



Guy's and St Thomas'
NHS Foundation Trust

Having an anaesthetic



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This leaflet has been developed for adult patients who expect to have an operation or treatment requiring an anaesthetic. It explains what an anaesthetic is, how to prepare for it, and what to expect when you come to hospital. If you have any concerns or do not understand something we have told you, please ask your doctor, nurse or anaesthetist for more information.

What is anaesthesia?

Anaesthesia stops you from feeling pain during the operation or treatment. There are different types of anaesthetic:

- A **local anaesthetic** uses an injection to numb a part of your body. You stay awake but do not feel pain.
- A **regional anaesthetic** uses an injection to numb a larger part of your body (such as an arm or a leg). You stay awake but do not feel pain.
- A **general anaesthetic** gives a state of controlled unconsciousness during which you feel nothing. This is essential for many operations and you will be asleep for the entire procedure.

Anaesthetics are given by specially trained doctors called anaesthetists. The anaesthetist is responsible for your wellbeing and safety throughout your operation or treatment, and together with you he/she will plan the type of anaesthetic and pain control that is most suitable for you.



Before you come into hospital

To prepare for your operation or treatment you should:

- stop smoking
- lose weight if you are overweight
- see a dentist if you have loose/broken teeth
- have a check-up with your GP if you have a long-term condition, such as asthma or diabetes.

Health check before your anaesthetic and surgery

You will be asked some questions about your health before your operation or treatment. This may be during your pre-assessment appointment, or on your ward.

This assessment is carried out to make sure that you are well enough for your operation or treatment. You will be asked about:

- your general health and fitness
- any serious illnesses you have had
- any family members who might have had problems with anaesthetics
- any allergies you have
- any loose teeth, caps, crowns or bridges
- whether you smoke, drink alcohol or use any recreational drugs.

If any tests are required, such as blood tests, electrocardiograph (ECG) or chest x-ray, these will also be arranged.

Please bring all of your medicines with you, including those prescribed by your GP, medicines you have bought yourself or alternative medicines, such as herbal remedies (over the counter).



On the day of your operation or treatment

Fasting or 'nil by mouth' instructions

Fasting means that you cannot eat or drink anything (except non-fizzy water) for six hours before surgery. This means that you cannot suck on sweets or chew gum. You are allowed to drink water up to two hours before surgery. **If you continue to eat or drink after this, your surgery will be cancelled.**

It is important that you follow the fasting instructions below. If there is food or liquid in your stomach during the anaesthetic, it could come up to the back of your throat and damage your lungs.

The instructions you need to follow will depend on when your surgery is scheduled for:

- For **morning** surgery, coming to hospital at 7am.
Do not eat after 2am. You may drink water till 6am.
- For **afternoon** surgery, coming to hospital at 11am. Have a light breakfast of tea/coffee with toast/cereal before 7am and then **do not eat** after 7am. You may drink water till 11am.

If you are given a different time to come into hospital for morning or afternoon surgery, you must still follow the fasting times above.

Even if you are expecting to have your procedure under a local anaesthetic, please follow the above guidelines if you are likely to require sedation (to help relax you).

Please note that for certain procedures there is a specialised fasting protocol which involves carbohydrate-rich drinks. If this applies to your procedure, you will be advised how and when to take these drinks before you come in for your treatment.

Medicines

If you are taking any medicines, you should take your usual dose with a small sip of water **before 6am** on the day of surgery, unless your anaesthetist/surgeon has asked you not to. If any of your medicines need to be temporarily stopped or adjusted around the time of your surgery or treatment, you will be given information on how to do this at your pre-assessment appointment.





Meeting your anaesthetist before your operation

Except for some minor procedures, you will meet an anaesthetist before your operation. He/she will look at the results of your health check and may ask you more questions about your health. The anaesthetic that will be used depends on the type of operation, your physical condition and your preferences.

We want to involve you in decisions about your care and treatment. Please tell your doctor/anaesthetist if you choose not to have the treatment, or if you want more information or time to decide. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree to have the treatment and you understand what it involves.

If you would like more information about our consent process, please speak to a member of staff caring for you.

Going to the operating theatre

You will go to anaesthetic room with a nurse if you have been admitted to the ward prior to your surgery. Otherwise theatre staff will collect you from the Surgical Admission Lounge (SAL). The nurse may stay with you until you are asleep. The theatre staff will check your identification bracelet for your name, date of birth and hospital number. They will also ask you about other details in your medical records as a final check that you are having the the correct operation, recheck about any allergies that you may have, and check the consent form that you have signed.



The anaesthetic

For all anaesthetics you will be attached to monitors to measure your heart rate, blood pressure and oxygen levels.

General anaesthetic

- The general anaesthetic drugs are injected through a thin plastic tube that is placed via a needle into a vein in the back of your hand or arm. The anaesthetist will tell you when you will be given the anaesthetic drugs. You will usually be given pure oxygen via a plastic mask prior to the drugs being administered.
- You will become unconscious within a minute or so. The anaesthetist will then continue to give drugs into your vein or anaesthetic gases to breathe (or both) to keep you anaesthetised (unconscious).
- When the anaesthetist is satisfied that your condition is stable, you will be taken into the operating theatre. Throughout your anaesthetic and operation the theatre staff will look after you and treat you with care and dignity.
- At the end of the operation, the anaesthetist will stop giving anaesthetic drugs and you will start to wake up. When it is certain that you are recovering normally, you will be taken to the recovery room. Most people regain consciousness in the recovery room where nurses will monitor you until you are fully awake. **If you are in pain or feel sick, tell the nurses so they can give you treatment for this.** Oxygen will be given to you through a plastic mask that covers your nose and mouth.
- Once the nurses are satisfied that you have recovered from your anaesthetic, you will be discharged home or will be taken to the ward. The need to stay in hospital will be discussed with you prior to your surgery, but occasionally the plan may be amended due to a change in circumstances. It will depend on the type of operation that you had how long it will be before you can start to drink or eat. After minor surgery, this may be as soon as you feel ready. Even after major surgery you may feel like sitting up and having something to eat or drink within an hour of regaining consciousness. Ask the nurses/doctors if you are unsure of whether or not you are allowed to drink/eat.

Local and regional anaesthetics

- The site of the injection will be cleaned and you will be asked to keep still while the injection is given.
 - **Local anaesthetics** are usually given to you while you are awake and are used for minor procedures only.
 - **Regional anaesthetics** are usually given to you while you are awake, in the anaesthetic room. The most common regional anaesthetics performed at Guy's and St Thomas' are spinal, epidural and brachial plexus blocks (please see next page for details).
- You may notice a warm tingling feeling as the anaesthetic begins to take effect. Some patients feel as though the part of their body which is anaesthetised does not belong to them.
- Your operation or treatment will only go ahead when the area to be treated is numb.
- During the operation or treatment a cloth screen is used to shield the operating site.
- Except for some minor procedures, the anaesthetist is always near you and you can speak to him/her at any time.
- It may take a few hours for feeling to return to the area of your body that has been numbed.

If you are having a local or regional anaesthetic, you may also be given some sedation to help you relax. There is always a chance that your local or regional anaesthesia may have to be changed to a general anaesthetic (for example if you are experiencing pain during the procedure).



Types of regional anaesthetics

Spinal and epidural anaesthetics are used for operations on the lower half of your body.

Spinal injections are single injections which take only a few minutes to work and last about two hours. A needle is inserted between the bones of your back, through ligaments and then through the dura which is the membrane that encloses the nerves and spinal cord.

Epidural injections are performed through a catheter (thin tube) introduced into your back using a needle. The needle is passed between the bones, through ligaments and into a space outside the dura. The catheter is inserted through the needle into this space and the needle is removed. An epidural is used for operations which are longer than two hours or when pain relief is needed for several days.

Brachial plexus blocks may be performed for hand, arm and shoulder surgery. The injection may be placed in the side of your neck, above or below your collar bone, or in your armpit, depending on where you are having your operation. A needle is used to inject local anaesthetic around the nerves. Initially your arm will feel warm and tingly, and within about 40 minutes it will become numb and heavy. Your arm will be in a sling until the strength has returned. Please see our leaflet, **Brachial plexus block** for more information.



Safety advice following anaesthetic

For 48 hours after your anaesthetic and surgery, it is important that you follow the safety advice below. This is because your reasoning, reflexes, judgement and coordination skills can be affected even though you may feel fine. Please rest at home for a minimum of 24 hours after your anaesthetic and do not go to work or school on the day after surgery. It is important that you follow the advice and instructions that the doctors and nurses have given you. If you are going home after having general anaesthetic we will require you to be escorted home by a relative or friend. We advise for someone to stay with you for 24 hours after having an anaesthetic.

Please note that you do not need to follow these instructions if you have had local anaesthetic without sedation.

For 48 hours after surgery do not:

- drive any vehicle, including a bicycle
- operate machinery
- cook, use sharp utensils or pour hot liquids
- drink alcohol
- smoke
- take sleeping tablets
- make any important decisions or sign any contracts.

If you have a problem at home or you are worried about your condition, please call us. We will give you information about who to contact before you go home.



Methods of giving pain relief

Tablets, capsules or liquids

These are used for all types of pain and you need to be able to eat, drink and not feel sick for these drugs to work.

Suppositories

These are placed in your back passage. They are useful if you cannot swallow or if you are likely to vomit.

Injections

These are often needed straight after surgery, especially in recovery, and may be done through your cannula into a vein or into your leg or buttock muscle using a needle.

Patient-controlled analgesia (PCA)

PCA is used to control pain after operations. The anaesthetist will place a small cannula (thin tube) into a vein in your arm or hand before your operation. The cannula is attached to a tube connected to the PCA pump. After the operation, you will be given a button to press whenever you need more pain relief. This button releases a set amount of painkiller (usually morphine) into your bloodstream.

Patients often worry that they may overdose pain relief with the PCA pump. However, the pumps are programmed to allow a set amount of morphine to be delivered, no matter how many times you press the button, so you cannot overdose. The nurses will monitor you while you are using a PCA to ensure your pain is being controlled. **Friends/relatives MUST NOT press the PCA button.**

Local-anaesthetic catheters

These are fine tubes which the surgeon or anaesthetist can place under the skin, near to your surgical wound or to the nerves that supply the area. Not all operations are suitable for having local-anaesthetic catheters. Each catheter is attached to a pump that contains local anaesthetic. The local anaesthetic blocks pain signals from nearby nerves and should reduce your pain. The pump can be kept running for several days.





Epidural infusion

An epidural is a form of pain control sometimes used after major operations. Pain-relieving medicines are given through the tube from a locked pump system and they bathe the pain nerves in your back, blocking the pain sensation from the operation site. The epidural infusion usually continues for two to five days.

Possible side effects of an epidural include:

- **Difficulty passing urine.** To avoid this, a catheter will be inserted into your bladder while you are in the operating theatre to drain your bladder.
- **Low blood pressure.** Occasionally your blood pressure may fall. You will have a drip in a vein in your arm or hand so you can receive fluid to correct this. Sometimes you may need medicine to increase your blood pressure.
- **Itching.** If you feel itchy, tell the nurses so that they can give you medicine to help with this.
- **Headaches.** Rarely the bag of fluid that surrounds the nerves and spinal cord is punctured when the epidural is being inserted. This is called a 'dural puncture' and may cause a severe headache that could last for days or weeks if it is not treated. If you do develop a headache, tell the nurses so that they can prescribe pain relief. Specific treatment may sometimes be required.
- **Weak legs.** Depending on where the epidural tube is placed, your legs may feel numb or weak while your epidural is working. This is nothing to worry about and the ward nurse will check on this. Once the infusion is reduced or stopped, this side effect will disappear.
- **'Breakthrough' pain.** This is pain that is not controlled by your regular painkillers and it can sometimes be caused by the epidural not working perfectly. To correct this, extra doses of pain relief can be given through the epidural. If this does not help, the epidural may either need to be put in again or replaced with another form of pain relief.

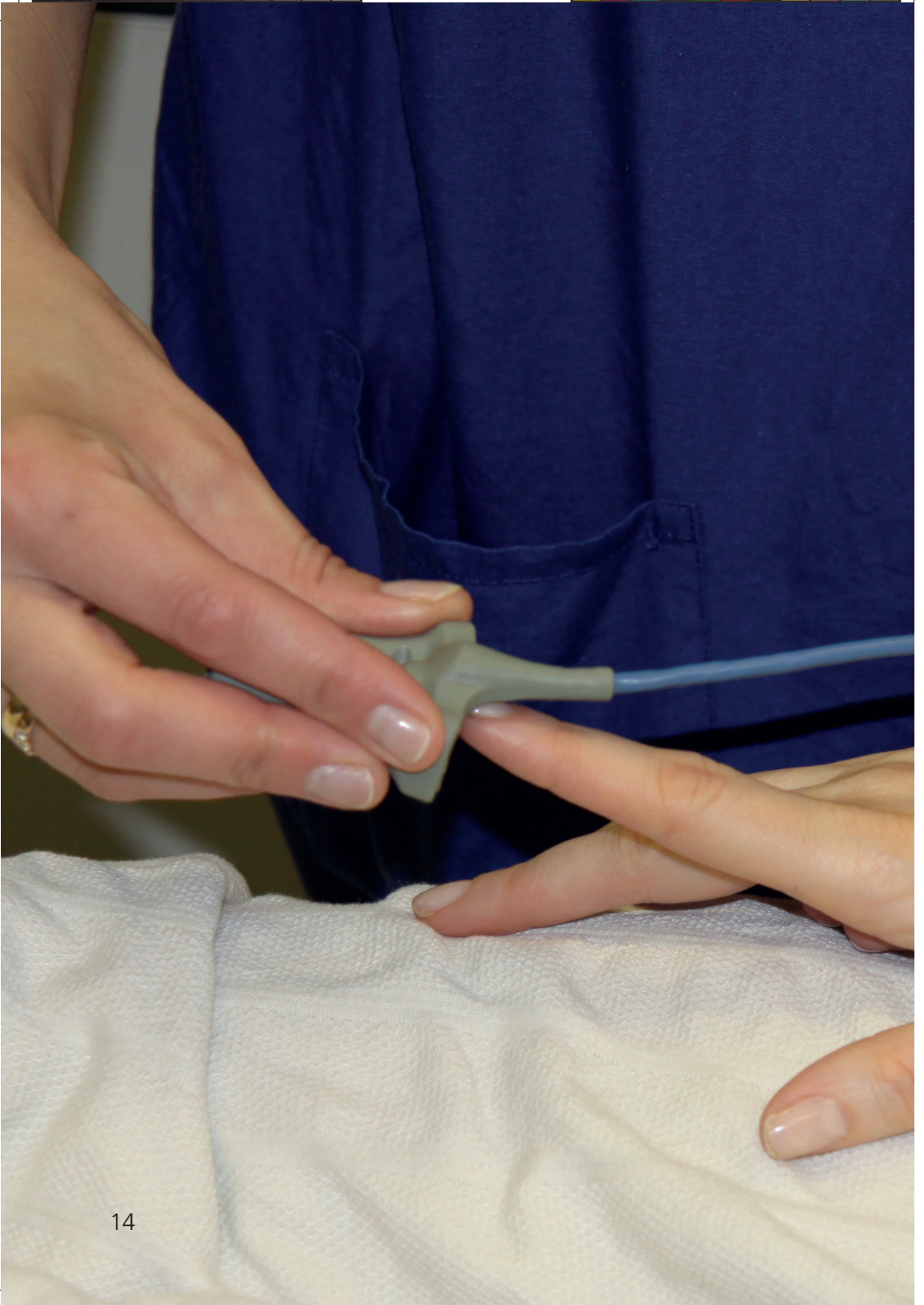




- **Nerve damage.** When an epidural is inserted you may feel brief pain, 'twinge' or tingling, either in your back or down one leg. This is quite common and will soon ease off. It is important to tell the anaesthetist if you experience any of these sensations so that the epidural can be repositioned.

Sometimes a numb patch on a leg or foot, or some weakness in a leg, may last for a few weeks or months before it wears off completely. It is very rare to have long-lasting nerve damage after an epidural resulting in muscle weakness, pain, or tingling or numbness down one leg. It occurs in one out of 5,800 to one out of 12,000 epidurals inserted.

- **Infection.** Very rarely, an infection called an epidural abscess may develop around the epidural. This may require treatment with antibiotics and/or surgery.
- **Epidural haematoma.** Very rarely, a blood clot may develop around the epidural. This is called an epidural haematoma and occurs in one out of every 55,820 epidurals inserted. If it happens, it may cause paralysis and an emergency operation may be needed to lower the risk of permanent paralysis.





Potential side effects and complications of having an anaesthetic

Modern anaesthesia is very safe and serious problems are uncommon. Your anaesthetist will use specialist equipment to monitor you closely throughout your operation. However, risk cannot be removed completely and some people may experience side effects or complications.

Side effects are secondary effects of medicines or treatment. They are often expected but are sometimes unavoidable. Examples would be having a sore throat or feeling sick after an operation. Side effects usually last only for a short time and can be treated with medicines if needed.

Complications are unexpected and unwanted events due to a treatment. An example would be damage to teeth. The exact likelihood of complications occurring depends on your medical condition, the type of surgery planned and the anaesthetic used. If there are risk factors specifically associated with your procedure and anaesthesia, these will be discussed with you before your operation or treatment. The table on the next pages shows the risk of side effects and complications occurring.



Very common to common: 1 in 10 – 1 in 100

Nausea and vomiting, headache, drowsiness, dizziness, blurred vision

These may be due to the effects of medicines used, to the surgery or to lack of fluids. They usually get better within a few hours, and medicines or fluids (or both) can be given to treat these problems.

Sore throat

You may develop a sore throat if a tube is placed in your airway or an airway device is used to help you breathe freely during the anaesthetic. These symptoms are usually mild and often settle down without treatment.

Damage to lips or tongue

Minor damage to lips or tongue is common.

Shivering

This may be due to you becoming cold during the operation, to some of the medicines you have been given or to anxiety. You will be warmed using a hot-air blanket and given oxygen until you stop shivering.

Itching

This can be a side effect of opiate medicines (such as morphine) and can be treated with other medicines.

Bruising and soreness

This can happen around injection and drip sites. It normally settles without treatment but if the area becomes uncomfortable, the position of the drip can be changed.





Aches, pains and backache

During your operation you may lie in the same position on a firm operating table for a long time. Great care is taken to position you but some people still feel uncomfortable afterwards.

Injection site pain

Some medicines may cause some pain or discomfort when they are injected.

Confusion or memory loss

This is common among older people who have had an operation under general anaesthetic and may be due to several causes. It is usually temporary but may sometimes be permanent.

Chest infection

This is more likely to happen after major abdomen or chest surgeries or to people who smoke, are overweight or elderly. This is one of the reasons why it is very important to give up smoking and lose weight before surgery.

Bladder problems

After certain types of operations and after regional anaesthesia, men may find it difficult to pass urine and women may tend to leak urine. To prevent these problems, a urinary catheter may be inserted at a suitable time.

Muscle pains

These sometimes happen if you have been given a drug called suxamethonium. This is a drug which is given mainly for emergency surgery when your stomach may not be empty.





Uncommon: 1 in 1,000

Damage to teeth, lips or tongue

Damage to your teeth is uncommon but may happen as your anaesthetist places a breathing tube in your airway. It is more likely if you have weak teeth, a small mouth or jaw, or a stiff neck.

Breathing difficulties

Some pain-relieving medicines can cause slow breathing or drowsiness after the surgery. If muscle relaxants are still having an effect, the breathing muscles may be weak. These effects can be treated with other medicines. We monitor you closely for this.

An existing medical condition getting worse

Your anaesthetist will always make sure that you are as fit as possible before your surgery. However, if you have had a heart attack or stroke, it is possible that it may happen again, just as it might even without surgery. Other conditions, such as diabetes or high blood pressure, will also need to be closely monitored and treated.

Rare or very rare: 1 in 10,000 – 1 in 100,000 patients

Damage to the eyes

Anaesthetists take great care to protect your eyes. Your eyes may be held closed with adhesive tape, which is removed before you wake up. Sometimes the surface of the eye becomes damaged from contact, pressure or exposure of the cornea. This is usually temporary and is treated with drops. Serious and permanent loss of vision can happen but it is very rare.





Serious allergy to medicines

Allergic reactions will be noticed and treated very quickly. Very rarely, these reactions lead to death even in healthy people. Your anaesthetist will want to know whether you or anyone in your family has any allergies. You may be referred to the Allergy Clinic prior your elective (planned) surgery.

Nerve damage

Nerve damage (paralysis or numbness) can be caused by a needle when performing a regional anaesthetic or can be due to pressure on a nerve during an operation. It varies with the type of anaesthetic you have but is generally rare or very rare. Most nerve damage is temporary but it can sometimes be permanent.

Brain damage and death

Brain damage and death are very rarely caused directly by anaesthesia. They occur due to a combination of; the complexity of surgery, complications and individual health. There are about five deaths for every million anaesthetics given in the UK.

Equipment failure

Equipment is tested regularly and monitors give an instant warning of any problems. There is an immediate access to backup equipment.

Awareness

Awareness is when you become conscious during some part of an operation under general anaesthetic and it happens when you are not receiving enough anaesthetic to keep you unconscious. Monitors are used during the operation to record how much anaesthetic is in your body and how your body is responding to it. These normally allow your anaesthetist to judge how much anaesthetic you need to keep you unconscious.



Further information

The majority of information in this leaflet has been obtained from *'You and your anaesthetic'* and *'Anaesthesia Explained'* by the Royal College of Anaesthetists and The Association of Anaesthetists of Great Britain and Ireland, *'Risks associated with your anaesthetic'* by The Royal College of Anaesthetists, and *'Brachial plexus block for arm, hand or shoulder surgery'* by Dr K MacLennan and Dr S Roberts from The Royal College of Anaesthetists, Directory of Quality Assured Patient Information Materials.

More information about anaesthetic is available in our leaflet, **Further information about having an anaesthetic**. Please ask staff for a copy or visit our website: www.guysandstthomas.nhs.uk

Contact us

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.
t: 020 7188 8748 9am to 5pm, Monday to Friday

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.
t: 020 7188 8801 (PALS) e: pals@gstt.nhs.uk
t: 020 7188 3514 (complaints) e: complaints2@gstt.nhs.uk

Language and accessible support services

If you need an interpreter or information about your care in a different language or format, please get in touch using the following contact details.
t: 020 7188 8815 fax: 020 7188 5953

Your comments

We are always happy to receive feedback about the care we provide. Good or bad, your comments are important to us and help us improve our service. Comment boxes and forms are available in most departments. We may ask you directly to comment on the care you have received from a particular member of staff. All doctors require patient feedback every few years as part of maintaining their licence to practise. If you are asked to provide this feedback, please be as honest and fair as you can be. Rest assured that your comments would remain confidential.

Leaflet number: 2737/VER4

Date published: February 2019 Review date: February 2022

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A list of sources is available on request