

Stellate Ganglion Block (SGB)

What is a stellate ganglion?

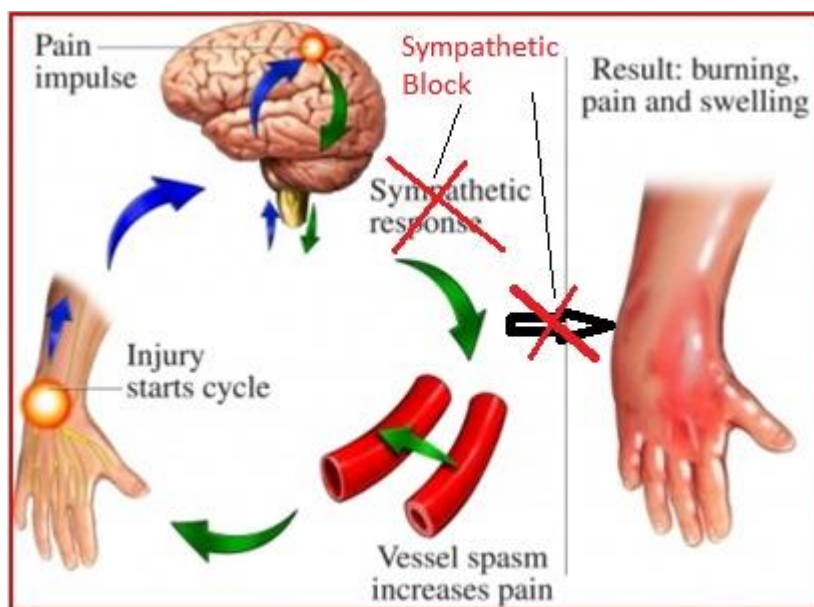
It is a sympathetic ganglion formed by the fusion of the inferior cervical ganglion and the first thoracic ganglion. Stellate ganglion is located at the level of C7 (7th cervical vertebrae), anterior to the transverse process of C7, and anterior to the neck of the first rib.

What are the indications of SGB?

Among many indications the listed are the main indications: Chronic Regional Pain Syndrome (CRPS), neuralgia, raynauds disease, hyperhidrosis (extreme sweating) of the hands, hot flashes (*Lancet Oncol. 2008 Jun; 9(6):523-32*) and PTSD (*Pain Practice. April 20, 2010*).

How does SGB bring pain relief?

The sympathetic nerve becomes hyperactivity due to chronic pain. With the SGB is goal is to break the cycle of pain and decrease sympathetic outflow, and thus, allow more blood flow into the extremity. This helps to desensitize the nerve fibers, increase blood flow, increase healing (due to increased blood flow) and increase effected limb activity.

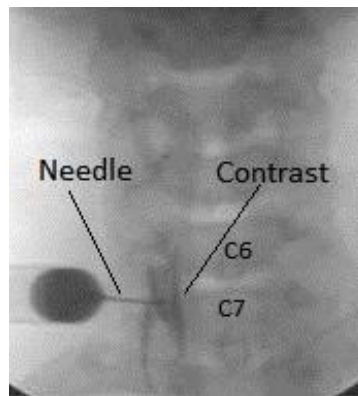


What are risks for the SGB?

Among many, here are few listed: Horner's syndrome, intra-arterial or intravenous injection, difficulty swallowing, vocal cord paralysis, epidural spread of local anesthetic and pneumothorax.

How is the SGB injection performed?

After sterile preparation of the neck region, the injection site is localized under X-ray. Following the local anesthetic applied to the injection site, which can help decrease the injection site pain, the needle is guided toward the target site with the help of X-ray. After the target is localized, it can be further confirmed with liquid contrast, which can help further confirm the location of the stellate ganglion. After the stellate ganglion is confirmed, the local anesthetic medication is injected, and the needle is taken out at the end of the procedure.



What to expect after the SGB procedure?

This is an **outpatient procedure**. Patients are monitored in the recovery room after the procedure. Patient should receive instant relief from the procedure in 10-20 minutes with improved circulation. Patient may develop droop eye lid, hoarse voice, and facial droop, which is a normal side effect and it is self-limited. Those symptoms can sometimes convey the correct locations of deposited local anesthetic. Patients are discharged from the recovery room once they have the discharge criteria.

How long the relief from the SGB would last for?

It varies from patient to patient. Usually, the pain relief can last for 2-4 weeks, and may require repeat the SGB if necessary. The purpose is to desensitize the nerve fibers, decrease pain, and increase physical therapy to mobilize the effected limb.

Please tell your pain physician if you are taking any blood thinners. For example: Coumadin, Plavix, Heparin, Lovenox and etc. The blood thinners need to be stopped before the interventional procedure, and the time frame will be prescribed by your pain physician.