) staff.

At Philadelphia Smart Pain and Wellness, we have successfully helped many people living with neck and back pain due to facet disease by performing a series of injections that interrupt the pain signals and inflammation coming from the facet joint. This can be accomplished through safe, X-ray guided, minimally invasive injections.

### **Medial Branch Nerve Block**

We start by performing a **diagnostic injection**. This procedure requires the injection of local anesthetic to the medial branch nerve, which provides sensation to the facet joint. X-ray guidance is used to ensure accurate and safe needle placement. The anesthetic medication typically wears off after 4-8 hours. If this injection is successful, you should feel numb from your typical pain for several hours or a day. When the numbing medicine wears off, most of the time the pain returns. This helps identify where the neck or back pain is coming from. In some cases, we need to perform a diagnostic medial branch nerve block twice.

### **Intraarticular Facet Injection**

Depending on your preferences, after a diagnostic injection, we can follow up with a **therapeutic injection** to the exact source of the pain. In this injection, we use X-ray guidance to place medications directly into the facet joint.

One common medication is **steroid**. This has an anti-inflammatory effect and when combined with therapy and exercise, this injection enables lasting pain relief for a duration of time.

We can also inject **platelet rich plasma (PRP)** into the facet joint. PRP is an emerging therapy that can promote cellular repair within the joint. It is completely natural and has no side effects. PRP comes from your own blood, drawn from your vein. A centrifuge is used to spin it and separate the blood into distinct layers. We take the platelet rich plasma layer and use this to inject into the joint. In our experience, we recommend a series of three of these injections. Most insurances do not cover this injection and there will be an out of pocket expense.

### **Radiofrequency Ablation**

If the diagnostic injections identify the exact source of facet pain, we can provide a more lasting interruption of pain signaling through a radiofrequency ablation (also called RFA, rhizotomy or radiofrequency ligation (RFL)). A special needle is placed along the medial branch nerve under X-ray guidance, like the diagnostic block. Instead of administering local anesthetic, a thermal probe is advanced and heated up to ablate the nerve. This procedure will not damage any other physical functions in the body and can provide lasting pain relief for 6 months to a year when the nerve grows back.

### **Risks**

- All injections carry the risk of infection, bleeding and nerve damage. This risk is increased if you take medications that impair blood clotting.
- There is a risk of weakness to the leg caused by the spread of local anesthetic during the injection. This is a temporary effect, but we suggest that you have a companion drive to and from the procedure.
- Steroids exert many effects on the body. They increase blood sugar (especially in diabetics), they depress the immune system and block the body's normal production of cortisol.