

## What should I expect after the procedure?

If the procedure has been successful you will feel warmth on the injected side within about three minutes. Your eyelid on that side of your body will become droopy and the pupil of your eye will narrow. Your nose will feel stuffy and blocked on that side and your eye will appear bloodshot. Any pain you had will subside quickly. These symptoms are not side effects but merely show the effect of the local anaesthetic on the stellate ganglion. These symptoms are not permanent and will pass.

As explained earlier, the nerve to your voice box may be affected for a short while so you may be hoarse. Your ability to swallow may also be affected temporarily so you will be advised not to eat or drink for two hours.

You need to keep the injection site clean and dry. You can remove the dressing after 24 hours.

When the procedure is over you will need to rest in the day unit for a while. A chest X-ray may be needed if we suspect you have a pneumothorax (collapsed lung).

## When you leave the hospital

You will need to be accompanied home by a responsible adult. You should not drive or operate any machinery (including a cooker or kettle) for 24 hours.

After a successful block, your need for pain relief medication will decrease. It is important that drugs like amitriptyline, gabapentin and carbamazepine are reduced gradually. They should not be stopped abruptly. Please ensure that you are given a plan on how to adjust your pain relief medication before leaving the day unit.

Should you have any concerns or require advice after the procedure contact the Pain Management Unit on **01473 703435**.

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# Stellate Ganglion Block

**Pain Management Unit**  
**Tel: 01473 703435**

## What is the stellate ganglion?

The stellate ganglion is a collection of nerves lying on either side of the root of the neck. It is a relay station of special nerves (called sympathetic nerves), supplying the head, neck and arms. These nerves control your blood flow, sweat glands and temperature as well as transmitting pain.

## What is a stellate ganglion block?

It is a pain relief procedure in which local anaesthetic is injected onto the stellate ganglion to temporarily stop the transmission of nerve impulses.

The stellate ganglion lies near several important structures: the main arteries supplying the head and brain, the lining of the lungs and the major nerves which supply the arms and hands, so positioning of the injection has to be very precise.

## Why do we block the stellate ganglion?

Stopping the transmission of nerve impulses through the stellate ganglion can be useful in several conditions. In Complex Regional Pain Syndrome there is over-activity of the sympathetic nerves, leading to pain and wasting of the hand and arm. There may also be abnormal sweating and temperature changes. Blocking the stellate ganglion can help control these symptoms.

Performing a stellate ganglion block may also be useful in the treatment of chest pain which is caused by underlying lung or heart problems.

## Are there any risks associated with stellate ganglion block?

- A special needle is used to perform the stellate ganglion block. Strict sterile techniques are used so risks of infection are minimal.
- Mild bruising of the skin and soft tissue at the injection site can occur but should settle after a few days.
- The nerves supplying the shoulder, arm and hand pass very close to the stellate ganglion. Inadvertently touching these with the needle during the procedure may lead to painful stimulation or pins and needles. This is very brief.
- Two other important nerves pass close to the stellate ganglion. One is the nerve which supplies the voice box so hoarseness may occur for a while after the procedure. The other nerve is the one that supplies the diaphragm. If touched you may feel short of breath.
- Small amounts of local anaesthetic are injected around the ganglion to check correct placement. If any anaesthetic leaks into the fluid around the spinal cord it may lead to loss of consciousness. The injection can also cause fits, but these complications are very rare.

- The stellate ganglion is near to the top of the lung and its lining. Accidental puncturing of the lung and its lining may occur resulting in air escaping from the lung but staying within the chest cavity. This causes the lung to collapse (a pneumothorax). Symptoms of this are painful breathing and shortness of breath. If the collapse is severe, it may require the insertion of a fine tube through the chest wall to help the lung inflate again. In the unlikely event of a collapsed lung you would need to stay in hospital for a few days.

## Where and how is the procedure performed?

The procedure is performed in our day unit. You must not eat anything for six hours before the procedure. Please bring a list of all your medications with you. It is also important that you let us know if you have any allergies.

During the procedure you will be lying on your back and looking straight upwards. You will have a plastic needle (intravenous cannula) inserted into the back of your hand.

We will monitor your heart rate and blood pressure. The base of your neck will be cleaned with antiseptic solution, then we may use X-rays to find the correct site for the injection. A fine needle will then be inserted in the correct position and local anaesthetic slowly injected.