



SPINE ASSOCIATES

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Sympathetic Nerve Block

**NOTE: THESE INJECTIONS SHOULD ONLY BE ADMINISTERED BY A MD
TRAINED IN INTERVENTIONAL PAIN MEDICINE.**

What are the sympathetic nerves and why are sympathetic blocks helpful?

The sympathetic nerves run on the front surface of the spinal column and not in the spinal canal with the nerves that provide sensation and strength to your legs. The sympathetic nerves are part of the autonomic nervous system, which basically controls functions such as blood flow and temperature regulation to the arms and legs, sweating, heart rate, digestion, and blood pressure.

The autonomic nervous system is responsible for controlling bodily functions that you do not think about or have direct control over. However, there is a connection between the central nervous system (that you have control over) and the autonomic nervous system. Regulation of the connection can become altered, usually secondary to an injury. When regulation of the sympathetic nervous system is altered, various pain states can occur including complex regional pain syndrome, also known as Reflex Sympathetic Dystrophy (RSD).

What is a sympathetic block and why is it helpful?

A sympathetic nerve block involves injecting numbing medicine around the sympathetic nerves in the low back or neck. By doing this, the sympathetic nervous system in that area is temporarily 'switched' off in hopes of reducing or eliminating pain. If pain is substantially improved after the block, then a diagnosis of sympathetically mediated pain is established. The therapeutic effects of the anesthetic can occur, at times, longer than would be normally expected. The goal is to reset the sympathetic tone to a normal state of regulation. If the initial block is successful, then additional blocks may be repeated if the pain continues to sequentially diminish.

What will happen to me during the procedure?

An IV will be started for safety, and so relaxation medicine can be given if needed. After lying on an x-ray table, the skin over the area to be injected will be well cleansed. Next, the physician will numb a small area of skin with numbing medicine (anesthetic) which stings for a few seconds. The physician will use x-ray guidance to direct a needle to the sympathetic plexus of nerves. The physician will then inject contrast dye to confirm that the medicine only goes over the targeted sympathetic nerves. Once this occurs, numbing medicine (anesthetic) will then be slowly injected.



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RISKS: bleeding, infection, nerve injury, spinal cord injury, abscess or blood clots, paralysis, spinal fluid leak with headache, and failure to relieve pain are all risks. Discuss specific risks with your physician prior to the procedure during consultation.

SPECIAL INSTRUCTIONS: *You should eat or drink nothing after midnight, continue your normal medications (except those below) with a sip of water, and you should have a driver transport you home.*

MEDICATIONS TO STOP PRIOR TO THE PROCEDURE: **Stop Aspirin and Plavix 7 days before the procedure Stop Coumadin and Warfarin 5 days before the procedure. Stop Ticlid (ticlopidine) 14 days before the procedure.**

What should I do and expect after the procedure?

20-30 minutes after the procedure you will move the affected area to try to provoke your usual pain. You may or may not obtain improvement in the first few hours after the injection depending upon if the sympathetic nerves are carrying your pain signals. You may notice increased warmth in the affected extremity for 4-18 hours after the block. If the sympathetic nerves in the neck are injected (Stellate ganglion), you will also notice a slight drooping of the eyelid and redness of the eye for several hours.

This is normal, and will resolve over 4-18 hours. You should report your remaining pain (if any) and record the relief you experience during the next week on a "pain diary" we will provide. *Mail or fax the completed pain diary back one week after the injection so that your treating physician can be informed of your results and plan future tests and/or treatment if needed.

You may notice a slight increase in your pain lasting for several days as the numbing medicine wears off. You might also experience mild pain at the injection site for several days. Ice will typically be more helpful than heat in the first 2-3 days after the injection. You may take your regular medicines after the procedure, but try to limit your pain medicines the first 4-6 hours after the procedure so that the diagnostic information obtained is accurate.

On the day of the injection, you should not drive and should avoid any strenuous activities. On the day after the procedure, you may return to your regular activities. If your pain is improved from this procedure, start your regular exercise/activities in moderation. Even if you are significantly improved, gradually increase your activities over 1-2 weeks to avoid recurrence of your pain.



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DISCHARGE INSTRUCTIONS

- **Activity:** Resume normal activity today but report any weakness or numbness immediately.
- **Diet:** Resume normal diet
- **Medications:** Resume normal medications unless otherwise instructed.
- **Dressing:** You may have a small band-aid or band-aids placed over the injection site. This can be removed the next day
- **Discomfort at the Injection Site:** Apply ice wrapped in a washcloth for short periods of time (20 minutes per hour) during the first 24 hours, and then apply low to medium heat
- **IV Site:** There may be soreness and bruising around the IV site, which will go away in a few days. A warm moist cloth placed over the area for half-hour periods several times a day will sometimes help. Increased tenderness or red streaking around the area of the IV site or increasing swelling of the hand requires attention. Our clinic needs to be notified if this occurs.
- **Side Effects:** Steroid side effects include elevation of your blood sugar for a week especially if you are diabetic. More frequent checks of the blood sugar are necessary for the first week after an injection if you are a diabetic. Also steroids may cause increased blood pressure for a week and if you have hypertension or are being treated with medications for hypertension, you need to check your blood pressure more often during the first week. The medication doses for diabetes and high blood pressure may have to be adjusted by your primary care doctor if these are elevated during the first week or so after a steroid containing injection. Some patients experience facial or chest redness or having excessive energy during the first 24 hours after the injection. If you experience new onset severe generalized weakness during the first week after the injection, call our office. If you develop fever of more than 101 degrees during the first few days after the injection, new weakness or numbness in the arms or legs, severe increase in pain in the back or neck, or loss of bowel or bladder control, notify our office immediately.

• EMERGENCY CONTACT Telephone# 713-383-7100

- **Return to Normal Activities:** You may experience some numbness in the skin over the back during the first several hours. Relief from the diagnostic injection may last up to 12 hours. Relief from a steroid injection will begin in 12-24 hours. You may have some numbness in the leg, arm, foot, or hand after the injection. If this was not discussed as a possibility, call your physician to report this, and be extremely careful about walking or standing if this occurs since there is an increased risk of falling if you have numbness.
- **Anesthetic Effects:** Refrain from operating motor vehicles within the first 12 hours after the injection. If sedation is given, do not plan to make any important decisions such as signing legal or important papers or consume alcohol or sedatives within 24 hours after the injection.