About Stellate Ganglion Block (SGB)
The stellate ganglion block is a safe procedure that has been in wide medical use since the 1950’s. It is an injection in the side of the neck done with ultrasound or fluoroscopic guidance to inject a long-acting local anesthetic around the main nerve that controls the “fight or flight” response (the sympathetic nervous system). Done properly, it is consistently described by my patients as a “1 out of 10” for pain. Multiple peer-reviewed medical studies show that a right-sided SGB results in significant long-term improvement in chronic anxiety symptoms associated with post-traumatic stress disorder (PTSD).

What to expect and how to prepare for an SGB
• 1 week prior to the procedure: you need to arrange for a driver to bring you home. Let your doctor know if you are taking anti-coagulant medication (medication to stop you from forming blood clots).
• The day of the procedure: Wear a top that can be removed or will completely clear the right shoulder and neck. Remove any necklaces or large earrings. Avoid eating or drinking for four hours before the procedure. Plan on taking it easy for the rest of the day. Your right eye will look droopy for about 4 - 8 hours, so don’t schedule any important photos of your face.

What happens during the SGB procedure?
First, we will talk to make sure this is an appropriate procedure for you and you will fill out a one-page questionnaire (called a PCL-5). Then we will discuss the procedure, the potential benefits and the potential risks; this is called informed consent and is done before every medical procedure. Let the doctor know if you have any allergies to medicines. You will lay face up on a comfortable treatment table with your right shoulder and neck exposed. An intravenous catheter with saline will be placed. The skin on the shoulder and neck will be cleaned with a surgical skin preparation called Chloroprep and sterile ultrasound gel applied to the neck. The area over and around the 6th cervical vertebra will be scanned with ultrasound and Doppler ultrasound and the anatomic landmarks identified. Once the landmarks are identified, a small amount of local anesthetic will be placed just under the skin to make the procedure more comfortable. Using real-time ultrasound guidance, the needle will be guided alongside the stellate ganglion (the cervical sympathetic chain), which controls the body’s “fight or flight” response. Once the needle is at the target, a long-acting anesthetic called ropivacaine will be slowly injected over 2-3 minutes. During the injection the doctor will ask if you are doing ok; it is safe to answer. Let the doctor know if you are having a metallic taste in your mouth, if there is ringing in your ears, or if you just feel weird. Once the needle is out, a band aid will be placed at the injection site. You will continue to lay flat for 5 minutes, then you will sit up and have your SGB assessed. When the sympathetic nerves are blocked, it results in a temporary condition referred to as a “Horner’s syndrome”; your eyelid will be droopy, your pupil will get smaller than the other pupil, and the white part of your eye may get red. This is a normal part of the block and will wear off in 4 to 8 hours. In about 15% of the cases, patients also
experience a “hoarse voice” or feel as if something is in the back of their throat. This occurs if the local anesthetic used to perform the block spreads and blocks another nerve to the larynx. This is not a mistake, it just happens sometimes and is temporary like the Horner’s syndrome. If this happens, take a few careful sips and make sure you are swallowing normally. We will watch you for another 25 minutes to make sure you are doing ok before you go home.

What to do after your procedure
Generally, patients report only mild soreness which does not require any treatment. Although complications are very rare, pain that is getting worse in your neck or shortness of breath could be signs of a serious complication: you should contact 911 or go to a local emergency room and tell them you had a neck procedure done that day. Avoid showering or immersion in water for the rest of the day of the procedure. The bandage can be removed after a few hours. Most people feel the results of the injection within an hour. Keep track of the symptoms that were bothering you and see what differences you notice. In one week, fill out another PCL-5 questionnaire and mail it to ROSM Annapolis, 116 Defense Highway, suite 203, Annapolis, MD 21401, or email it to (annapolis@rosm.org) so we can track how you responded to the SGB. Also, ask people close to you if they notice any difference in how you have been in the last week. Your experience and the PCL-5 score helps us determine whether this was a good treatment for you and might be useful to you if your symptoms return in the future. Many properly selected patients get sustained relief of their symptoms and do not need further treatment, but in some patients, symptoms may be re-triggered and re-occur. If this happens and the block helped you previously, the SGB may be repeated. Don’t let your symptoms fully return before seeking treatment. If you notice a regression of your symptoms, seek help by calling ROSM Annapolis or a mental health provider. Avoid alcohol, especially before bedtime. Alcohol can interfere with establishing restful sleep patterns. In the published medical literature, many people get significant relief of their PTSD symptoms after a right-sided SGB. However, SGB is not intended to be a stand-alone treatment for significant PTSD or other anxiety conditions and works best when part of a treatment plan with a mental health provider.