

Sympathectomy

(Bilateral Endoscopic Thoracic Sympathectomy – ETS)

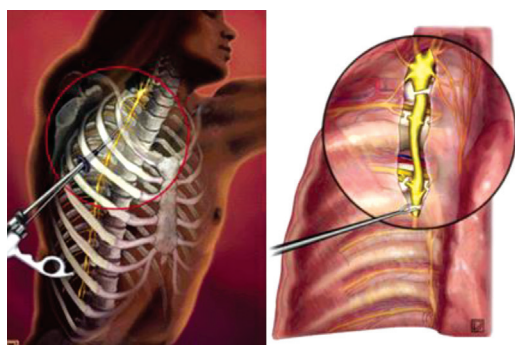
Cardiothoracic Services

Introduction

This booklet will explain the reasons for the operation, the procedure itself, the benefits, potential risks involved, and any alternatives. It will also explain the care you need before and after surgery. Please feel free to ask any questions raised or not addressed by this booklet. The doctors and nurses are available to support you at this time.

What is a Sympathectomy?

Deep inside the chest, a structure called the sympathetic nerve chain runs up and down the ribs near the spine.



During a sympathectomy, a surgeon cuts or clamps this nerve chain. This keeps nerve signals from passing through it.

Why do I need a sympathectomy?

This procedure is used to treat a condition called hyperhidrosis or heavy sweating in the palms of the hands, the face, the underarms, and sometimes the feet. It is also used for facial blushing, some chronic pain conditions and Raynaud's phenomenon - a condition that leads to profound sensitivity to cold temperatures and colour changes of the skin. After a sympathectomy, the brain cannot send signals to the involved areas to make them sweat, blush, or react to the cold as much. This permanent procedure is used as a last resort if other steps, such as antiperspirants or medications, have not worked. Please feel free to ask any questions and voice any concerns you may have about your procedure.

The procedure is carried out under a general anaesthetic by a thoracic surgeon.

The prevention of infection is a major priority in all healthcare and everyone has a part to play.

- Please decontaminate your hands frequently for 20 seconds using soap and water or alcohol gel if available
- If you have symptoms of diarrhoea and/or vomiting, cough or other respiratory symptoms, a temperature or any loss of taste or smell please do not visit the hospital or any other care facility and seek advice from 111
- Keep the environment clean and tidy
- Let's work together to keep infections out of our hospitals and care homes.

Consent

We must seek your consent for any procedure or treatment beforehand. Your doctor will explain the risks, benefits, and alternatives where relevant before they ask for your consent. If you are unsure about any aspect of the procedure or treatment proposed, please do not hesitate to ask for more information.

It is your decision whether or not you have surgery. The doctors and nurses will be available to offer information, advice and support at this time, so please feel free to ask any questions and discuss concerns you may have.

What are the benefits of having the procedure?

The procedure permanently stops sweating in the affected area.

What are the risks involved?

As with any procedure there is a small risk of complications, and this varies from patient to patient. The risks include injury to structures such as blood vessels and lung which may result in bleeding, infection and pain.

General Risks from Surgery and Anaesthetic: Sore throat - It is normal to have some throat discomfort; this should improve over the next few days.

Changes in blood pressure: Often your blood pressure is lower following an anaesthetic. This is normally due to not having anything to drink for a while. You will either be asked to drink more or you may need to have fluids through a tube into a vein in your arm.

Damage to teeth: Because of the nature of the procedure there is a risk that your teeth can be damaged. Although the surgeon and anaesthetist will try to avoid this you must be aware of the risk. Please inform the surgeon/anaesthetist if you have dentures, loose teeth or crowns before the procedure.

Chest infection: After any anaesthetic there is a small risk of developing a chest infection, early mobilisation will help prevent this.

Pneumothorax: Very occasionally the lung will partially collapse following this procedure. It will either resolve on its own or require a chest drain, which will mean having to stay in hospital until it resolves.

Wound infection: Occasionally the wound will become infected requiring antibiotics and wound dressings. Normally this can be treated by your GP and practice nurse.

Bleeding: In very rare circumstances this occurs, requiring the surgeon to make an additional incision to control the bleeding. This will be explained as part of the pre-operative consent process. Blood clots - These can occur in the legs and then travel to the lung. The risk is greatly reduced by wearing compression stockings and early mobilisation.

Specific Risks for Sympathectomy

Compensatory sweating: the body needs to sweat under certain conditions. By reducing the sweating to the face, hands and arms it may result in increased sweating elsewhere on the body. This is known as compensatory sweating. For most people it is a minor inconvenience but in some people it can be a major issue.

What alternatives do I have?

You may choose not to have surgery. The alternatives detailed below may already have been attempted.

Application of Aluminium-based deodorants: These require regular application and cause blockage of the sweat glands. However, it is common to experience irritation which limits their usefulness.

Iontophoresis: The hands (or armpits) can be placed on pads connected to an electrical machine which temporarily reduces sweating. The treatment should be performed every day, but may result in irritation.

Medication: Tablets to dry secretions may be effective in reducing sweating, but will also cause dry mouth and eyes, blurred vision and sedation.

Botulinum toxin injections: Multiple injections deep into the skin result in temporary reduction in sweating for up to 8 months. This procedure is not available on the NHS, and will cost around £500 per treatment session.

Surgery: Other surgical procedures may be considered, such as removing part of the armpit skin or damaging the sweat glands using a laser.

Your doctor would be happy to discuss any alternative treatments or procedures if they are applicable to you.

This is the most common reason for dissatisfaction with the operation and patients who already sweat excessively should carefully take this into account before deciding to go ahead with surgery.

Bradycardia (slower heart rate): The next set of nerves below the arms go to the heart. If these are involved in the surgery the heart will beat slower. It will be slow to respond if you need to run for a bus or perform other exertion. Because this risk is increased we are not prepared to do a radical sympathectomy for axillary hyperhidrosis.

Failure: As with all operations there is a failure rate. The distribution of sympathetic nerves varies from one person to another. Anaesthetic difficulties, adhesions or the presence of blood vessels over the nerves may prevent the surgeon doing as extensive an operation as desired.

Recurrence: The body attempts to compensate for the loss of nerves and there is usually some return of sweating with time.

Horner's syndrome: the next set of nerves up from the hands supplies the eyelid and the pupil of the eye. If these nerves are involved in the operation, a drooping eyelid and a small pupil may result. This effect usually lasts only a few weeks but may be permanent. Because this risk is increased we are not prepared to do a radical sympathectomy for facial flushing.

Excessive dryness of the hands: As sweating on the hands will be significantly reduced your hands will dry out easily. This is worse if your job requires you to use solvents, cement or to wash your hands frequently. You are advised to use moisturising cream frequently.

Residual sweating: Due to variations in the way in which the nerves are connected, there may be residual sweating after the procedure. The procedure can be repeated if this is severe.

Gustatory sweating: Rarely, sweating may occur during eating, but is usually mild.

Preparation for surgery

You may be invited to a pre-admission clinic prior to your admission date, to prepare you for your procedure. Your health will be assessed by a nurse and/or doctor. This may involve having a chest X-ray, a heart tracing (ECG), routine blood tests and a breathing test.

Normally you will be admitted to the ward as a day case on the morning of the procedure, or you may be admitted the day before.

Further investigations listed below may be performed:

- Blood tests
- ECG – heart tracing
- Chest X-ray
- A full set of observations - blood pressure, pulse, oxygen levels, temperature, respiratory rate, weight and height

Before going to theatre the nurses will complete a check-list with you. This will be repeated several times when you go to theatre. This is for your safety.

You will be given pain relief to take home if you require it, as you may need something a little stronger than paracetamol for a few days. Your GP will be sent a copy of your discharge letter informing them of the procedure, medication and follow-up. You must not drive for 48 hours after your procedure, so will need a relative or friend to drive you home. If you go home the same day of your procedure, there must be someone able to stay with you for the first night at home

Expect to feel generally tired and to have slight throat and wound discomfort; this should improve over a few days. Ensure that you rest between activities for the first 24 to 48 hours. We do not recommend returning to work for at least 72 hours after leaving hospital and you may need a few days longer at home.

What happens on the day of surgery?

On the ward

It is very important that you do not eat anything for six hours before your surgery. However, you can drink water or black tea up to two hours before your surgery. You can also drink water with any pills that the anaesthetist asks you to take.

If you are unsure, please ask one of the nurses.

We will ask you to take a bath or shower and put on a clean hospital gown. We will also provide you with compression stockings to help prevent blood clots developing during and after surgery.

Premedication

If you have been prescribed premedication, the nurse looking after you will give you this one to two hours before the surgery, which may make you a little sleepy. Therefore, it is important that you stay in bed after you have taken the premedication or ask us to help you if you need to get out of bed.

Leaving the ward

If your family members want to wait with you before the surgery, please mention this to the ward staff.

When you go into the operating theatre, we will lock away any personal items for safekeeping until you return to the ward. Please pack your toiletries and other small items, which you may need straight after surgery, in a separate bag.

Please remember that you can ask questions at any time if there is anything that you are not sure about.

What happens in the anaesthetic room?

We will check your consent form and wristband and help you onto the operating table.

We will place a small drip, usually in the back of the hand, to help you fall asleep. For major surgery, we may insert another small tube, usually in the wrist, to continuously measure your blood pressure during surgery. Both of these can be done with local anaesthetic so they are not painful.

So we can measure your heart rate and oxygen levels in your blood, electrodes (small sticky patches) will be attached to your chest and an oxygen mask placed over your mouth. This is not painful.

Once you are asleep, a breathing machine (ventilator) will support your lungs. The ventilator is connected to a tube inserted down your windpipe.

The procedure

The surgeon will make 1-4 small incisions (cuts) on one side of your chest below your underarm. Next, your lung will be temporarily collapsed and moved aside to allow the surgeon to reach the nerve chain near the spine.

The surgeon will then insert a small video camera and surgical tools to view and manoeuvre the nerve chain. Next, the surgeon will cut or clamp the nerve chain at the right level, depending on your exact symptoms.

When finished, the surgeon will re-expand the lung, remove the camera and instruments, and sew shut the incision. Then the surgeon will repeat the procedure on your other side.

The operation usually takes 30 minutes.

What happens immediately after surgery?

Before taking you to the recovery unit, we will wake you up and remove the tube in your windpipe. You will then receive oxygen through a facemask.

A specially trained recovery nurse will look after you, making sure that you are not in pain and that you are breathing well. We may also take a chest X-ray while you are in the recovery ward to check that your drains are in place and your lungs are re-inflating, although this is normally done on the ward. Your family and friends will be able to see you when you are back on the ward.

What can I expect after the procedure?

After the procedure you will be taken to a recovery room in theatre and closely monitored until you are awake. You will then return to the ward where nursing staff will continue to regularly monitor your pulse, blood pressure and your breathing.

You may need to wear an oxygen mask for a few hours and you will be given fluids through a drip in your arm. Staff will inform you when you are able to eat and drink.

After surgery, you will be encouraged get out of bed and walk around.

Changes to the planned surgery

Very rarely if there is bleeding during the operation that cannot be controlled through the telescope, the surgeon will need to make a larger incision to gain direct vision and control the bleeding.

Will I have any pain or discomfort after the procedure?

You may feel some discomfort after the procedure but you will be given medication to help control this.

It is our aim to make patients as comfortable as possible after their thoracic surgery. It is important that we achieve this not only for your own comfort, but to ensure that we reduce the risk of complications after the operation. Complications can be caused by restricted breathing due to post-operative pain such as chest infections, sputum retention and poor oxygen take up into the blood stream through partially collapsed lungs.

Local anaesthetic placed into the wound at the time of surgery will last for a few hours. Following this you may require regular pain-relieving tablets. It is important, however, to let the nursing staff know if you are in pain or discomfort.

Leaving hospital

You will usually be able to go home as soon as you have recovered from the anaesthetic, two to four hours after your surgery. A chest X-ray will be taken and reviewed by the medical staff.

You should make provisional arrangements for transport home from hospital prior to your admission.

You may experience some minor soreness, swelling or discomfort at your wound sites, which will settle within two weeks. On leaving hospital, you will be given two weeks supply of pain relieving tablets to take home with you.

You should check your wounds regularly for any swelling or oozing - some bruising and swelling is entirely normal. Should you develop a temperature and become unwell, you should ask your GP or practice nurse to check your wound.

You must not drive or return to work until you have been reviewed at your outpatient appointment; usually about two to four weeks after discharge.

When will I feel the results of my sympathectomy?

After the procedure a member of the team will discuss with you how the procedure went. Usually, the effects of the procedure will be noticed immediately.

When can I resume normal activities?

Depending on your recovery you may be allowed home the same day, or you may have to stay in overnight. If the staff have any concerns about your recovery they may feel it is not sensible for you to go home the same day, in which case you will need to stay in overnight so your condition can continue to be monitored. You may go home once the staff feel you are recovered, you have passed urine, and managed to eat and drink something without difficulty. Before discharge you will be checked to ensure you are ready to go home.

You will have small dressings over the wounds. All the stitches are under the skin and will dissolve on their own so there will be no stitches visible. After 24 to 48 hours the wound dressing can be removed and the wound left exposed if it is clean and dry. It is normal to have some slight swelling and bruising around the wound. This will normally settle in a few days. If the wound is still oozing slightly then a small light dressing can be put on. Your wound will be uncomfortable for several days, so we would recommend that you take pain relief regularly as needed. It is normal for more bruising to become obvious over the first week. If it becomes more swollen, painful, red and inflamed or is oozing anything then please see your GP or practice nurse. The staff will give you instructions about wound care before you go home.

Most patients will be advised to continue to wear the compression stockings on discharge until fully recovered. If you experience any pain or discomfort in your calves (lower legs) or they become swollen contact your G.P.

Further information

We would advise you to contact the ward if you have any of the following:

- Increased shortness of breath
- Vomiting
- A high temperature
- Concerns about your wound(s).

You may be asked to either come back into hospital or to contact your GP.

The procedure can be performed as a day-case or occasionally overnight stay.

The operation may be called any of the following:

- Endoscopic sympathectomy
- Bilateral endoscopic thoracic sympathectomy (ETS)
- Thoracoscopic sympathectomy
- VATS or Robotic assisted Sympathectomy

Contact information

Cardiothoracic Ward / B8

2nd Floor
Wolverhampton Heart and Lung Centre
New Cross Hospital
Wolverhampton
West Midlands
WV10 0QP

Cardiothoracic Wound Clinic / B3

1st Floor / Outpatient Department
Wolverhampton Heart and Lung Centre
New Cross Hospital
Wolverhampton
West Midlands
WV10 0QP

Telephone 01902 307999 ext 6731
(Monday – Friday, 9.00am to 4.00pm)

Additional Information is available from

Patient Liaison Service (PALS)

New Cross Hospital
Tel: 01902 695362. Mobile 07880 601085
Pager: 1463 (Dial 01902 307999 and ask the switchboard operator to connect you to the pager).
email: PALS@rwh-tr.nhs.uk

Websites of interest

<http://www.sweat.com/search/?s=Sweat>
<http://www.sympathectomy.info/>
<http://www.umm.edu/thoracic/thoracic5a.html>
<http://www.hyperhidrosis.org/sympathectomy.htm>

English

If you need information in another way like easy read or a different language please let us know.

If you need an interpreter or assistance please let us know.

Lithuanian

Jeigu norėtumėte, kad informacija jums būtų pateikta kitu būdu, pavyzdžiui, supaprastinta forma ar kita kalba, prašome mums apie tai pranešti.

Jeigu jums reikia vertėjo ar kitos pagalbos, prašome mums apie tai pranešti.

Polish

Jeżeli chcieliby Państwo otrzymać te informacje w innej postaci, na przykład w wersji łatwej do czytania lub w innym języku, prosimy powiedzieć nam o tym.

Prosimy poinformować nas również, jeżeli potrzebowaliby Państwo usługi tłumaczenia ustnego lub innej pomocy.

Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਰੂਪ ਵਿਚ, ਜਿਵੇਂ ਪੜ੍ਹਨ ਵਿਚ ਅਸਾਨ ਰੂਪ ਜਾਂ ਕਿਸੇ ਦੂਜੀ ਭਾਸ਼ਾ ਵਿਚ, ਚਾਹੀਦੀ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

ਜੇ ਤੁਹਾਨੂੰ ਦੁਭਾਸ਼ੀਏ ਦੀ ਜਾਂ ਸਹਾਇਤਾ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

Romanian

Dacă aveți nevoie de informații în alt format, ca de exemplu caractere ușor de citit sau altă limbă, vă rugăm să ne informați.

Dacă aveți nevoie de un interpret sau de asistență, vă rugăm să ne informați.

Traditional Chinese

如果您需要以其他方式了解信息，如易读或其他语种，请告诉我们。

如果您需要口译人员或帮助，请告诉我们。