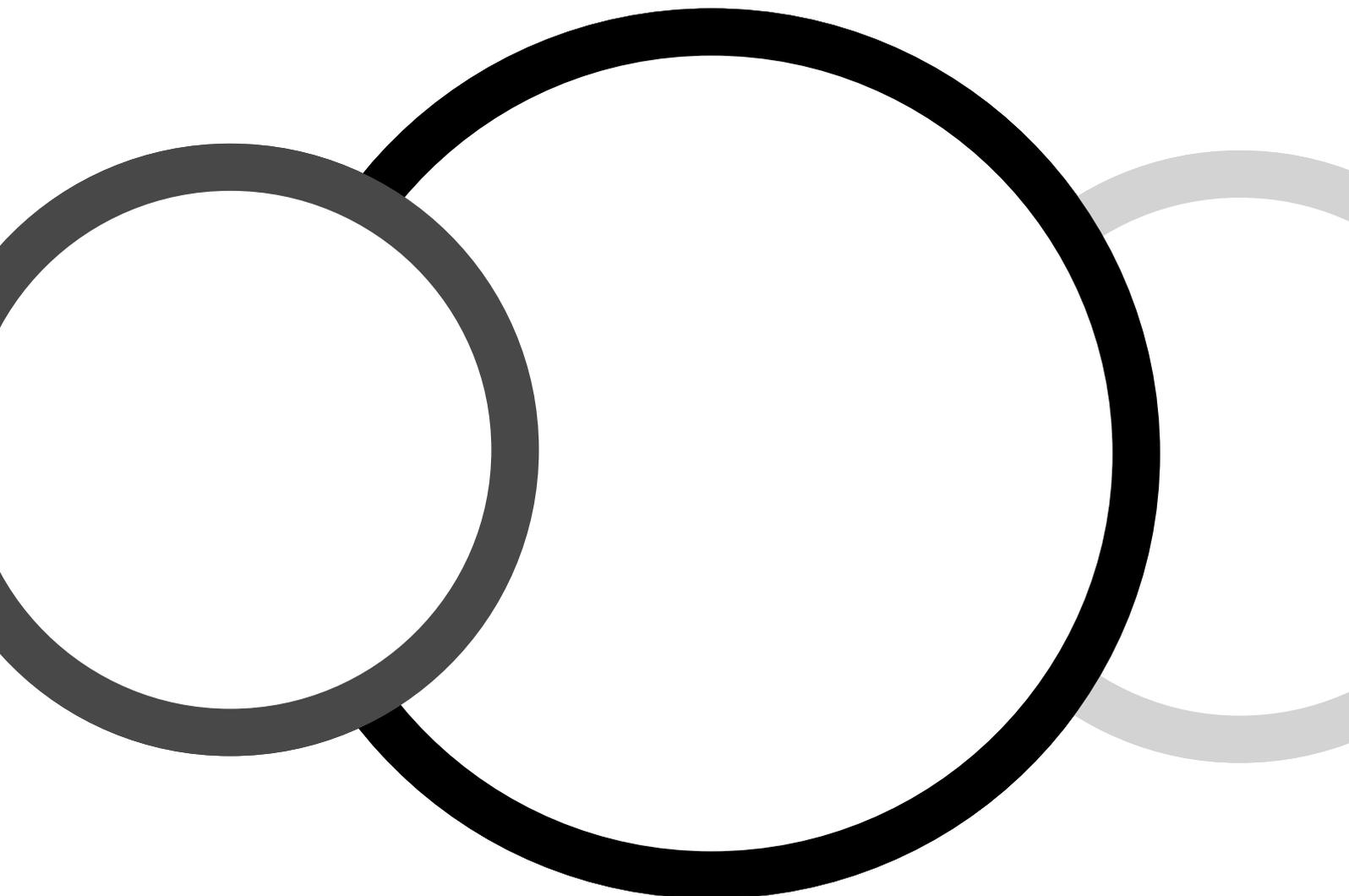


The Essex  
**Cardiothoracic Centre**  
**Patient Information**

# Giving your consent



This leaflet explains about giving your consent for a procedure to be carried out.

It is important to understand that all procedures carry a degree of risk. To give your consent you need to know and understand why you are having a particular procedure / operation and the risks and complications that are involved. For some procedures you will be asked to sign a consent form before this can go ahead.

### **Why do I have to sign a consent form?**

It's important that you give your permission for a procedure to go ahead. By signing the consent form you are telling the doctors that you agree to have the operation/ procedure and also that you understand the risks, benefits and complications that can occur.

### **Signing the consent form**

Your operation will be explained to you by a doctor or a specialist nurse before the procedure. They will fully explain the procedure to you before you sign the consent form. Valid consent for your operation can only be obtained by a medical practitioner who is trained and capable of performing the procedure. They will have the knowledge, skills and experience to explain the benefits, risks and complications of the operation / procedure. In some cases

a suitably qualified doctor or specialist trained nurse other than the consultant or doctor who will carry out the actual procedure will obtain your consent.

The major, significant complications will be written on the consent form. However, this will not include all of the possible risks and complications.

If you have any questions regarding the anaesthetic or the operation, please ask. If you do not understand what you have signed, you should ask the doctor or nurse to explain more clearly.

You will be given a copy of the consent form for your own records. If you are not given your copy of the consent form please ask the staff to give this to you.

You will usually be asked to first sign your consent form in the outpatient department. You should bring this signed form with you

when you are admitted to hospital. This allows us to ensure that the intended procedure is still acceptable to you.

However, the consultant cardiothoracic surgeons may defer your final consent signing for some cardiac procedures, e.g. if you are to have a mechanical or tissue valve, so you have the opportunity to research this and consider the options available to you.

In these circumstances your surgeon will write to your GP describing the discussions regarding the operative procedure in the outpatient consultation and the details of the risks, benefits and complications described for your consideration. You will be sent a copy of this letter.

If you do not receive a copy please contact your consultant's secretary.

Consent to one procedure does not give the doctors an automatic right to undertake another or different procedure unless an emergency arises when you are anaesthetised. In this case the doctor may undertake further treatment if findings during the operation warrant immediate action. In such circumstances it would not be appropriate to wake you from the

anaesthetic to gain your consent. Apart from this very rare situation each separate and different procedure requires a separate and different consent form.

Should you have an advanced directive or living will please inform the nursing staff and your doctor and anaesthetist. Please let staff know of your personal choices if you have any objections to receiving lifesaving blood products or carry a donor card.

## What are the general risks of having any procedure?

- **Infections** can occur as a result of surgical cuts (incisions), needle and cannula puncture sites.  
  
Also, any operation will leave you less likely to be able to fight off infection. Infections such as chest infections and septicaemia (infection of the blood) can result from the impact of the procedure on your body.
- **Bleeding** from the surgical cuts or needle and cannula sites. This is called haemorrhage and if significant can lead to shock.
- **Blood clots** can form, usually in the deeper veins in the lower legs or upper arms. This is known as Thromboembolism or deep vein thrombosis (DVT). When clots detach and travel in the blood they can lodge at any point in any vein. All veins in the body ultimately end in the right side of the heart and then the lungs. A blood clot in the lungs is known as pulmonary embolism (PE).
- **Backache** is common after surgery. It may be caused by lying on a firm flat operating

table. (A study in 2010 found that there is no increased risk associated with the use of epidural anesthesia and long term backache).

- **Minor headaches** are common after surgery. The chance of getting headaches is less than 1%. Headache is possible if the dural membrane is punctured accidentally.
- **Allergic reactions** to drugs, dressings or skin cleansing agents.
- **Heart problems** leading to cardiac arrest (this is rare).
- **Intubation difficulties** when passing a tube into your windpipe when you are anaesthetised (intubation). When the insertion of the airway tube is difficult the teeth can be loosened, chipped or knocked out. In extremely difficult cases an emergency tracheostomy (hole in the windpipe) has to be made to allow oxygen into the lungs (very rare).

Relatively minor complications include pain, nausea, vomiting, headaches and sore throat following anaesthetic.

There may also be other complications specific to, and associated with, the particular operation you are having.

### **Information regarding Anaesthesia and Anaesthetists**

A patient having cardiac or thoracic surgery normally has a general anaesthetic. A general anaesthetic is when you are made unconscious.

An anaesthetist is a doctor who, following qualifications in medicine, takes further training to become a specialist in anaesthetics and anaesthesia. This enables them to make decisions on the care you will receive, not only during your operation but also in the time before surgery and during your immediate recovery.

The anaesthetist will ask you about your general health, your previous medical and surgical history, any medication you are taking, whether you smoke, drink alcohol, take recreational drugs and any allergies you have.

Please advise the anaesthetist of previous anaesthetics or drugs that you have had a reaction to.

How anaesthetics have previously affected you are important to the anaesthetist i.e. reactions such as vomiting, headaches etc.

How many anaesthetics and how recently you have been given anaesthetic is also important information to give to your anaesthetist.

From the information you give and the surgery you are having, the anaesthetist will make an assessment and plan your care together with your consultant, doctors and nurses caring for you. This will be explained to you.

You will see someone from the anaesthetic team before your operation, usually on the ward before you go to the operating theatre. In some cases you may come into hospital a day or two before your operation if you have a pre-existing medical condition, as this may require closer monitoring before a general anaesthetic or particular medications are given.

A general anaesthetic is a form of temporary unconsciousness, which is carefully controlled by the anaesthetist. Your surgeon may refer to an anaesthetic as deep or light. This refers to the type of

drugs used and for how long you need to be anaesthetised.

During a general anaesthetic the anaesthetist will be monitoring your condition all the time. They look after every part of the normal workings of the body, taking away pain, replacing body fluids, keeping your body temperature stable and carefully monitoring and controlling all the vital functions of your body. These include your heart function, blood pressure, breathing, brain and kidney function.

With modern anaesthetic drugs the effects can wear off very quickly and recovery is much quicker. The anaesthetist controls your anaesthetic by removing or adding certain drugs during your operation. During your operation you will be given different types of drugs:

- Some take away pain.
- Some block certain reflexes.
- Some make you sleepy.
- Some stop you feeling sick.

Following your operation, the anaesthetist will plan care for the control of any pain and sickness that you may experience.

## **Are anaesthetics safe?**

Anaesthetics are safe, but any operation and anaesthetic carries a slight risk. These will be explained to you.

In a recent survey of operations in the UK, death due to anaesthesia occurred in five out of every one million anaesthetics given. This is a very low percentage.

People who are very ill or have certain medical problems have a higher risk than people who are fit and well. People who smoke have a higher risk during anaesthetics.

Sometimes the anaesthetist may discover something about your general health which has significance to the anaesthetic and the operation. Their specialised knowledge about this may mean that your operation is delayed until the condition is treated or improved.

The anaesthetist's main concern is your wellbeing and therefore it is best for you to be as fit as possible before an operation proceeds.

Do not eat for six hours before your operation. You may have small volumes of clear, non-alcoholic fluids up to three hours prior to your operation. This fasting period may vary from procedure to procedure and will depend on other health issues that you may have. Your nursing team will advise you on the fasting times.

Fasting for a minimum of six hours is very important to your safety under anaesthetic. If you have food or drink in your stomach when you have an anaesthetic then it is possible that you may be sick while you are unconscious.

Anaesthetic drugs depress the cough reflex so if you are sick under the anaesthetic you may inhale the vomit into your lungs, which can be dangerous.

Do not chew gum or suck sweets in the period of fasting prior to an anaesthetic – as this can cause there to be increased fluid in the stomach.

## **How will I be given the general anaesthetic?**

You will usually be given an injection in the back of your hand to send you off to sleep. Once you are asleep you are never left alone during your operation. Drugs are constantly given to keep you safe and pain free.

While you are anaesthetised, your vital bodily functions will be monitored.

Once the operation is finished, the anaesthetist will give you drugs to reverse the effect of the anaesthetic and wake you up.

You will usually wake up in the recovery area in the operating theatre. When the nurse is happy with your progress and level of consciousness you will be allowed back to the ward.

## **Will I wake up in the middle of the operation?**

Anaesthesia is very safe. According to a recent survey the chances of awareness during any operation is 1:15,000, which is very low.

## **Specific risks with epidurals**

### **Very common or common side effects and complications**

- **Inability to pass urine**

The epidural affects the nerves that supply the bladder, so a catheter will usually be inserted to drain urine away. A catheter is often necessary after major surgery even if you do not have an epidural, to keep a close check on the rate of urine production. Bladder function returns to normal after the epidural wears off.

- **Low blood pressure**

The epidural affects the nerves going to your blood vessels, so your blood pressure will drop a little. Fluids and/or drugs can be put into your drip to treat this. Low blood pressure is common after surgery, even without an epidural.

- **Itching**

This can occur as a side effect of pain-relieving drugs that may be

mixed with the local anesthetic in your epidural. It can be treated with anti-allergy drugs.

- **Feeling sick and vomiting**

These can be treated with anti-sickness drugs. These problems are less frequent with an epidural than with most other methods of pain relief.

- **Inadequate pain relief**

It may be impossible to place the epidural catheter, the local anesthetic may not spread adequately to cover the whole surgical area, or the catheter can fall out. Other methods of pain relief are available if your epidural fails.

## **Uncommon complications**

- **Slow breathing**

Some drugs used in the epidural can cause slow breathing and/or drowsiness requiring treatment.

- **Catheter infection**

The epidural catheter can become infected and may have to be removed. Antibiotics may be necessary. It is very rare for the infection to spread any further than the insertion site in the skin.

## Rare or very rare complications

Other complications, such as convulsions (fits), breathing difficulty and damage to nerves are rare.

### ● Nerve damage

Nerve damage is not spinal cord damage and does not reflect the incapacitation that is involved with it. The incidence of paralysis following an epidural is 1:100,000. Isolated nerve damage is usually reversible with only temporary disability if at all.

Permanent disabling nerve damage and spinal cord damage leading to permanent paralysis are possible complications.

- **Epidural abscess (infection), epidural haematoma (blood clot)** can lead to permanent spinal cord damage and is very rare.

- **Cardiac arrest** (stopping of the heart) is very rare.

These risks can be discussed further with your anaesthetist who can take into account your personal circumstances.

## Specific risks with open heart surgery

There are five main types of heart surgery:

- CABG (coronary artery bypass graft)
- Valve
- Valve + CABG
- Valve + Other including operations on major blood vessels like the aorta.

If the surgery is planned it is known as 'elective', if it is not then it is emergency or urgent.

The risks for elective surgery are usually lower than for the same procedure carried out urgently or as an emergency.

Advances in surgery such as keyhole techniques or CABG with the 'beating heart' can be used for some patients but not all and have slightly different risks and complications. Please ask your doctor to explain the risks of your procedure to you.

Most open heart operations will take more than a few minutes to perform and need the heart to be still and motionless. If the heart is still or motionless for more than two

or three minutes then brain damage and death will rapidly occur. This is avoided by the use of a heart-lung bypass machine which performs the function of the heart and lungs while the surgeon performs the operation.

A pump does the job of the heart and an artificial lung, known as an oxygenator, does the job of the lungs. There is a network of tubing to connect the cannula in the patient, the oxygenator and the pump.

A cannula is placed in the right-hand side of the heart, so the blood can be drained to the Cardio-Pulmonary Bypass (CPB) system set up on the heart-lung bypass machine.

Blood is returned to the patient through a cannula usually placed in the aorta.

Heparin, a drug to stop blood clotting, is given to the patient just before they are attached to the system. The blood is filtered before entering the body.

A perfusionist who is a clinical scientist who has undergone considerable training, operates the machine. Safety is paramount.

Problems are rare and the perfusionists are trained to deal with issues that may arise. The CTC has a very experienced team of perfusionists.

After the surgeon has completed the procedure, the heart-lung bypass machine is detached and the operation completed. Complications can occur at this stage.

These are:

- **Bleeding** – this occurs because the heart-lung bypass machine can only work when the patients' blood is deliberately and temporarily prevented from clotting and because the blood cells responsible for normal clotting (the platelets) are damaged slightly as they travel through the machine. It also occurs from the stitching which can 'leak'. This bleeding can occur inside the brain (rarely) and cause a stroke.
- **Stroke** – there are different types of stroke and different causes of stroke during all types of cardiac surgery.

All valve surgery, particularly aortic valve replacement, is associated with an increased risk

of stroke. This is mainly because of the debris created when the aorta is cut open to access the aortic valve. This debris can float into the blood (embolise) and lodge in the brain arteries where it can result in a stroke. This is called a Cerebro-Vascular Accident (CVA).

Stroke occurs in 0.8% of CABG operations. This figure may be higher if there are other health related conditions such as arterial sclerosis, cerebral vascular problems and high blood pressure.

There are additional causes of stroke which are common to all heart operations as a result of the blood thinning needed for the heart-lung bypass machine to work. It can be caused by the manipulation required to attach the heart-lung bypass machine, by the inflammation the machine can induce, and by the ups and downs in blood pressure that are unavoidable during this type of surgery.

Sometimes a 'mini' or temporary stroke occurs which lasts for 24 hours. This is known as a Transient Ischaemic Attack (TIA).

It is caused by small blood clots lodging in the brain arteries to temporarily block them. When the clot dissolves the brain function can be restored.

It is usually difficult to distinguish these varied causes from each other at the time of surgery.

- **Infection** – open surgical wounds of all types are at risk of becoming infected.

Blood transfusions are known to suppress the immune system and are avoided where possible during cardiac surgery for this reason.

Other diseases such as diabetes and narrowed blood vessels can also heighten the risk of infection.

In heart surgery the main large wounds are in the middle of the chest, in the legs and sometimes in the forearms (when radial arteries are used for the CABG). The chest wound is the largest and underneath it is a large broken bone called the sternum. All broken bones take 8-10 weeks to heal. Wound infections can be superficial or deep (rare) and inhibit and delay the normal speed of healing.

- **Renal failure** – this can occur because the patient has other diseases such as diabetes, high blood pressure and narrowing of blood vessels that have damaged the kidneys before the operation. During the operation kidneys temporarily ‘shut down’ and restrict the amount of urine they excrete. Many of the drugs necessary for anaesthesia and prevention of infection also have a negative impact on the kidneys. This can lead to temporary renal failure which may require temporary dialysis as a treatment.

- **Chest infection/pneumonia** – this can occur for two main reasons in heart surgery. Firstly because the lungs are temporarily switched off while the heart-lung bypass machine is being used. The length of the operation can mean that the back of the lungs collapse through the effects of gravity (atelectasis).  
Secondly, the patient will not be able to get rid of the normal secretions which are usually removed with a cough. Pain, drowsiness, tiredness and the broken bone in the middle of the chest all contribute to this.

## **What will happen if I decide not to have the procedure?**

It is your decision whether to have a procedure. If you decide against having it your consultant will discuss other options that may be suitable for you.

If you need any additional information, please contact the pre-assessment nurses or the specialist nurses caring for you.

## **Providing you with a high standard of care**

We aim to provide you with a high standard of care and treatment during your stay with us. If you are unhappy with the standard of care you receive at any time, please let us know by:

- Speaking to a senior member of staff, senior sister or lead nurse. They will help to sort out any problems, and answer any questions you may have regarding your care and treatment.
- If you have any comments regarding your stay, please speak to a senior member of staff before you leave, as we would like to be able to provide you with a response before you go.

- Alternatively you may take a concern to the hospital Patient Advice and Liaison Service (PALS), who will investigate on your behalf, or tell you how to make a formal complaint if you would like to do so. Their office is situated by the main reception in Basildon Hospital or they can be contacted on 01268 394440.

Please ask the staff caring for you if you would like further information.

We wish you a comfortable stay and a speedy recovery.

The UK national outcomes from cardiac surgery procedures is available for you to see on the SCTS website ([www.scts.org](http://www.scts.org)). However, the information is from previous or historical outcomes so lags behind current outcomes.

Information listed includes the number of patients who die as a result of the surgery. This is called the procedure 'mortality'.

Elderly patients or those with other additional illnesses are at higher risk and have a higher mortality. Surgeons operating on elderly patients or who do more emergency and urgent surgery will have more patients under their care who die as compared to those who operate on lower risk patients. This is because their patients carry more risk.

## **Acknowledgement**

Ben Middleton – Senior Perfusionist

Further information regarding anaesthetics can be obtained by contacting:

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The Trust will not tolerate aggression, intimidation or violence directed towards its staff.

This is a smokefree Trust. Smoking is not allowed in any of our hospital buildings or grounds.

This information can be provided in a different language or format (for example, large print or audio version) on request.