

Patient Information



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University Hospital
NHS Foundation Trust

**Surgical
Directorate**

You and Your Anaesthetic

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This leaflet gives basic information to help you understand the treatment that may be offered to you by your anaesthetist. It has been written by patients, patient representatives and Anaesthetists, working in partnership.

Please read the information in this carefully. If you have any questions regarding the anaesthetic, please discuss these on the day of surgery with your anaesthetist.

Contents

Before coming to hospital for your surgery	4
The Anaesthetist's Role	5
Premedication	6
The operating department ("Theatres").....	7
Some types of anaesthesia:	
- Local anaesthesia	7
- Sedation.....	8
- General anaesthesia	8
- Awake fiberoptic intubation	9
- Regional anaesthesia (spinal/epidural).....	10
- Peripheral nerve block	14
Pain relief after your surgery	16
Understanding Risk	17
Risks of anaesthesia (very common- very rare risks)	18
Specific risks:	
- Nausea & vomiting.....	20
- Sore throat	22
- Damage to teeth, lips and tongue.....	23
- Confusion.....	24
- Shivering.....	26
- Chest infection	27
- Accidental awareness	29
- Headache after spinal or epidural anaesthesia.....	31
- Equipment failure	33
- Damage to eyes.....	33
- Death/brain damage.....	35
- Serious allergic reaction (anaphylaxis)	35

Before coming to hospital for your surgery

What to do:

- Stop smoking: if you smoke, giving up for several weeks before the operation reduces the risk of breathing problems. The longer you give up beforehand, the better. If you cannot stop smoking completely, cutting down will help.
- Do not take alcohol or recreational drugs.
- Reduce weight: if you are very overweight, reducing your weight will reduce many of the risks of having an anaesthetic.
- Visit the dentist: if you have loose teeth or crowns, treatment from your dentist may reduce the risk of damage to your teeth.
- Visit your GP: if you have long-standing medical problems e.g. diabetes, asthma, high blood pressure, your GP should give you a check-up.
- Take your regular medications: unless otherwise advised by the pre-assessment nurse, please take your usual medications.
- Follow fasting instruction: this is important if you are having any type of anaesthetic or sedation (unless it is local anaesthesia only). If there is food or liquid in your stomach during your anaesthetic, it could come up into the back of your throat and damage your lungs.

The Anaesthetist's Role

Anaesthetists are doctors with specialist training who are responsible for giving your anaesthetic and for your safety and wellbeing throughout your surgery. Your anaesthetist will meet you before your operation and will:

- Ask about your health.
- Decide if you are still fit to have the anaesthetic and surgery.
- Discuss with you the benefits and risks of the anaesthetic, and your preferences.
- Decide with you which anaesthetic would be best for you.
- Decide for you, if you would prefer that.

The choice of anaesthesia depends on:

- Your operation.
- Your physical condition.
- Your preferences and the reasons for them.
- Your anaesthetist's recommendations for you and the reasons for them.
- The equipment, staff and other resources at your hospital.

Please consider the risks and benefits of each proposed anaesthetic technique (detailed later) to help you and your anaesthetist make the best decision for you.

Nothing will happen to you until you understand and agree with what has been planned for you. You have the right to refuse surgery/anaesthesia if you do not want the treatment suggested at any point.

Premedication

Also known as “premed”, this is the name for drugs which are sometimes given before an anaesthetic, on the ward. Some prepare your body for the anaesthetic, others help you to relax. They may make you drowsy after the operation. If you want to go home on the same day, this may be delayed. If you think a premed will help you, ask your anaesthetist.

During your anaesthetic, a needle will be used to site a small plastic tube into your vein (also known as a “cannula”). The needle is removed immediately. If having a needle worries you, you can ask to have a local anaesthetic cream put on your hand and arm to numb the skin before you leave the ward.

The operating department (“Theatres”)

Most anaesthetics are started in the anaesthetic room. You will be attached to machines which monitor you. When the anaesthetic has started you will go through to the adjacent operating theatre for your operation.

Some types of anaesthesia

The word “anaesthesia” means “loss of sensation”. Anaesthesia can be given in various ways and does not always make you unconscious.

Local anaesthesia

This involves injections which numb a small part of your body. It is usually performed by the surgeon. You may notice a warm, tingling feeling as the anaesthetic begins to take effect. If you are not having sedation you will remain alert and aware of your surroundings, but should be free of pain.

Sedation

This involves injection of sedative drugs through a cannula in your vein. The aim is to make sure you are drowsy and relaxed but able to communicate when spoken to. Therefore, you are usually conscious. Sedation can be combined with regional and local anaesthesia.

General anaesthesia

This involves making you unconscious for the surgery. It is essential for some operations e.g. bowel surgery. There are two ways of starting a general anaesthetic:

- a) Anaesthetic drugs are injected into a vein through a cannula (this is generally used for adults). You may be asked to breathe some oxygen through a clear, plastic mask beforehand.
- b) You can breathe anaesthetic gases and oxygen through a mask, which you may hold if you prefer (sometimes used for children).

As soon as the operation is finished, the drugs will be stopped so that you regain consciousness. You will then be taken to the recovery room, where staff will be with you at all times and monitor

your condition. When they are satisfied that you have recovered safely from your anaesthetic you will be taken back to the ward.

Awake fibre optic intubation

- During a general anaesthetic, a breathing tube is sometimes placed in the windpipe to support your breathing. Usually this is inserted after you are asleep. Rarely, if the anaesthetist anticipates any difficulty which makes it unsafe to insert it after you are asleep, it may be done whilst you are awake. Your anaesthetist will discuss this with you in detail if this is likely to be the case.
- To allow you to tolerate the procedure, your nose, mouth and throat will be numbed with local anaesthetic (usually by spraying or gargling). This will make you cough. Your voice may become hoarse, and you may find it difficult to swallow. You may also be given some sedation to help you feel relaxed, but you will remain conscious until the tube is correctly placed.
- Once the airway is numb, a fine camera attached to the breathing tube is inserted through your nose or mouth, into your windpipe. After the position has been confirmed you will be administered a general anaesthetic and will be unconscious

during the surgery. The breathing tube will be removed after your operation.

- Please avoid eating and drinking for a few hours afterwards, until the local anaesthetic has worn off.

Regional anaesthesia: Spinal

As an alternative to general anaesthesia, for operations below the waist, you can have a spinal anaesthetic. It is often used for joint surgery (hips, knees), prolapse repairs, caesarian section, bladder and prostate surgery. A spinal can also be used in addition to a general anaesthetic for pain relief during and after surgery (especially bowel surgery).

A local anaesthetic injection is placed in your lower back, which makes you numb from the waist downwards for about 2-3 hours. Other drugs may be injected at the same time to prolong pain relief for many hours. This means you cannot feel any pain during surgery. Depending on your medical condition and the operation you are having, this may be safer or more comfortable for you.

Specific advantages of a spinal anaesthetic compared to a general anaesthetic:

- less risk of a chest infection after surgery
- less effect on the lungs and your breathing
- excellent pain relief immediately after surgery
- earlier return to eating and drinking after surgery
- less risk of confusion after surgery
- Less need for strong pain-relieving drugs, which tend to have more side effects e.g. nausea, confusion, constipation.

The procedure is started by placement of a cannula into a vein in your hand or arm. You will then be helped into the correct position, either sat on the side of the trolley with your feet on a stool, or laid on your side with your knees curled up towards your chest. You will need to be still for the injection. The anaesthetic team will support and reassure you throughout. A spinal injection is often no more painful than having a blood test or a cannula inserted. If you feel uncomfortable or get a sharp pain travelling down your leg, tell your anaesthetist.

When the injection is finished you will be helped to lie flat. As the spinal begins to take effect (usually within 10 minutes) you may

notice pins and needles or warmth and numbness in your legs or buttock. Your legs will become weak. The anaesthetist will use some simple tests to check that the spinal is working before you have your surgery.

During your spinal anaesthetic, you can be:

- fully awake
- sedated (see “sedation”)
- fully anaesthetised (unconscious)

After the surgery you will be taken to the recovery room. You will get gradual return of sensation to the numb area in 1-4 hours, during which time you may experience tingling or pain.

You should ask for pain relief before the pain becomes too obvious, so that it doesn't become too severe afterwards. You may be unsteady on your feet when the spinal first wears off. Please ask for help from the nurse when you first get out of bed.

Please learn about the risks by reading “risks of anaesthesia” (p.18).

Regional anaesthesia: epidural

An epidural is similar to a spinal anaesthetic, in that it blocks the nerves to the lower half of the body. In contrast, however, a slightly different technique is used by the anaesthetist to insert it. It can be used in addition to a spinal anaesthetic. This is usually if the spinal is likely to wear off before the operation is finished (when the epidural can be used to continue the anaesthetic). It can also be used with a general anaesthetic to provide pain relief during and after surgery (especially for bowel surgery).

The procedure is similar to a having a spinal anaesthetic. The only difference is that a needle is used to place a thin plastic tube (catheter) into your back, through which local anaesthetic drugs and pain killer drugs can be continuously administered via a pump. As with a spinal, the needle is removed at the end of the procedure. You may feel some pressure in your back during the procedure, but usually no more than discomfort. If it is too uncomfortable for you or you get a sharp pain travelling down your leg, tell your anaesthetist. Once the catheter is in place it will be secured with a dressing and you will be laid flat. Once the epidural is running you may experience a sensation of warmth, numbness and weakness in your legs and buttock. These sensations, as well

as the pain relief, will last as long as the catheter is in and the pump is running.

When it is stopped you should get return of sensation and power to your legs within 4-8 hours. The catheter can be removed immediately after the operation or 2-3 days after the surgery.

The benefits of an epidural are the same as that for a spinal anaesthetic. To learn about the risks please read “risks of anaesthesia” (p.18).

Peripheral nerve block

This is when local anaesthetic is injected close to nerves which carry sensation from, and control muscles to a limb e.g. shoulder, hand, hip, knee. Once the nerves are blocked the affected part of the limb becomes numb and weak. This sensation may last for some hours. You may then be able to have your operation without feeling pain. Sometimes the nerve block is combined with a general anaesthetic, as a form of pain relief for during and after the surgery.

The procedure is performed either after you receive the general anaesthetic or with you awake or sedated. The skin around the injection site is cleaned and a small amount of local anaesthetic is used to numb the skin. Anaesthetists sometimes use an ultrasound machine to help identify the location of the nerves in your body and perform the block. Most people find that the injection is no more painful than having a cannula inserted into a vein.

After the operation the nerve block may still be working and you will not be able to use the affected limb. For upper limb surgery e.g. shoulder operations, you will probably be given a sling for support and to avoid injury, as you may not be aware of the position of your arm. Be careful around heat sources, such as radiators, as you may not feel heat while your limb is numb and might accidentally burn yourself. Injury is possible while you cannot feel your limb. Therefore, you may need someone to help look after you at home. You should start taking pain relieving medicines while your arm is still numb and before the block wears off. This is so that they start working ready for when the block wears off.

Please learn about the risks by reading “risks of anaesthesia” (p.18).

Pain relief after your surgery

Good pain relief is important. Occasionally, pain is a warning sign that all is not well, so you should ask for help when you feel pain.

Here are some ways of giving pain relief:

- Pills, tablets or liquids to swallow- these are used for all types of pain. They take at least half an hour to work. You need to be able to eat, drink and not feel sick for these drugs to work.
- Injections- these are often needed, and are given into a vein (for immediate effect), or into your leg or buttock muscle (which may take up to 20 minutes to work).
- Suppositories- these waxy pellets are put in your back passage (rectum). The pellet dissolves and the drug passes into your body. Commonly used for children during general anaesthesia and surgery.
- Patient-controlled analgesia (PCA) - this is a method using a machine that allows you to control your pain relief yourself. A strong pain relieving medicine (usually morphine) is put into a syringe and attached to a cannula in your vein. You control the machine via a button, which allows a small dose of the medicine to enter your vein. There are in-built safety features in the

machine which prevent you from accidentally overdosing yourself.

- Local anaesthetics, regional anaesthetics and peripheral nerve blocks- these can be very useful for relieving pain after surgery (see “some types of anaesthesia”).

All drugs have side-effects. These can include nausea/vomiting, drowsiness and constipation, which typically occur with drugs, such as Codeine and Tramadol. Please read the patient information leaflet inside the drug packet.

Understanding Risk

In modern anaesthesia, serious problems are uncommon. Risk cannot be removed completely, but modern equipment, training and drugs have made it a much safer procedure in recent years.

The risk to you as an individual will depend on:

- whether you have any other illness
- personal factors, such as smoking or being overweight
- surgery which is complicated, long or done in an emergency

People vary in how they interpret words and numbers. This table is provided to help:

Very common	Common	Uncommon	Rare	Very rare
someone in your family	someone in a street	someone in a village	someone in a small town	someone in a large town
1 in 10	1 in 100	1 in 1000	1 in 10 000	1 in 100 000
10%	1%	0.1%	0.01%	0.001%

Risks of anaesthesia

RA= this may occur with a regional anaesthetic (spinal/epidural)

GA= this may occur with a general anaesthetic

PNB= peripheral nerve block

Very common and common side effects

RA GA feeling sick and vomiting after surgery

GA sore throat

RA GA dizziness, feeling faint

RA GA	headache
RA GA	itching
RA GA	aches, pains and backache
RA GA	pain during injection of drugs
RA GA PNB	bruising and soreness
GA	transient confusion or memory loss
RA GA	shivering
GA PNB	hoarse voice (with nerve blocks for upper limb surgery)
PNB	droopy eyelid, inability to sweat on one side of face (transient for nerve blocks for upper limb surgery)

Uncommon side effects and complications

GA	chest infection
RA GA	bladder problems e.g. requiring catheterisation
GA	muscle pains
RA GA	slow breathing
GA	damage to teeth lips or tongue
RA GA	an existing medical condition becoming worse
RA	post dural puncture headache

GA accidental awareness (becoming conscious during your surgery)

Rare or very rare complications

GA damage to the eyes

RA GA serious allergy to drugs

RA GA PNB nerve damage

RA GA death

RA GA equipment failure

PNB damage to lung (nerve blocks for upper limb)

PNB fit/other life-threatening event

Some of these side effects and complications will now be discussed in a bit more detail:

Nausea & vomiting

- Very common (occurs in 1 in 3 anaesthetics overall).
- Lasts 1-2 hours, or stops after treatment. Uncommonly, can be prolonged for over a day.
- Can be distressing, delay eating and drinking and might increase your stay in hospital.

- Rarely, if severe and prolonged, it can cause serious problems e.g. damage to wound, tears to oesophagus.
- Risk factors include:
 - a) Abdominal, gynaecological, ear, nose and throat surgery, or long operations.
 - b) Drugs e.g. morphine, anaesthetic drugs, antibiotics.
 - c) Being female, child, non-smoker, having a previous history of nausea/vomiting after surgery or travel sickness.
 - d) Being starved for long periods.
 - e) Travelling shortly after a general anaesthetic e.g. in car after day case surgery.

Preventative measures include:

- Use of regional anaesthesia or peripheral nerve blocks.
- Being given anti-sickness drugs during surgery.
- Adaptation of general anaesthetic.
- Use of fluids through a cannula.
- Avoid getting out of bed too early after surgery.
- Avoid eating and drinking too early (before 20 minutes) after surgery.
- take slow, deep breaths.

- Treatment includes use of anti-sickness drugs, fluids through a cannula and treatment of underlying causes, if any.

Sore throat

- Occurs in 20-40% of patients.
- Increased risk in young females.
- Can be minor or severe.
- May be associated with dry throat, hoarse voice, pain on swallowing.
- Symptoms usually disappear within 24 hours but may take more than two days to settle.
- Usually due to a tube (artificial airway) placed in your throat when you're unconscious. This is needed to help with your breathing. Can also be due to operations on your throat or nose.
- Uncommonly there may be damage to your vocal cords or other structures in your throat.
- Can be prevented by applying local anaesthetic spray to your throat when you're unconscious and before the tube is inserted. However, this might wear off by the end of surgery.
- Can be treated with Paracetamol or by gargling soluble Aspirin, if severe.

See GP if no better after two days or if you have a persistent hoarse voice.

Damage to teeth, lips and tongue

- Tooth damage occurs in 1 in 4 500 general anaesthetics.
- Usually due to the insertion or removal of a tube (artificial airway) placed in your throat when you're unconscious. It can also be caused by the surgeon during operations on the nose and throat, or a gastroscopy (a camera test of your stomach).
- Patients at risk include:
 - a) those with loose teeth/severe dental caries/ crowns/ veneers
 - b) small mouth
 - c) reduced neck movement e.g. due to a stiff neck
 - d) prominent upper teeth
 - e) small lower jaw
 - f) rheumatoid arthritis, ankylosing spondylitis
 - g) overweight
- It can be prevented by visiting your dentist prior to surgery if you are known to have dental caries/loose teeth. Also, let

your anaesthetist know if there has been difficulty with managing your airway in the past, or if there has been tooth damage with previous general anaesthetics.

- If there is accidental dislodgment of a tooth during your anaesthetic, the anaesthetist will secure or remove it before waking you up. You will be informed after your surgery. If repair is needed it should be done by your dentist or, sometimes, by a dental surgeon in your hospital.
- Nerve damage to the tongue has been reported, but it likely to be rare- very rare. It can occur due to pressure from the artificial airway.

Confusion

There are two types of confusion

1. Delirium
2. Post-operative cognitive dysfunction (POCD)

1. Delirium is often rapid in onset (occurs within hours-days) and characterised by fluctuating confusion or behavioural or personality changes (often worse at night). It is reversible but can lead to an increase in hospital stay. It is caused by infections, pain, side-

effects of drugs, poor nutrition or sleep disturbance. Risk factors include:

- a) Elderly
- b) Dementia
- c) Excessive alcohol intake
- d) Poor mobility
- e) Depression
- f) Poor eyesight or hearing
- g) Emergency surgery

2. POCD is characterised by subtle problems with memory and concentration. It occurs weeks-months after surgery, and can be reversible over months-years. However, it may be permanent in a minority. It is a poorly understood condition and the causes are unknown. Risk factors include:

- a) Age > 60 years
- b) Infection
- c) Prolonged, major surgery
- e) Multiple operations

- Steps you can take to try and reduce the risk of developing confusion after anaesthesia are:

- be healthy (quit smoking, have a good diet, reduce or stop excessive alcohol intake).
- discuss having regional anaesthesia or peripheral nerve blocks with your anaesthetist- there is no guarantee that this will reduce confusion after surgery but it might help.
- going home as soon as possible after minor surgery.
- ensure you bring your glasses, hearing aids, medications into hospital.
- if you are confused after surgery, having family and friends around who can speak softly and use simple words can help. Also, having reminders, such as familiar faces, calendars showing the date, clocks can help too.

Shivering

- Occurs in 1 in 4 general anaesthetics.
- Not dangerous but can be distressing to patients.
- Usually stops after 20- 30 minutes.
- Caused by a low temperature during general or regional anaesthesia. Can also be due to drugs.
- Patients at risk are those who are young, have had prolonged surgery or orthopaedic surgery.

- Preventative measures include keeping yourself warm before surgery with clothes, and telling staff if you feel cold. During surgery you will have warming blankets or fluids to try and keep your temperature within range.
- If your temperature is still low after your surgery you will be given warming blankets in the recovery room. Drugs can be used to stop shivering, but generally these aren't needed, as they have side-effects.

Chest infection

- Occurs in 1 in 5 patients undergoing major abdominal surgery.
- Caused by bacteria or viruses. General anaesthesia or pain from the surgery can cause a chest infection. Pain can impair your ability to take deep breaths and cough. This can lead to a build-up of phlegm in your lungs, which can get infected.

Symptoms of a chest infection include:

- feeling unwell, feverish
- coughing up dirty phlegm
- shortness of breath
- chest pain
- confusion

- Risk factors include:
 - a) age >50 years
 - b) abdominal surgery
 - c) long term medical conditions
 - d) smoker
 - e) overweight
 - f) weak immune system
 - g) being immobile after surgery

- A chest infection can be serious and can lead to delayed discharge home. Things you can do to prevent a chest infection are
 - Have a flu jab well ahead of your surgery.
 - Quit smoking. Ideally two months beforehand, but even quitting a few days-weeks prior to surgery can help.
 - Consider using regional anaesthesia or peripheral nerve blocks.
 - Do deep-breathing exercises and cough after surgery (physiotherapists can help teach you how to do this).

- Once a chest infection develops, treatment includes oxygen, fluids through a drip, antibiotics and pain killers, if required.

Accidental awareness

- This is described as becoming conscious when the anaesthetist intended for you to be unconscious.
- It occurs in 1 in 20 000 general anaesthetics. 2/3 of cases occur just before or just after surgery.
- Most patients who experience awareness do not have pain but may have memories of events in Theatre.
- Some patients recall events during the recovery from anaesthesia, such as removal of the breathing tube from their mouth, but this is not the same as awareness.
- Dreaming is very common during general anaesthesia (6%), but is not the same as awareness.
- The anaesthetist is with you whilst you're having your surgery, to ensure that you're safe and receiving sufficient anaesthesia. If the equipment delivering anaesthetic to your body is faulty, accidental awareness can happen. Drugs which paralyse your muscles (muscle relaxants) are sometimes needed for the anaesthetic or surgery, and these are associated with awareness.

- The symptoms of awareness are the inability to move but ability to hear and feel. One half of patients find this distressing. 40% of patient with awareness go on to develop long term psychological problems, such as post-traumatic stress disorder.
- If you experience awareness you should talk to your anaesthetist whilst you're in hospital, or ask to be referred to him/her via your GP. A psychologist or psychiatrist might also be helpful.
- Prevention against accidental awareness includes use of regional anaesthesia or nerve blocks instead of general anaesthesia, regular and frequent equipment checks and use of monitoring in theatre.
- Risk factors for awareness are:
 - a) age 25- 45 years
 - b) female
 - c) obesity
 - d) obstetric surgery (especially caesarian section under general anaesthesia)
 - e) use of muscle relaxants
 - f) emergency surgery

Headache after spinal or epidural anaesthesia

- Also known as “post dural puncture headache” this is an unusual type of headache which occurs after spinal or epidural anaesthesia.
- It occurs in 1 in 100 patients who have an epidural injection, and 1 in 500 who have a spinal injection.
- The headache is usually at the front or back of the head. It is worse when sitting or standing, and improves on lying flat. There may also be neck pain or a dislike of bright lights. It commonly starts between one day and one week after the anaesthetic.
- Young patients and pregnant women are most at risk.
- The headache is caused by some leakage of fluid called “CSF” (which surrounds the brain and spinal cord) through the hole made by the needle in the membrane which lines the brain (the dura).
- Initial treatment includes lying flat as much as possible, and painkillers (such as Paracetamol and Ibuprofen, if tolerated). Drinking fluids also helps, especially caffeine drinks. You should avoid heavy lifting and straining.

- Subsequent treatment involves sealing the hole in the dura using an epidural blood patch. This involves repeating the epidural injection and injecting blood taken from your arm, through the epidural needle. This then forms a clot over the hole, and the fluid stops leaking. The headache resolves within 24 hours. It is successful in 60-70% of patients. Although the hole usually seals itself within weeks, it is not advisable to wait this long.
- The risks of an epidural blood patch are the same as those of an epidural.
- It is important that you inform an anaesthetist if you develop this type of headache, or if you have had an epidural blood patch and develop severe back pain, difficulty passing urine or numbness or weakness in your back or legs. If the headache is associated with drowsiness, confusion or vomiting, this is a medical emergency and you should seek medical help immediately.

Equipment failure

- This is uncommon and occurs in 0.015% of anaesthetics, resulting in moderate-severe harm.

- Consequences of equipment failure are prevented by close monitoring and checking of equipment by the anaesthetist and technician. If there is a problem during anaesthesia, the cause can be identified and either corrected or the equipment changed.
- in-built equipment design features are there to prevent accidents.

Damage to eyes

- This is uncommon- rare in non-eye surgery. 1 in 28 000 patients develop symptoms from corneal abrasions. Blindness is very rare (1 in 66 000- 1 in 125 000 anaesthetics overall). A droopy eyelid or swelling of the eyelids can happen if you're positioned with your head down during surgery. These effects are temporary.
- The commonest injury is from corneal abrasion. This is a tear or graze of the outer layer of the eye. It causes pain and blurred vision. The majority heal without treatment and without any long term effects on vision over days.
- Corneal abrasions occur because the eyes don't close fully during general anaesthesia, which leads to drying of the

cornea and causes it to stick to the eyelid. When the eye is opened an abrasion results.

Risk factors for eye injury include:

- a) head and neck surgery
- b) long surgery
- c) if you're laid on your front during surgery
- d) low blood pressure, pressure on the eyeball or blood clots in the eyes can cause blindness

Anesthetists usually tape your eyes down during surgery to reduce the risk of corneal abrasions. On removal this can sometimes cause bruising of the eye. Ointments or eye drops can also be used, but these can cause blurring of your vision or irritation of the eye afterwards. If your surgery requires you to be laid on your front, the anaesthetist should check your eyes to make sure there's no pressure being exerted on them.

Treatment for corneal abrasions includes eye drops, ointments and an eye patch, but take advice from an eye specialist if you develop symptoms.

Death/brain damage

- Most deaths around surgery are not directly due to the anaesthetic, but can be due to poor health, old age, emergency or major surgery.
- Anaesthetic causes include life-threatening allergic reactions (occur in less than 1 in 10 000) and anaesthetic errors (1 in 185 000 patients).
- The overall risk of death from anaesthesia is:
 - 1 in 100 000 for healthy patients undergoing non-emergency surgery
 - 17 in 100 000 for women undergoing caesarian section
 - 1 in 40 000- 100 000 for children undergoing anaesthesia
- severe brain injury (i.e. permanent inability to think, feel or move normally) is very rare. It is caused by inadequate oxygen going to the brain during surgery.

Serious allergic reaction (anaphylaxis)

- Anaphylaxis is a severe, life-threatening allergic reaction.
- It occurs in 1 in 10 000- 20 000 anaesthetics.
- Symptoms include feeling wheezy, breathless and swelling of the throat.

- It is caused by drugs (normally antibiotics, muscle relaxants, Chlorhexidine and latex).
- All anaesthetists are trained in the management of anaphylaxis, and many patients fully recover. The surgery may have to be postponed and you may get admitted to the critical care unit. You will have further blood tests to confirm the diagnosis of anaphylaxis.
- To prevent anaphylaxis, you must tell hospital staff which medicines or substances you are allergic to. You may also wear a hazard warning bracelet.
- If you develop anaphylaxis to an unknown substance or doctors suspect that you have a severe latex allergy, you will undergo skin or blood tests to identify the substance that you're allergic to. This will be after you have fully recovered. They are performed in a special allergy clinic.

We ask information about you so that you can receive proper care and treatment. This information remains confidential and is stored securely by the Trust in accordance with the provisions of the Data Protection Act 1998.

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