Anaesthesia for Thoracic Surgery

Information to help patients prepare for an anaesthetic for thoracic surgery

At St George's Hospital (SGH) we perform 900-1,000 thoracic operations each year. All of these operations are performed under general anaesthesia. This leaflet will explain more about your anaesthetic for thoracic (lung and chest wall surgery). It explains what an anaesthetic is, who the anaesthetist is, what preparations you need to make before having an anaesthetic and what happens during and after the anaesthetic.

What is General Anaesthesia (GA)?

General anaesthesia puts you into a state of controlled unconsciousness – this means that you will be asleep and will feel nothing for the duration of your surgery/procedure. A general anaesthetic is essential for most forms of cardiac surgery.

What is an Anaesthetist?

An anaesthetist is a doctor with specialist training who will:

- discuss the different types of anaesthesia with you and help you to make choices if an option is available
- discuss the risks of anaesthesia with you
- agree a plan with you for your anaesthetic and pain control
- be responsible for administering (giving) your anaesthetic and for your wellbeing and safety throughout your surgery
- use special monitoring equipment during heart operations and to provide ultrasound examinations of the heart called transoesophageal echocardiography (TOE)
- manage any blood transfusions you may need
- plan your care in the intensive care unit (ICU), if needed
- make your experience as pleasant and pain free as possible.

What will happen in hospital before my operation?

You will usually be asked to attend the ward either on the day before surgery or on the day of surgery. The time stated in your letter is not the time of your procedure but allows extra time for you to be seen by your surgeon, anaesthetist and other members of the team. This is an opportunity for you to ask any questions that you may have about your anaesthetic.

What preparations do I need to make before my operation?

Fasting

Fasting is a “nil by mouth” instruction that is necessary before a general anaesthetic.
The reason is that during an anaesthetic there is a risk that food or liquid remaining in your stomach could come up to the back of the throat and then be accidently inhaled and cause injury to your lungs. Traditionally, patients have been starved quite a long time before their anaesthetic. Today we know that you can have a light meal up to six hours and clear fluids up to two hours before a general anaesthetic. In fact, you will be encouraged to drink clear fluids to avoid dehydration. Research has shown that this is beneficial for your recovery. This is particularly relevant if your operation is in the afternoon. In that case, please keep drinking during the morning.

Smoking

You should not smoke on the day of your operation.

Medicines

Usually, most of your drugs will be continued during your hospital stay. This is not the case for anticoagulants (blood thinners like aspirin, clopidogrel, and warfarin), some blood pressure drugs, some diabetes medication, herbal medicines and some others which will be specified during your pre-assessment appointment. Do not hesitate to check with your nursing team or doctors if you are unsure. Even if you are “nil by mouth” you can take your medication with a sip of water.

General Health

If you feel unwell on the day or the day before you are coming in for your operation it is best to telephone the ward. We may need to reschedule your operation for your safety.

Dental Health

If you have loose teeth or crowns see your dentist in order to reduce the risk of dental damage during anaesthesia.

What will happen when I am called for my operation?

There are usually four to five patients booked on a thoracic surgical list and you might want to inquire what your position is on the list. The order is usually based on patient factors or special surgical/equipment needs. Sometimes the order has to be changed at short notice as emergencies are being admitted or if other clinical reasons dictate this. Shortly before the procedure, a nurse will walk with you to the anaesthetic room. The ward nurse will formally hand over your care to the anaesthetic team in the anaesthetic room.

The anaesthetic team consists of a Consultant Anaesthetist, an Operation Department Practitioner (ODP) and an Anaesthetic Registrar. The formal handover will include confirming your identity and the site and type of heart surgery to which you have consented. These routine checks are normal in all hospitals.

The team will monitor your heart rate, blood pressure (BP) and oxygen saturations. Prior to the administration of the GA, the Anaesthetist will insert a cannula into a vein in the back of your hand or arm using local anaesthetic. This cannula will be used to administer fluids and anaesthetic medications. Following this your Anaesthetist will insert another cannula into an artery in your wrist, again using local anaesthetic. The second cannula will be used to continuously monitor your BP throughout your operation and in the recovery area post-operatively.

Oxygen will then be given via a face mask and an anaesthetic drug will be given into the cannula in your vein.

Once you are anaesthetised, a breathing tube will be placed into your trachea; in very rare situations another cannula will be placed into your neck vein and very rarely a urinary catheter will be inserted into your bladder. You will not be aware of this as you will be under anaesthesia.

On some occasions the anaesthetist will offer you additional pain treatment which will be administered as an injection in your back (spinal opioids). This option will be discussed with you on the ward before as part of the anaesthetic consent.

What will happen when I am given the anaesthetic?

The anaesthetist will stay with you at all times and will continue to give you anaesthetic medications throughout the operation. This will ensure that you are unconscious throughout the operation.

As well as maintaining your GA, the Anaesthetist will monitor your vital parameters (breathing, heart activity, temperature, total body blood supply, blood biochemistry). If you are having valvular surgery your heart will be continuously monitored. If you require any blood or blood products during your surgery, this will be administered by your Anaesthetist.

At the end of the operation, the anaesthetic team will wake you up and transfer you to the recovery unit. We will continue to care for you there until it is safe for you to return to the normal ward. In some situations, it might be required to transfer you to a High Dependency Unit or the Intensive Care Unit for further treatment and monitoring. Usually this can be planned and discussed with you before the procedure.

What will happen after the operation?

After you have recovered from the immediate effects of the anaesthetic and you are fully alert, comfortable, your vital parameters are stable, your pain is well controlled and you have had a drink and/or snack in the recovery area, we will discharge you to the normal ward.

A lot of effort is made to keep your pain well controlled. We use various techniques including offering you a button to press which is connected to a morphine pump (PCA, patient controlled analgesia), a continuous infusion of a local anaesthetic to the chest wall and nerves (paravertebral catheter) and various intravenous or oral pain killers. This is called multimodal analgesia. The aim is to get you comfortable but also to be able to mobilise, eat and drink and get fit as soon as possible. This is part of a concept called “Enhanced Recovery”.

What are the risks and side effects of having an anaesthetic?

The risks associated with anaesthesia cannot be removed completely, but modern equipment, training and drugs have made it much safer procedure in recent years and serious problems are uncommon. The risk to you as an individual will depend on:

- Your general health and other illnesses
- Personal lifestyle factors, such as smoking or being overweight
- Whether your surgery is complicated, long or performed as an emergency procedure.

These will be discussed at your anaesthetic pre-operative assessment.

Dizziness and feeling faint. Your anaesthetic may lower your BP and you might feel dizzy. This may also be caused by dehydration (when you have not been able to drink enough fluids). If needed, fluids or drugs will be given into your cannula to treat this.	Very common
Shivering You might shiver after your operation because of the effect of the anaesthetic. Generally a hot air blanket is used to warm you.	Very Common
Confusion or memory loss. This might occur among elderly patients after GA and due to various causes. It is generally temporary.	Very common
Postoperative nausea (sickness) and vomiting (PONV). Following general anaesthesia it is possible to have postoperative nausea and vomiting, therefore you will be given regular anti-sickness medications postoperatively. This is a common complication and can last from a few hours to several days.	Very common
Dental damage, oral soft tissue injury, sore throat. During the insertion of the breathing tube into your mouth your teeth, lips or tongue can be damaged (uncommon). Once the operation is finished and the tube is out you might have a sore throat or hoarse voice (common). This is a common occurrence following a GA.	Uncommon to common

Risk of central venous line insertion. A potential risk of the insertion of the central venous line in your neck is the damage of the surrounding structures such as the carotid artery with risk of bleeding and the pleural space with risk of lung collapse.	Uncommon
Allergic reactions. Minor or severe allergic reactions can occur during the administration of any medication with potential life threatening consequences.	Rare
Awareness. Accidental awareness during general anaesthesia occurs rarely but is often something patients worry about pre-operatively (1 in 19,000).	Rare
Aspiration. Before the operation you will be “nil by mouth” (NBM) meaning that you will be given specific fasting instructions by the anaesthetist and the nurse staff on the ward. The reason why you need to be NBM is because of life threatening complications due to the accidental passage of the gastric content into the lungs (aspiration) which could lead to a severe inflammatory reaction of your lungs leading to acute respiratory failure (aspiration pneumonitis).	Rare
Bleeding, Transfusion. Although it is common to require a transfusion of blood products during or after heart surgery, blood transfusion is now very safe. Blood products are screened for viral infections such as hepatitis and HIV and other contaminations. Acquiring an infection from a blood transfusion is a very rare complication. There is also a very small risk of blood reactions due to incompatibility with your blood which can lead to cardiovascular collapse or organ dysfunction.	Very rare
Death. Deaths caused by anaesthesia are extremely rare. There are probably about five deaths for every million anaesthetics given in the UK.	Extremely rare

Risks of spinal opioids

Itching	Very common
Headaches	Common
Pain during injection	Common
Breathing difficulties (respiratory depression)	Rare
Nerve or spinal cord injury	Rare to very rare

In addition to the risks described above, you will be informed about the risks and complications of surgery by the surgeon before the operation. Some of these complications may only become evident later on the ward.

Contact us

If you have any questions or concerns about your admission, you can contact us using the details on the accompanying letter.

Anaesthetic department
St George's Hospital
Grosvenor Wing
1st floor
Blackshaw Road
London
SW17 0QT

Tel: 020 8725 3317 (anaesthetic department)
Tel: 020 8672 1255 (switchboard)

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit www.stgeorges.nhs.uk

Additional services

Patient Advice and Liaison Service (PALS)

PALS can offer you on-the-spot advice and information when you have comments or concerns about our services or the care you have received. You can visit the PALS office between 9.30am and 4.30pm, Monday to Friday in the main corridor between Grosvenor and Lanesborough wings (near the lift foyer). **Tel:** 020 8725 2453 **Email:** pals@stgeorges.nhs.uk

NHS Choices

NHS Choices provides online information and guidance on all aspects of health and healthcare, to help you make decisions about your health.
Web: www.nhs.uk

NHS 111

You can call 111 when you need medical help fast but it's not a 999 emergency. NHS 111 is available 24 hours a day, 365 days a year. Calls are free from landlines and mobile phones.
Tel: 111

AccessAble

You can download accessibility guides for all of our services by searching 'St George's Hospital' on the AccessAble website (www.accessable.co.uk). The guides are designed to ensure everyone – including those with accessibility needs – can access our hospital and community sites with confidence.