# Stellate Ganglion Block

<table>
<thead>
<tr>
<th>Pre procedure clinic visit</th>
<th>• Preferred</th>
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<tbody>
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<td>Pre procedure imaging requirements</td>
<td>• None</td>
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| **Indications** | • Complex regional pain syndrome of the upper extremity (reflex sympathetic dystrophy, causalgia)  
• Herpes zoster of the face, neck, trunk  
• Raynaud’s syndrome of the upper extremity |
| **Contraindications** | • Active infection  
• Uncorrected coagulopathy  
• Allergy to therapeutic substances  
• Untreated heart block  
• Recent MI  
• Glaucoma |
| **Cautions** | • Avoid the vertebral artery (stroke, dissection)  
• Avoid the carotid artery (stroke, dissection, hematoma)  
• Avoid the jugular vein (hematoma)  
• Avoid the perivertebral venous plexus (intravascular injection)  
• Avoid the lung apex (pneumothorax) |
| **Potential risks:** | • Ipsilateral Horner’s syndrome  
• Hoarseness  
• Venous engorgement of the upper extremity  
• Diaphragmatic paralysis (Do not perform this procedure bilaterally at the same setting)  
• Heart block |
| **Room Requirements** | • Good quality single plane fluoroscopy with digital subtraction capability |
| **Tray Setup** | |
| **Patient positioning** | • Supine  
• Neck slightly extended  
• Head slightly turned to opposite side |
| **Preparation** | • Standard prep of lower neck and upper chest  
• Standard heart rate, BP, pulse ox monitoring equipment |
| **Sedation** | • Conscious sedation is not required.  
• Local anesthesia with buffered 1% lidocaine solution should be used  
• Patients are often extremely anxious: valium 10mg PO can be given prior to the procedure  
• IV fentanyl during the procedure may be helpful |
| **Needle** | • 25G, 3.5” spinal needle |
| **Target** | • Oblique fluoro to make the endplates of C6-C7 parallel and open up the neural foramen .  
• Target the anterior third of the base of the C7 uncinate process |
| Prior to injection | Advance the needle to hit the bone, then back the needle off 1 mm.  
| Turn the bevel of the needle down so that the solution is directed inferiorly |
| Therapeutic solution | Inject 1-2 ml Omnipaque 240 with DSA to confirm prevertebral location of the needle tip and to ensure that the needle is not intravascular  
| Inject 0.5 ml lidocaine 1% and monitor heart rate to ensure the needle is not intravascular |
| Therapeutic solution | 3 ml lidocaine 1%  
| 3 ml bupivacaine 0.25%  
| 2 ml celestone (6 mg /ml) |
| Post procedure monitoring | Observe in holding 1 – 2 hours |
| Follow up | Patient requires a phone call the next day and 3-5 days following the procedure.  
| The procedure may need to be repeated to break the cycle of pain (may back off on total steroids injected).  
| Clinic follow-up in 1 week is preferred. |
| Image | ![Stellate Ganglion Block Image](image) |