A Stellate Ganglion Block is an outpatient procedure for severe arm pain. One condition commonly treated with this procedure is Complex Regional Pain Syndrome (CRPS).

**What is the CRPS?**

Complex regional pain syndrome (CRPS) is a severe pain condition that has also been called Reflex Sympathetic Dystrophy (RSD). It commonly affects the arm and hand or leg and foot. During CRPS the central nervous system (brain and spinal cord) receive overactive pain signals. This type of pain is referred to as sympathetically mediated pain. In its early stage CRPS begins with pain with light touch to the skin, and in its chronic stages there can be changes in skin color, temperature, and/or swelling in the affected area.

**What is sympathetically mediated pain (SMP)?**

Pain caused by overactive pain signals, called neurogenic pain, is not inflammatory like typical pain, but is caused by your nerves. If nerves become overactive and cause constant, severe pain, this is sympathetically maintained pain. This type of pain often does not respond well to anti-inflammatory mediation.

**What is the stellate ganglion?**

The stellate (or cervicothoracic) ganglion is a bundle of nerves that controls pain signals in your shoulder, arm, and face. The ganglion is located at the level of 7th cervical vertebrae in your neck. This nerve bundle is part of a large chain of nerves called the sympathetic chain.

**How do I know if I have sympathetically mediated pain?**

If you have constant burning pain in your head, neck, or arm that does not respond well to anti-inflammatory medication, you may have sympathetically mediated pain. This type of pain causes your pain receptors to become much more sensitive. Light touch with fingers or even clothes can be painful, a condition called allodynia.

**What is a stellate ganglion block?**

In a stellate ganglion block, a local anesthetic (numbing medicine) is injected in the region of the stellate (or cervicothoracic) ganglion. This injection will block the transmission of sympathetic pain signals to your arm.
What happens during an injection?

A local anesthetic will be used to numb your skin. The doctor will then insert a thin needle directly in the front of your lower neck, in order to reach the stellate ganglion. Fluoroscopy, a type of x-ray, will be used to ensure the safe and proper positioning of the needle. A dye may also be injected to make sure the needle is in the correct spot. Once the doctor is sure the needle is correctly placed, the medicine will be injected.

What happens after an injection?

You will be monitored for up to 30 minutes after the injection. When you are ready to leave, the staff will give you discharge instructions. You will also be given a pain diary. It is important to complete this diary, because it helps your doctor know how the injection is working.

It may help to touch and move your arm in ways that hurt before the injection, to see if the pain is still there, but do not overdo it. Take it easy for the rest of the day.

You may feel immediate pain relief and numbness in your neck and arm for a period of time after the injection. This may indicate the medication has reached the right spot. You can usually return to work the day after the injection, but always check with your doctor.

It is important to get physical therapy within 1-2 hours after the SGB to move and touch your limb when it is not painful.

How long can I expect pain relief?

The extent and duration of pain relief depends on the cause of your pain. Sometimes an injection brings several days or weeks of pain relief, and then further treatment is needed. Other times, a single injection brings long-term pain relief.

This pamphlet is for general education only. Specific questions or concerns should always be directed to your doctor. Your doctor can explain possible risks or side effects.