

Lumbar Sympathetic Blocks

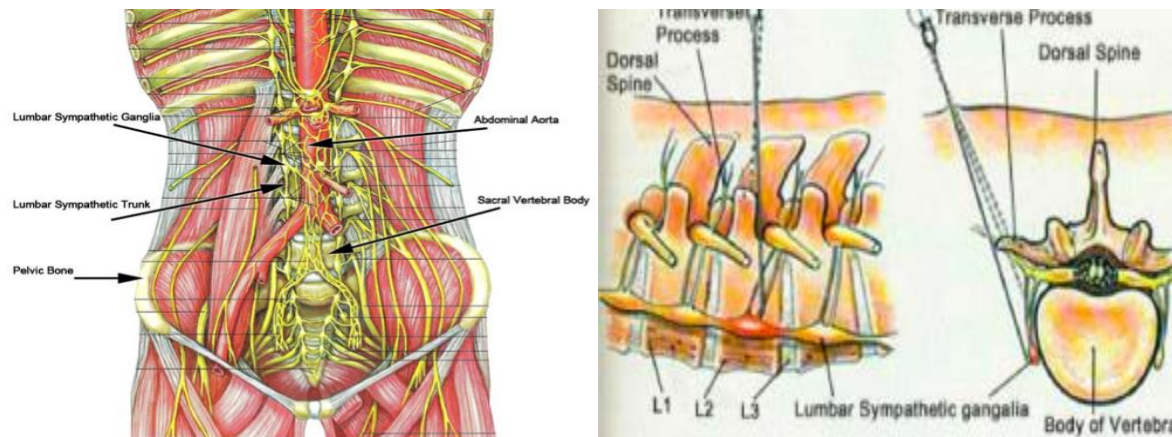
What is a Sympathetic Block?

This injection is intended to relieve pain in the legs due to such conditions as CRPS and RSD. These are abbreviations for Complex Regional Pain Syndrome and Reflex Sympathetic Dystrophy. In addition, it may also relieve symptoms that result from peripheral vascular disease and vasospastic disease that is not amenable to surgery, and other conditions like cancer pain or the discomfort from Shingles.

RSD and CRPS are conditions characterized by sympathetic nerve “over activity”. The syndromes can lead to excessive pain, temperature and skin changes, along with a very difficult time working and socializing. The key with treatment is to find a way to “break the cycle” of the over activity of the sympathetic nerves. A lumbar sympathetic block may help do just that.

What is the Sympathetic Chain?

The lumbar sympathetic trunk, runs in front and on the side of the lumbar spine. It’s a collection of nerve fibers that regulate things humans do not even have to think about. This includes GI movement, heart rate, sexual arousal, and constriction of blood vessels.



What causes the Over Activity?

There are a number of things that can lead to over activity of the sympathetic nervous system and RSD. This may be a result of an uneventful carpal tunnel surgery or knee arthroscopy. A trauma such as a car accident or a slip and fall may result in RSD. It is a very unpredictable phenomenon. With regards to peripheral vascular disease or post-Shingles pain, it may not be over-activity as a reason for the injection. But the injection may relieve pain from cutting back the normal activity level of the system too.

What conditions benefit from a lumbar sympathetic block?

This procedure may benefit pain from the following conditions

- Herpes Zoster (Shingles)
- Cancer Pain
- Pelvic Pain
- Phantom Limb Pain
- RSD and CRPS
- Raynaud's Syndrome
- Coccydynia
- Excessive sweating (hyperhidrosis)

In addition, it may also relieve symptoms that result from peripheral vascular disease and vasospastic disease that is not amenable to surgery.

How do pain management doctors perform the procedure?

Patients lay prone for the procedure (belly down). IV sedation may be used, but it is not mandatory. After sterilizing the skin, the pain doctor will numb the skin down to the area of the spine. Usually, an approach is made from both sides of the spine for best results, so two needles are used. Fluoroscopy, which is a real time form of x-ray, is used for the procedure. Once the needles are close to the area of the sympathetic chain, contrast material is injected to ensure accuracy. Once confirmed, numbing medicine is injected. Also included may be a neurolytic agent such as phenol. This may provide longer lasting relief.

Some pain doctors prefer to apply radiofrequency ablation to obtain relief. Studies have shown benefit with this approach as well. ([Anesth Analg](#). 2008 Feb;106(2))

The procedure itself takes about 15 to 30 minutes, and patients are monitored for an hour or so afterwards for stable vitals and to watch for an allergic reaction.

It may be necessary to undergo a series of lumbar sympathetic blocks to obtain the best result. The procedure can be repeated every few weeks.

How well does the procedure work?

If the procedure is performed accurately, patients usually notice immediately that their leg feels "full". One can feel a temperature increase right away as the vessels are relieved of the constriction from the sympathetic over activity. Typically the temperature increase is at least 2 degrees Celsius. While narcotic medications may not have significant pain relief for RSD, sympathetic blocks have been shown to be an excellent pain relieving procedure (Manjunath et al, 2008). Overall, the available studies are small, but have showed significant benefit in those who present early with the pain. If the chronic pain condition has existed for over two years, results are not nearly as good.

What are the risks of the block?

The risks are very low for this procedure. They include a small risk of infection, soreness, bleeding, spinal block, epidural block. There are some large blood vessels nearby. Fortunately, serious complications are unusual.

If you or a loved one is suffering from RSD, CRPS, coccydynia, pelvic pain, or any of the conditions mentioned, help is available with the Pain management.