

## **Procedures in Regenerative Medicine**

### **Stellate Ganglion Block**

A Stellate Ganglion Block (SGB) is a simple procedure that treats conditions resulting from a dysfunctional program in a person's autonomic nervous system (ANS), typically resulting from extreme stress. The SGB will quickly and effectively reset a patient's sympathetic nervous system and is indicated to reduce the symptoms of post-traumatic stress disorder (PTSD). The SGB is also an elective procedure for performance-enhancement, because it can unlock a patient's autonomic nervous system and offer increased mental acuity, sexual function, attentiveness, and enhanced, effective rest.

The sympathetic part of the ANS normally prepares the body for emergencies ("fight or flight" response). It controls heart rate, blood pressure, skin temperature, and the response of eyes to light. It can also control the perception of pain, the ability to relax, to focus thoughts, to function sexually, and the response of stress.

When the SNS has been overwhelmed, typically from extreme stress, it becomes programmed to an inappropriately high set point. This causes the body to remain in a state of extreme survival-level response to stress, and the person may over-react or just not react at all to life's everyday events. This high set-point cannot be corrected without resetting or re-booting that part of your nervous system, much like re-booting a computer that is stuck on an inappropriate or dysfunctional program.

This is a stress injury, in which the SNS is inappropriately stuck in a "fight or flight" response. This stress injury is not a disease or a disorder; like most injuries, there is a way to recover from it.

A large proportion of our population have knowingly or unknowingly experienced a SNS stress injury, and as such cannot function physically, think clearly, relax and enjoy being alive.

The SGB procedure typically restores normal function almost immediately to your nervous system. It can restore a person to the way they were before the system became overwhelmed, losing the ability to be optimal.

### **Will this procedure help?**

Whether or not the SGB will help is less dependent on the name of the condition and more on the response to the PCL test. A positive test score for a civilian is

35 and a positive score for a “military personnel” is 45. Life-changing results are proven in 100% of patients scoring greater than 50 on the PCL test.

Most patients appear to have long-lasting results with just one treatment while others may require additional re-boots at least three months apart. If a person actively remains in high stress situations, they may be more likely to benefit from repeat re-boots or SGBs.

Stellate Ganglion Block is applicable for the following:

DIAGNOSES	SYMPTOMS
Altered Sympathetic Tone	Poor sleep
Post Traumatic Stress Injury	Poor memory and concentration
Post Traumatic Stress Disorder	Increased irritability
Autonomic Dysfunction	Social avoidance
Stress injury	Being “on edge” without good reason

Stellate Ganglion Block has helped a lot of people get back to their normal baseline. It will not take away a person’s ability to mount an effective response to stress, nor will it take away a person’s edge.

**What must one do before the procedure?**

- Complete a PCL questionnaire
- Inform the healthcare provider of medications and allergies
- Continue to take regular medications
- Learn about the risks and benefits of SGB in a discussion with the provider
- Receive an IV catheter in the hand

**What occurs during the procedure?**

The patient will lie face up on the exam table, awake and alert, for the duration of the procedure  
The skin will be disinfected and an ultrasound probe is placed on the right side of the neck to locate the Stellate Ganglion.  
Under ultrasound guidance, the patient will receive an injection of 6 mL of a long-acting anesthetic (Ropivacaine) around the stellate ganglion.  
The injection takes 10 minutes, but the patient will be monitored for an hour after the procedure.

**The Stellate Ganglion Block has been known to eliminate:**

- Reflex Sympathetic Dystrophy
- Post Traumatic Stress Disorder
- Insomnia
- Inability to relax

Inability to enjoy intimate relations  
Inability to focus and think clearly  
Over-reactivity to stress  
Panic Attacks  
Discomfort with large groups of people  
Inability to function in relationships without over-reacting  
Lack of ability to enjoy life  
Feeling of short life-expectancy  
Glare of lights inhibiting night vision  
Chronic pain in arms or legs  
Swelling of the extremities  
Excessive sweating  
Repeated disturbing memories, thoughts or images of a stressful past  
Loss of interest in things that used to be fun  
Feeling distant or cut-off from other people  
Feeling emotionally numb

### **What can one expect after the procedure**

To feel like their old self again, prior to the trauma that led them to this point  
One to eight hours of a red eye, a feeling of a heavy eyelid, or an altered sensation post procedure is an indication of a successful procedure  
Better sleep  
The ability to enjoy life  
The ability to see, think and respond more clearly and appropriately