

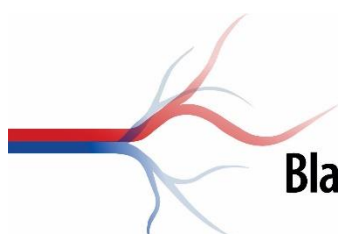
# Thoracic outlet syndrome post-operative instructions

Vascular Department  
Patient Information Leaflet

## Introduction

We hope you find the following instructions to be helpful during your recovery following thoracic outlet surgery. They are designed to be general guidelines only. Please remember that everyone recovers at different rates.

The aim of the first four to six weeks is to protect surgical healing and restore normal movement of the neck and arm. Patients who are struggling to regain normal function of the neck and shoulder may be required to attend outpatient physiotherapy for a more formal assessment.



## General advice

- Avoid lifting anything heavier than half a litre (0.5kg) with your affected arm, as the weight can stress already sensitised nerves.
- Concentrate on maintaining a good posture (chest open and a straight spine) when sitting or standing.
- It may help to sit in a high back chair so that the weight of the head is supported.
- Support the weight of your affected arm as much as possible.
- When walking, support the arm by placing the affected hand in a pocket, or put the thumb through a belt loop on a pair of trousers. If sitting, place the arm on the arm rest, a pillow or an adjacent table.
- Try to walk several times a day for just five to 10 minutes each time.
- Complete the attached exercises and breathing techniques a minimum of three times per day until you are reviewed by your physiotherapist.
- Gradually build up your range of movement. Move to the point of feeling a gentle stretch or mild discomfort. Do not move to the point of significant pain.
- Remember, it is normal to feel some discomfort when moving after surgery.
- Regular exercise will help to reduce the risk of developing ongoing shoulder and neck stiffness. It will also improve the tolerance of nerves to normal movement.
- If you are struggling, please seek further advice from your surgeon or physiotherapist.

## What to expect

- **Pain** - varying levels of pain (which may feel like a spasm) in the neck, back and shoulder region is common during the first few weeks. Regular movement of the neck, shoulder girdle and arm may reduce this. Heat or ice can reduce this pain, but check with your physiotherapist first.

- **Numbness** - numbness at the site of your incision, neck and upper chest is a common symptom. This sometimes occurs along the arm and hand. For most people, numbness in the surgical area will start to reduce by six weeks after surgery, but it can persist for months or years post-surgery.
- **Fatigue** - you will likely feel tired during the first few weeks after surgery. Modify activities accordingly and seek advice from your physiotherapist regarding pacing of activities.
- **Sleeping** – avoid sleeping on your stomach or on the side where your surgery took place. Lying flat on your back with your arms supported on pillows is recommended. It is worth trying a soft towel under your neck and a pillow under your knees.
- **Work** – dependent on the nature of your job, you may be required to take anything from four to 12 weeks off work. In some cases, it may be longer. You may wish to request a sick note on discharge from the hospital.
- **Driving** – you will be unable to drive for the first few weeks due to the effect of sedating medications (medications that make you sleepy or drowsy) and the limitation of pain. **Please seek advice from a doctor or physiotherapist before returning to driving.** Do not drive without a seat belt, even if it is more comfortable.

## Post-op exercises

**These exercises have been carefully selected by your surgeon and physiotherapist.**

- To begin with, you are likely to experience some pulling and discomfort when carrying out these exercises. This is **normal** because of the tissue swelling and muscle spasm associated with your surgery.
- Exercises should not increase your overall pain levels. Any discomfort produced during movement should ease rapidly once you stop moving and return to a resting position.
- When exercising, start slowly and move to the point of a gentle stretch. Over time, you will find that your range of movement improves.
- If you experience pins and needles or increased numbness of the arm

when exercising, try reducing the range of movement.

- It may take several weeks to regain all of your normal and safe neck and arm movement.
- It is normal to feel some pulling over the wound / scar during movement.
- **Please note:** overzealous movement and a premature return to lifting can result in increased muscle spasm and a delayed recovery.

Initially, it is best to perform these exercises lying down, but as you progress, they can be performed standing or sitting tall. For some patients, it may take a couple of weeks before it becomes comfortable to perform whilst sitting.

## 1. Neck exercises

These exercises are important for you to regain full movement of your head and neck. When performed in the seated position, use pillows on your lap to support your arms.

For each exercise, move to the point of a gentle stretch, and then return to the starting point. As it becomes easier, introduce a 'hold' at the end of your range and stretch for five seconds. Gradually build this up to 30 seconds. Repeat each movement five times. Try to repeat little and often during the day. Aim for a minimum of three to four sessions.

### a. Neck flexion / extension:

Perform lying on your back initially, and then progress to standing or sitting tall.

Slowly bend your chin to your chest to look down at the floor.

Return to the neutral position. Pause.

Then, move your head backwards to look up to the ceiling.

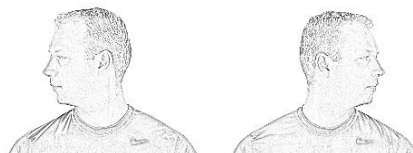
It is normal to feel some pulling over the wound and in the muscle on the front of your neck.



### **b. Neck rotation:**

Perform lying on your back initially, and then progress to standing or sitting tall.

Gently rotate your neck to each side, as if you are turning to look over your shoulder.



### **c. Neck side bending:**

Perform lying on your back initially, and then progress to standing or sitting tall.

Gently tilt your head to each side, bringing your ear closer to your shoulder.



## **2. Shoulder exercises**

Perform these exercises three times each, three times per day and increase the number as the exercise becomes easier.

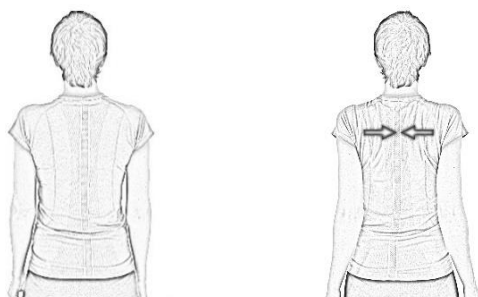
### **a. Chest openers:**

Perform lying on your back initially, and then progress to standing or sitting tall.

Tuck in your chin slightly and keep your spine tall.

With your arms relaxed by your side, gently open your chest and move the shoulder blades together. Avoid aggressively squeezing. Pause, and then gently lower them back down.

As this becomes easier, introduce a five to 10 second hold.

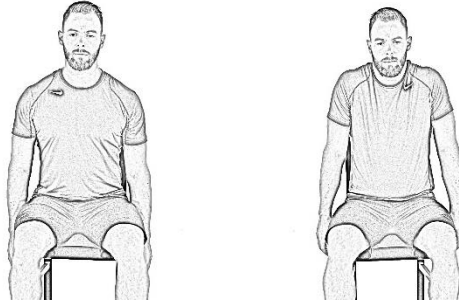


#### b. **Shoulder shrug:**

Perform lying on your back initially, and then progress to standing or sitting tall.

With your arms relaxed, gently shrug your shoulders up towards your ears. Pause, and gently lower them back down.

As this becomes easier, introduce a five to 10 second hold.



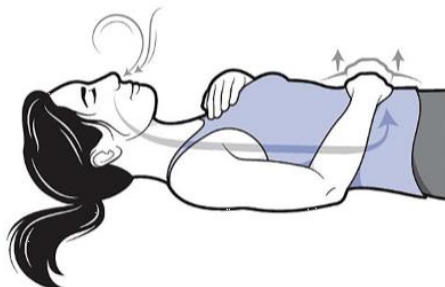
### 3. **Breathing exercises**

Following your surgery, you may notice slight shortness of breath – often due to pain and swelling. To help with this, practice the following exercises:

#### a. **Diaphragmatic breathing**

Breathe at a restful pace using your lower abdomen (diaphragm). Place your hand over your tummy and feel your abdomen gently rise and fall.

Repeat slowly and in a relaxed manner **four times every hour** or when you feel your breathing is uncontrolled or notice your shoulders becoming tight and elevated.



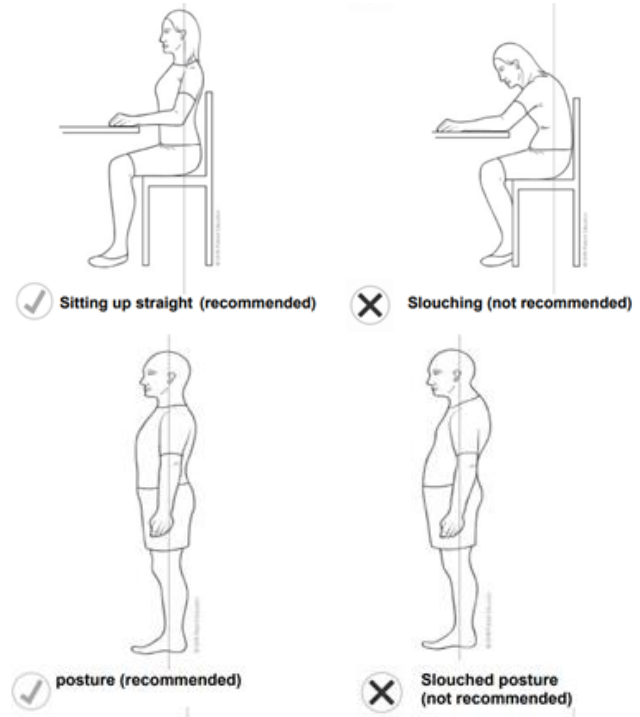
### 4. **Walking**

Regular walking is important throughout your rehabilitation from surgery. We recommend short walks initially for five to 10 minutes up to six times per day. Slowly build this up as your recovery progresses.

When walking, it is important that your affected arm is held supported and not swung by your side as this can cause stress on the healing tissues. We recommend that the hand is placed in your pocket or waistband to support its weight.

## 5. Posture

Aim to sit back into chairs and allow the back rest to support your shoulders and head. Try to sit with your chest opened and avoid slouching even if it feels more comfortable. As your body heals, it will become more comfortable to sit with your chest open. Try to avoid working with the arm outstretched during the first month i.e. keep the computer mouse closer to your body.



## Pain control

You will be discharged home when your pain levels are manageable with tablet painkillers. Initially, you will be provided with a 10-day supply. You will need to contact your GP for a repeat prescription. It is important to continue taking your painkillers on a regular basis as this will allow you to tolerate physiotherapy exercises better and improve quality of sleep.

If you have been prescribed a non-steroidal anti-inflammatory medication such as Ibuprofen, it is important to take this with meals to reduce your risk of gastritis or stomach ulcers. If you have been prescribed 'nerve painkillers' such as Gabapentin, Pregabalin or Amitriptyline, it is important to continue with these until you are directed to start reducing the dose.

## Caring for your surgical wound / scar

- For the first few weeks following surgery, protect your scar and keep it clean. The wounds are usually covered by a Steristrip plaster – this often falls off on its own, but it can be removed after two weeks.
- It typically takes between 10 to 14 days for wounds to heal. During this time, try to keep the wound covered and dry.
- After two weeks, if the wound has healed, you can begin to wash it, but avoid soaking it in a bath. When cleaning the area, use mild soap and water and avoid any excessive rubbing or scrubbing.
- Once your scar has settled down (usually after about six weeks), you can start to gently massage the scar and start using lotion and/or other topical creams such as unperfumed moisturiser or Bio-Oil. This will help to improve the appearance and flexibility of the scar.
- Using Micropore™ surgical tape for a few months over the wound can also aid with scarring and improve the scar quality. Leave it on for five to seven days each time.
- Be sure to protect your scar from the sun. Scar tissue is 'young skin' that has not been exposed to the sun. Use extra sun protection while exposing your scar to the sun.

## Follow up

Follow up with your surgeon will usually be arranged for six to eight weeks following your surgery.

It is also important for you to arrange follow up with your specialist physiotherapist approximately two weeks after your surgery for further evaluation and to commence formal rehabilitation.

## When to get back in touch

If you experience any of the following symptoms, please seek immediate medical attention:

- Difficulty breathing.
- Wound breakdown, oozing from the wound or increased pain.
- If your pain is poorly controlled despite the use of regular medication.
- If you feel unwell and have a temperature.



- If your wound appears red or if there is any evidence of possible infection.
- If your arm becomes swollen.
- If the appearance of your arm does not appear normal, e.g. white / cold or swollen / purple.

## Contact information

Please feel free to contact us if you have any concerns:

### Out of hours / weekends / emergencies / recent discharge

Vascular ward (Ward B3), Russells Hall Hospital, Dudley  
Contact via hospital switchboard on 01384 456111

### Consultant secretaries

Mr Hobbs and Mr Garnham's secretaries are based at The Royal Wolverhampton NHS Trust:  
Mr Hobbs - 01902 695971  
Mr Garnham - 01902 695977

All Russells Hall Hospital consultant secretaries can be contacted via the hospital switchboard on 01384 456111.

## References

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**This leaflet can be downloaded or printed from:**

<http://dgft.nhs.uk/services-and-wards/vascular-service/>

If you have any feedback on this patient information leaflet, please email [dgft.patient.information@nhs.net](mailto:dgft.patient.information@nhs.net)

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