

# Your Anaesthetic for Heart Surgery

## Information to help patients prepare for an anaesthetic for heart surgery

**At St George's Hospital (SGH) 900 to 1,000 heart operations are performed each year. All these operations are performed under general anaesthesia. This leaflet will explain more about your anaesthetic. 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 accidentally 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 to reduce the risk of dental damage during anaesthesia.

## What will happen when I am called for my operation?

If your operation is the morning case, at 8am a nurse will walk with you to the anaesthetic room. If your procedure is in the afternoon then this will occur in the early afternoon. There are usually two heart operations per day in each operating theatre with operations taking around four to five hours. 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 CTICU (Cardio-Thoracic Intensive Care Unit) post-operatively.

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

When you are anaesthetised, a breathing tube will be placed into your trachea, another cannula will be placed into your neck vein and a urinary catheter inserted into your bladder. You will not be aware of this as you will be under anaesthesia. If a heart ultrasound is required for your surgery (usually all valvular heart surgery), your anaesthetist will insert this into your gullet (oesophagus) at this point.

## **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.

The anaesthetic team will transfer you to CTICU at the end of surgery and hand over your care to the Intensive Care team. You will still be asleep at this stage.

## **What will happen after the operation?**

The Cardiothoracic Intensive Care (CTICU) team is made up of several CTICU nurses, intensive care registrars and consultants. Many of them are Cardiac Anaesthetists, some are designated Intensive Care Doctors. You will still be asleep under GA when admitted to CTICU where you will be monitored. Usually you will be woken up two to four hours post-operatively and you will usually spend one night in the CTICU before being discharged to the ward the following day where you will be under the care of your surgical team.

Your relatives are allowed to visit you during your CTICU admission. They should liaise with the CTICU nursing staff to arrange this.

## **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 a 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.

<p><b>Dizziness and feeling faint</b> 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.</p>	<p>Very common</p>
<p><b>Shivering</b> You might shiver after your operation because of the effect of the anaesthetic. Generally a hot air blanket is used to warm you.</p>	<p>Very Common</p>
<p><b>Confusion or memory loss</b> This might occur among elderly patients after GA and due to various causes. It is generally temporary.</p>	<p>Very common</p>
<p><b>Postoperative nausea (sickness) and vomiting (PONV)</b> 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.</p>	<p>Very common</p>
<p><b>Dental damage, oral soft tissue injury, sore throat</b> 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.</p>	<p>Uncommon to common</p>
<p><b>Risk of central venous line insertion</b> 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.</p>	<p>Uncommon</p>
<p><b>Risk of TOE probe insertion</b> During the insertion of the TOE into your stomach, oesophageal damage may occur.</p>	<p>Rare</p>
<p><b>Allergic reactions</b> Minor or severe allergic reactions can occur during the administration of any medication with potential life threatening consequences.</p>	<p>Rare</p>
<p><b>Awareness</b> Accidental awareness during general anaesthesia occurs rarely but is often something patients worry about pre-operatively. It is very rare (1 in 19,000) but historical data may suggest that it is slightly higher during cardiac surgery (1 in 10,000).</p>	<p>Rare</p>

<p><b>Aspiration</b></p> <p>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).</p>	Rare
<p><b>Bleeding, Transfusion</b></p> <p>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.</p>	Very rare
<p><b>Death</b></p> <p>Deaths caused by anaesthesia are extremely rare. There are probably about five deaths for every million anaesthetics given in the UK.</p>	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 become evident during your admission to the CTICU where any organ dysfunction will be treated.

## Contact us

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

**For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit [www.stgeorges.nhs.uk](http://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](mailto: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](http://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 our services by searching 'St George's Hospital' on the AccessAble website ([www.accessable.co.uk](http://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.



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