



Stellate Ganglion block

Patient information leaflet

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What is a Stellate Ganglion Block (SGB)?

A **Stellate Ganglion Block (SGB)** is an injection of local anesthetic into a cluster of nerves in your neck called the stellate ganglion. These nerves are part of your **sympathetic nervous system**, which controls many automatic bodily functions like blood flow, heart rate, and your body's "fight or flight" response.

By temporarily blocking these nerves, an SGB aims to:

- Reduce pain signals (acute pain, chronic pain and cancer pain)
- Improve blood flow (in patients with poor blood circulation)
- Potentially "reset" your body's response to stress due to various medical conditions (eg PTSD, long Covid, increased sweating, Perimenopausal symptoms like hot flashes, loss of smell and taste)

Why might an SGB be recommended for you?-SGBs are used for a variety of conditions, primarily to manage pain, improve circulation, and are being explored for other uses.

Pain Management

SGBs are most commonly used to treat pain in the head, neck, chest, and arms, especially when the pain is thought to be related to nerve irritation or is "sympathetically maintained" (meaning your sympathetic nervous system is contributing to the pain). This includes:

- Complex Regional Pain Syndrome (CRPS): A chronic condition causing severe pain, swelling, and changes in skin temperature or color, often in an arm or leg after an injury.
- Postherpetic Neuralgia: Persistent pain that can occur after a shingles (herpes zoster) infection.
- Post-surgical Pain: To help manage pain after certain operations.
- Cancer pain

Blood Flow Improvement

SGBs can help improve circulation in conditions where blood flow to the extremities is reduced:

- Raynaud's Syndrome: A condition causing numbness and pain in fingers and toes due to reduced blood flow, often in response to cold or stress.
- Peripheral Vascular Disease: Conditions that affect blood circulation outside of the brain and heart, such as peripheral artery disease.
- Frost bite: as cold injury

Other Potential Uses

While not all of these uses are officially approved by regulatory bodies, SGBs are sometimes explored for:

- Mental Health Conditions: Such as PTSD, depression, anxiety, and psychosis. The theory is that by influencing the sympathetic nervous system, an SGB might help calm an overactive "fight-or-flight" response.
- Long COVID: Recent research suggests SGBs might help alleviate symptoms like fatigue, brain fog, and changes in taste or smell experienced by some individuals after COVID-19.
- Hyperhidrosis: To reduce excessive sweating, particularly in the hands and face.

How does the SGB procedure work?

- During the procedure, a local anesthetic is injected near the stellate ganglion nerves in your neck.
- This temporarily blocks the signals from these nerves. By doing so, it can interrupt pain pathways, promote better blood flow, and potentially help your sympathetic nervous system return to a more balanced state.

Important Considerations Before and After Your SGB

It is crucial to have a detailed discussion with your doctor or a pain specialist to determine if an SGB is the right treatment option for your specific condition. We will assess your medical history and discuss the potential benefits and risks tailored to your situation.

Possible Side Effects Like any medical procedure, an SGB carries some risks.

Common side effects are usually mild and temporary, and may include:

- Soreness or bruising at the injection site

- Hoarseness (due to temporary effects on vocal cord nerves)
- Drooping eyelid on the side of the injection (known as Horner's Syndrome)
- Stuffy nose on the side of the injection
- Warmth or redness in the arm and hand on the side of the injection

More serious, but rare, complications can include:

- Nerve damage
- Infection
- Bleeding or hematoma (a collection of blood outside of blood vessels)
- Pneumothorax (collapsed lung, if the needle goes too deep)

As this procedure is done under ultrasound guidance, the serious, but rare complications are extremely rare. Your doctor will discuss these risks with you in detail.

Preparing for the procedure

- Please let us know if you are taking anticoagulant medications (blood thinners) such as clopidogrel (Plavix), warfarin or dipyridamole. You may need to stop these before the procedure.
- If you are taking Warfarin, we will need to do a blood test before you have the procedure. Please be aware that this may cause a slight delay to your treatment.
- You can continue to take all other medications as prescribed.
- You may eat and drink as normal if this is done under local anaesthesia and no sedation .

Information and advice for patients on the day of surgery

- You will be admitted to the hospital for the procedure.
- Please note that this is a mixed sex facility.
- When you arrive, a nurse will check you in and may give you a gown to put on.
- The doctor will then explain the procedure once again and ask you to sign a consent form.
- Please make sure that you understand the procedure and ask any question.

During the procedure

- The whole procedure will take approximately 10-20 minutes.
- The doctor will clean the area.
- Identify the nerve using an ultrasound machine.
- The doctor will identify the nerve, may stimulate it with a nerve stimulator and then inject the local anaesthesia and other medications like small dose of short acting steroid to reduce inflammation to the nerve.

Position during surgery (sitting, standing, lying down?)

- Depending on patient preference, you will be lying down or slightly propped up.
- You may feel some discomfort when having the injection but this should only last briefly.
- The area injected may feel numb for up to 6 hours after the injection.

After the injection

- You will be asked to wait for approximately 10-20 minutes to check that you feel alright.
- Once you feel ready, and the staff are satisfied with your condition, you may go home, accompanied by family, a friend or relative.
- You should not drive a vehicle yourself or travel on public transport for the rest of the day.
- You can continue with normal activities the day after.
- We advise you to keep the area where the injection was given clean to reduce the risk of infection. The area injected may feel numb

Follow up

After the procedure you will be followed up either as telephone follow up or face to face follow up in 6-8 weeks' time to assess the outcome and plan the next step forward.

If you have any further questions or concerns about the stellate ganglion block, please do not hesitate to speak with your doctor or nurse.

Are there any alternative treatments?

Alternative treatments may include the following in isolation or combined together.

- Self management through lifestyle modifications
- Different medications as tolerated
- Use of a TENS machine / Physiotherapy/Application of heat or cold/ massage/exercises
- Attending a Pain Management Programme.
- Stress management programmes.

Your doctor will discuss other options with you.

For more information

More information given by the Faculty of Pain Medicine can also be found here [Stellate Ganglion Block for the Treatment of Pain](#)

[#36476 Cervical sympathetic chain/'stellate ganglion' block under ultrasound guidance to treat 15 year old olfactory dysfunction/anosmia](#)

[Ultrasound guided cervicothoracic\(stellate\) ganglion and infraclavicular block as an upper limb salvaging and pain management technique.](#)

