NHS
West Suffolk
NHS Foundation Trust

Patient information

Adult elective surgery information pack

Pre-Admission Unit: 01284 712810

West Suffolk NHS Foundation Trust
Hardwick Lane, Bury St Edmunds, Suffolk IP33 2QZ

Tel: 01284 713000

Website: www.wsh.nhs.uk

Putting you first

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General information to prepare you for surgery

Please read the following instructions carefully before your operation.

Failure to follow this advice could lead to the cancellation of your operation.

Your operation will either take place in the main hospital or the Day Surgery Unit.

Nil by mouth instructions and surgery location will be sent to you by the admissions office when you are allocated a date for surgery. If you have any concerns about any of the instructions on your letter please phone the Pre-Admission Unit team Monday to Friday between the hours of 8.30am to 5.30pm on (01284) 712810.

Further information can be found on the Pre-Admission Unit link on the West Suffolk Hospital web page.

It is your responsibility to ensure that you follow any instructions which were given to you in the Pre-Admission Unit about any medication changes prior to your operation.

Before your operation

- Do not smoke or use recreational drugs for 12 hours prior to your operation.
- Do not drink alcohol for 24 hours prior to your operation.
- Please bath or shower on the morning of your operation.
- Arrange for a responsible adult to drive and accompany you home.
- You cannot drive yourself or use public transport after a general anaesthetic. You may use a taxi but only if an escort travels with you.
- If you are having day surgery please arrange for a responsible adult to stay with you overnight after your operation.

Please help us to help you

- Do not wear any nail varnish on your fingers or toes or any makeup.
- Do not bring any unnecessary money in with you.
- Do not wear any jewellery except a wedding ring. Body piercings should be removed.
- Please wear glasses rather than contact lenses.
- Please wear comfortable, supportive footwear.
- Do not use chewing gum.

Remember to bring the following with you

- Any drugs or medicines in their original containers NOT a Dossett box.
- Any medical devices eg inhalers or CPAP machines you are using.
- Dressing gown and slippers.
- Something to read. Small change for newspapers etc.
- The telephone number of the person responsible for taking you home.

Enquiries and car parking

- **Main hospital:** Visiting times vary according to ward. Please phone the main hospital on **(01284) 713000** and ask to be put through to the appropriate ward. Remember to bring change for car parking. Car park A at the front of the hospital is the designated patient/visitor parking area.
- **Day Surgery Unit:** In view of the short time that you will be in the Day Surgery Unit, visitors/partners are not permitted to stay with you. Enquiries can be made at the reception desk or by phoning **(01284) 713958**.

There is a 20 minute drop off bay outside Day Surgery. There are also some spaces for disabled parking.

Information for the first 24 - 48 hours after your anaesthetic

- Rest for this period.
- Do not drive a car, motorbike or ride a bicycle.
- Do not use power tools or household appliances, which may cause harm or injury.
- Do not make any vital decisions or sign legal documents.
- Do not stand up quickly as it is not uncommon to become light headed after an anaesthetic.
- Do not smoke, drink alcohol or take recreational drugs.
- Do not take sleeping tablets.
- Please follow any special instructions which the surgeon or anaesthetist have given you.

Diet advice

- You may feel sick or vomit after a general anaesthetic. This is not uncommon. If it does occur, remain quiet, lie down and sip plain water until it passes.
- Otherwise eat and drink normally - unless instructed differently.

What will happen on the day?

- When you arrive on the ward / Day Surgery Unit you will be booked in at their reception area.
- The Nursing staff will help prepare you for your operation.
- You will meet the surgeon and anaesthetist prior to having your operation.
- You will be asked to sign a consent form.

You will find that you are asked the same questions more than once; this is all part of the careful checking system.

- The hospital has several theatres. People are collected from the ward dependant on the type of operation they are having and which theatre list they are allocated to.

- Please be advised you will have to wait until it is your turn for theatre.

Keeping in touch with a loved one whilst in hospital

The ‘Keeping in Touch’ team can help you with contacting your loved ones whilst you are in our care.

You can book a 15-minute slot for a video call seven days a week, giving you the opportunity to talk to your friend or relative face-to-face using either FaceTime or Zoom.

To use this service call **01284 713155** or email keepingintouch@wsh.nhs.uk

Further information about your operation can be found on the West Suffolk Hospital website www.wsh.nhs.uk and click on “patient leaflets”.

Surgical pre-admission MRSA screening

What is MRSA?

MRSA (Meticillin Resistant *staphylococcus aureus*) is a type of bacteria, which can be found on the skin and in the nose of healthy people causing them no harm whatsoever.

When someone who is carrying MRSA has an operation or invasive procedure there is an increased risk of transferring the bacteria elsewhere in the body and causing an infection which can have serious consequences.

Identifying if you are carrying MRSA and providing treatment to get rid of the bacteria will reduce the risk of this occurring therefore a swab will be taken from your nose and groin areas at preadmission clinic.

It is also important to know if someone is carrying MRSA so that in the hospital, steps can be taken to prevent it being spread to other patients.

Patients who have wounds or are recovering from illnesses are more vulnerable to developing an infection.

If your swab result is positive a nurse from the Pre-admission Unit will contact you.

You will be asked to attend the Pre-admission Unit to collect a prescription for treatment to commence prior to your surgery.

What is the treatment for MRSA?

Treatment for MRSA is a 5-day course of anti-septic washes, nasal ointment and dusting powder.

- Patients who are coming into the hospital for a surgical procedure will be required to complete a 5-day course of treatment and attend the Pre-admission Unit for post MRSA screening swabs on days 7, 9 and 11 after the treatment.

- Patients attending the Day Surgery Unit will be required to complete their 5-day course of treatment 5 days prior to their procedure date, day 5 being the last day.

- Patients attending for an orthopaedic procedure at the Day Surgery Unit will be required to complete a 5-day course of treatment and attend the Pre-admission Unit for post MRSA screening swabs on days 7, 9 and 11 after the treatment.

The Pre-admission Unit nurse will advise you when to start the treatment and if you require post MRSA screening swabs.

There maybe a few patients who on completion of their treatment will need a further course.

Will my operation / procedure be delayed?

The Pre-admission Unit nurse will inform you if your procedure needs to be delayed to allow sufficient time to complete your treatment.

Some patients will be prescribed an antibiotic at the time of the operation to reduce the risk of infection.

Are my family and friends at risk?

No. Healthy people are not at risk from MRSA. We do however encourage that all visitors wash their hands both before and after visiting.

When do I start my treatment?

You may find it helpful to write down the date your treatment started, and any follow up swab dates in the table below:

Date to commence 1st treatment	
Date 1st swab	
Date 2nd swab	
Date 3rd swab	

Date to commence 2nd treatment	
Date 1st swab	
Date 2nd swab	
Date 3rd swab	

The doctors and nurses looking after you can give you any further information that you require or will contact the Infection Prevention Team if requested.

Having a general anaesthetic

This leaflet explains what you can expect when you are having a general anaesthetic for a planned operation.

Types of anaesthetics

A general anaesthetic is a state of controlled unconsciousness, so you are asleep, pain free and unaware of the surroundings for the duration of the surgery.

For surgery on the lower body it is possible to have a spinal anaesthetic with or without sedation instead of a general anaesthetic.

For arm surgery, a nerve block (plexus block) with or without sedation may be an option instead of a general anaesthetic.

For procedures on the body, a nerve block might be used (paravertebral block) in addition to a general anaesthetic.

Local anaesthetic infiltration of the wound is often used to reduce wound pain. It may numb the area for 6 - 8 hours after the operation.

You may receive a general anaesthetic only or a combination of the above, depending on your type of surgery.

How you can contribute to a quick recovery is important

- If you smoke, stop before the operation. This helps with wound healing and reduces the risk of chest infections after the operation.
- If you are overweight, try and lose weight before surgery to improve wound healing and reduce the risk of chest infections.
- If you have health problems such as diabetes, high blood pressure, heart disease, lung disease or kidney disease, it is sensible to try and improve the control of your condition with the help of your GP. This will reduce the risk of complications around the time of surgery such as poor wound healing, chest infections, strokes, heart attacks and poor kidney function after the operation.
- If you have any dental infections or loose teeth, see your dentist before surgery. Poor dental health increases the risk of damage to your teeth and might be a source of infection.

- Please bring both a list of all your medication and the medication itself for both the pre-assessment visit and the admission for surgery, in order to be able to continue your usual medication throughout the period.
- If you use any herbal remedies, stop them 7 days before surgery. They can interact with the anaesthetic drugs and painkillers so that you are slow to wake up or they may make you bleed more.
- If you get any flare ups in chronic conditions like asthma the week before surgery please call the Pre-admission Unit for advice: **telephone 01284 712810.**

On the day of surgery

- If you get any flare ups in chronic conditions like asthma the week before surgery please call the Pre-admission Unit for advice: **telephone 01284 712810**.
- If you feel unwell on day of surgery please call the ward for advice.
- Stop eating 6 hours before surgery. This includes all dairy products (including milk), chewing gum and sucking sweets.
- Drink water only until 2 hours before surgery.
- The last 2 hours before surgery you are allowed sips of water.
- There are strict rules about eating and drinking before an anaesthetic for your safety, because when you are anaesthetised, stomach contents can be regurgitated into your lungs and cause a very serious chest infection.
- Take your usual tablets with a glass of water and continue using inhalers as normal.
- Only omit medication that you have specifically been asked to stop by the Pre-admission Unit.
- Your anaesthetist may choose to give you a pre-med to make you relax however pre-meds are generally used less often now, as they tend to last longer than the anaesthetic itself.
- You will meet your anaesthetist before the operation and they will take you through your anaesthetic plan. Do not hesitate to ask questions about your anaesthetic.
- You will need to sign a consent form after been given surgical information about the procedure. This includes the possibility of receiving blood transfusions in connection with your surgery. For procedures with significant blood loss there is the possibility to use a cell saver to give you back your own red blood cells. Blood is sucked from the wound, washed with saline and re-infused via your drip.

- You will also be asked to decide if you want to be resuscitated in the event of a cardiac arrest.

Before going to theatre

- You will need to change into a hospital gown, the ward nurse will help you.
- You need to put elasticated stockings on your legs to help prevent blood clots.
- Jewellery needs to be removed and locked away with other valuables; this also includes any tongue studs.
- Please remove any nail varnish and other make-up before going to theatre to help with observing your normal skin colour during surgery.
- Please keep your glasses, hearing aids and dentures in. We will remove them in the anaesthetic room if required and return them when you are in the recovery unit.
- You will be taken to theatre on a bed or trolley by a porter after the ward staff have checked your identity and site and side of the operation. This information will be rechecked in the anaesthetic room before you are anaesthetised.

The general anaesthetic

The anaesthetic can be started either via a cannula in the back of a hand or by breathing anaesthetic gases via a facemask over your nose and mouth. This will be maintained either by anaesthetic gases via the lungs or drugs via a drip until surgery is finished.

When the anaesthetic is stopped at the end of the surgery you will regain consciousness.

You should expect to be completely unaware of anything in the anaesthetic room or theatre once you have gone to sleep until you wake up at the end of the procedure.

You will wake up either in theatre or in the recovery room depending on the type of surgery.

Recovery

After surgery you will be observed in recovery for a period of time to check that your heart rate, blood pressure and breathing are satisfactory.

You will receive oxygen until you are properly awake.

Any sickness and queasiness will be treated.

Any pain and discomfort will be managed.

Any blood loss will be treated.

When all observations are stable and your general condition is satisfactory you will go back to your ward.

If you have undergone major surgery you may need to stay overnight in recovery or go to the high dependency ward for a day or two before going back to the ward.

Your recovery will be quicker if you eat, drink and get out of bed and back on your feet as soon as possible.

Complications / side effects

Common side effects (1 in 10 patients)

- Queasiness and sickness after surgery: we give medication for this, however you may still experience it
- Sore throat: this will likely disappear in 1 - 2 days
- Blurred vision and dizziness due to the anaesthetic drugs: this should disappear in 24 – 48 hours
- Headache: this may be due to a lack of food and water before surgery
- Itching: this may be due to the strong pain killers you require
- Confusion: this can especially be seen in older patients and may last 1 – 2 days. This can be upsetting for both yourself and your relatives.
- Backache or other aches and pains: these are often due to positioning on the theatre table

Uncommon complications (1:1000 or less patients)

- Awareness: recall of conversation or events from theatre after you were sent off to sleep and before you were woken up at the end of surgery. You should report it to the ward staff so they can notify the anaesthetic department as we will need to discuss it with you.

Post-operative chest infections, especially if you already have chest problems

- Trouble emptying your bladder, seen in older patients and/or if you have bladder problems already
- Muscle pains after a specific muscle relaxant is used if you have a hiatus hernia or heart burn
- Damage to your teeth: caps and crowns are more vulnerable than natural teeth
- Soft tissue damage to lips and tongue can occur due to airway handling
- Flare up of any pre-existing medical illness; this might prolong your stay

Rare complications (1:100,000 or less patients)

- Permanent damage to eyes
- Serious allergic reactions to any of the drugs given
- Permanent nerve or brain damage
- Death

It must be stressed that anaesthesia generally is very safe today, however, there is always a risk when undergoing anaesthesia and surgical procedures.

Brain damage and death during an anaesthetic are rare events today and mostly occur in very sick patients and during emergency surgery.

More information can be found on: www.rcoa.ac.uk under “Anaesthesia explained.”

Risks associated with your anaesthetic

Serious allergy during an anaesthetic (anaphylaxis)

This leaflet explains what anaphylaxis is and why a rare allergic reaction might occur during your operation. Before, during and after your operation you will receive different medicines through drips, by mouth or other routes. It is possible to have a serious reaction to one of these, or to a combination of several different drugs and chemicals. This leaflet gives information about these reactions and how these can be treated. It also describes what testing you can have afterwards to find the cause.

What is anaphylaxis?

Anaphylaxis is a severe allergic reaction that occurs very rapidly, with massive release of chemical substances by the body. During the reaction these chemicals can result in breathing difficulty, wheezing, low blood pressure, swelling, and skin problems including urticaria (hives) and red rashes. Severe anaphylaxis is life threatening but, when this is recognised and treated quickly, death is very rare.

What can cause anaphylaxis during an anaesthetic?

Anaphylaxis is often caused by an allergy to a specific drug; this is called allergic anaphylaxis. The two most common causes of allergic anaphylaxis during anaesthesia are:

- drugs used to prevent movement during surgery (called muscle relaxants or neuromuscular blocking agents). These drugs are only given to patients who are already anaesthetised.

- antibiotics – these are often needed during surgery to prevent infections.

Latex used to be a common cause of anaphylaxis during surgery. This is less so now as few latex containing products are used in hospitals.

Anaphylaxis can also be caused by a combination of drugs or substances working together to cause a reaction. During a general anaesthetic this includes anaesthetic drugs, stress on the body from surgery itself and infections. Anaphylaxis is more common in women, although it is not understood why.

If you have a serious anaphylactic reaction, in order to understand the cause, specialist testing is performed a few weeks after a reaction. Skin testing means putting a tiny drop of the drug on your skin and pricking the skin lightly with a small

piece of plastic shaped like a toothpick. This is not painful and it is left for a few minutes to see if you develop an itchy lump on the skin. If this happens it means that you are allergic to that drug. Sometimes you might need to have an additional test where the injection goes a little bit deeper, and this will sting for a short time. Skin testing has to be carried out by someone who has been trained in diagnosing allergy.

If the cause of anaphylaxis is found to be an allergy to a specific drug, it is vital that you avoid this drug in the future to prevent further severe reactions.

How is anaphylaxis treated?

- Adrenaline is the best drug treatment and is given as injections.
- You will usually be given oxygen and have an intravenous drip.
- Antihistamines, steroids and asthma treatments might be prescribed if you need them.

Usually the symptoms will settle down quite quickly, but it is important to keep a close watch so you might need to stay in hospital overnight. Very serious reactions will require treatment in a Critical Care Unit (CCU). If the operation has not already started, surgery may be postponed unless it is very urgent.

All anaesthetists are trained to treat anaphylaxis and adrenaline (the drug used to treat severe allergic reactions) is immediately available in every operating theatre.

Your anaesthetist will take blood tests at the time of the reaction and then refer you for specialist investigation. In the UK every serious reaction is also reported to the Medicines and Healthcare products Regulatory Agency (MHRA) (http://bit.ly/2kQARLe); your anaesthetist will do this.

How frequently do anaesthetics cause anaphylaxis?

Estimates of life-threatening anaphylaxis around the world varies from 1 in 2,500 to 1 in 20,000 anaesthetics. (1, 2)

Most people make a full recovery from anaphylaxis. We do not know how many anaphylactic reactions during anaesthesia have led to death or permanent disability.

Is allergy to anaesthetics hereditary?

No. If you are allergic to an anaesthetic drug, your children are no more likely to have the same allergy than any other person.

Some very rare non-allergic problems with anaesthetic drugs can occur in families, for example ‘suxamethonium apnoea’ where some muscle relaxant drugs can last longer than usual, and ‘malignant hyperthermia’ where the body can become very hot. These are NOT allergies.

Is there anything I can do to help avoid serious allergy?

You may already know that you are allergic to certain medicines or substances. When you come into hospital, you will be asked several times if you are allergic to anything. It is very important that you tell the nurse and anaesthetist looking after you if you have an allergy. If so, this will be recorded so that everyone can check what you are allergic to before you are given medicines or have an operation. If your allergy is serious, you may be advised to wear a ‘Hazard Warning’ bracelet after you leave hospital.

Can I be tested for anaphylaxis before I have my anaesthetic?

Routine skin testing prior to surgery to see if you are allergic to anaesthetic drugs is not useful. It is only recommended for those people who have had a serious allergic reaction during an anaesthetic in the past (3). The reason for this is that skin testing is not completely reliable. A negative test doesn’t guarantee that you can safely have the drug, and a positive test does not mean you would definitely have a reaction if you took the drug in the future. The health professionals can only make sense of a skin test after a reaction has already happened, as a guide to which drug may have caused the reaction.

If you have any symptoms of latex allergy, for example itching or a rash after exposure to latex rubber in children’s balloons, rubber gloves or condoms, then you should be tested for a latex allergy before your surgical operation. There are two types of test: a skin test and a blood test. Which of the tests you have will depend on how your local clinic chooses to do the testing. If you believe you may be allergic to latex you should tell your GP well in advance of going into hospital for surgery.

If I am allergic to an anaesthetic drug, are alternative drugs available?

Yes, there are many different anaesthetic drugs and alternative drugs can almost always be given. If you are allergic to an antibiotic or a skin antiseptic, you will be given a suitable alternative.

What should I do if I think I have had an allergic reaction during an operation in the past?

If you think you might have had an allergic reaction during or after previous surgery, it is important to try to find out what happened and what might have caused it. It may be possible for your GP to find out what the cause of the problem was from your hospital consultant. Your GP may then refer you to an allergy clinic to help to find the cause.

Where can I get more information about anaphylaxis?

- Your GP or your anaesthetist
- 'Suspected anaphylactic reactions associated with anaesthesia', published by the Association of Anaesthetists of Great Britain and Ireland and the British Society of Allergy and Clinical Immunology.(4)
- Allergy UK (www.allergyuk.org).

Further information

Anaesthetists are doctors with specialist training who:

- discuss the type or types of anaesthetic that are suitable for your operation. If there are choices available, your anaesthetist will help you choose what is best for you
- discuss the risks of anaesthesia with you
- agree a plan with you for your anaesthetic and pain control
- are responsible for giving your anaesthetic and for your wellbeing and safety throughout your surgery
- manage any blood transfusions you may need
- plan your care, if needed, in the intensive care unit
- make your experience as calm and pain free as possible.

Common terms

General anaesthesia: This is a state of controlled unconsciousness during which you feel nothing and may be described as ‘anaesthetised’.

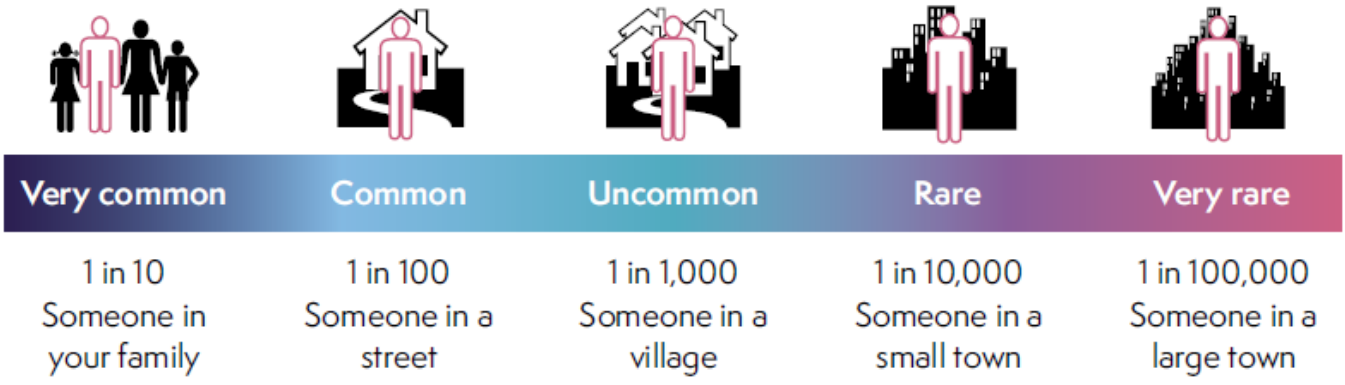
Regional anaesthesia: This involves an injection of local anaesthetic which makes part of your body numb. You stay conscious or maybe sedated, but free from pain in that part of your body. You can find out more about general and regional anaesthesia in the patient information booklet ‘Anaesthesia Explained’, which is available from the RCoA website via: www.rcoa.ac.uk/document-store/anaesthesia-explained

Risks and probability

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

The way you feel about a risk is very personal to you, and depends on your personality, your own experiences and often your family and cultural background. You may be a ‘risk taker’, a ‘risk avoider’, or somewhere in between. You may know someone who has had a risk happen to them, even though that is very unusual. Or you may have read in the newspapers about a risk and be especially worried about it.

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



Your anaesthetist will give you more information about any of the risks and the precautions taken to avoid them. You can find more information leaflets on the College website www.rcoa.ac.uk/patientinfo.

Common events and risks in anaesthesia

This summary card shows the common events and risks that healthy adult patients of normal weight face when having a general anaesthetic for routine surgery (specialist surgeries may carry different risks).

Modern anaesthetics are very safe. There are some common side effects from the anaesthetic drugs or equipment used which are usually not serious or long lasting. Risk will vary between individuals and will depend on the procedure and anaesthetic technique used. Your anaesthetist will discuss with you the risks that they believe to be more significant for you.

There are other less common risks that your anaesthetist will not normally discuss routinely unless they believe you are at higher risk. These have not been shown on this card.

VERY COMMON – MORE THAN 1 IN 10
Equivalent to someone in your family

- Sickness
- Shivering
- Thirst*
- Sore throat
- Bruising
- Temporary memory loss (mainly in over 60s)

COMMON – BETWEEN 1 IN 10 AND 1 IN 100
Equivalent to someone in a street

- Pain at the injection site*
- Minor lip or tongue injury

UNCOMMON – BETWEEN 1 IN 100 AND 1 IN 1,000
Equivalent to someone in a village

- Minor nerve injury

RARE – BETWEEN 1 IN 1,000 AND 1 IN 10,000
Equivalent to someone in a small town

- **1 in 1,000** Peripheral nerve damage that is permanent
- **1 in 2,800** Corneal abrasion (scratch on eye)
- **1 in 4,500** Damage to teeth requiring treatment
- **1 in 10,000** Anaphylaxis (severe allergic reaction to a drug)

VERY RARE – 1 IN 10,000 TO 1 IN 100,000 OR MORE
Equivalent to someone in a large town

The risks we all take in normal life, **such as road travel**, are actually far higher than the risks below.

- **1 in 20,000** Awareness during an anaesthetic
- **1 in 100,000** Loss of vision
- **1 in 100,000** Death as a direct result of anaesthesia

More information on these risks and on how to prepare for surgery can be found here bit.ly/RCoA-Risk

*The first Sprint National Anaesthesia Project (SNAP-1) Study. *Br J Anaesth* 2016 (bit.ly/SNAP1-2014).

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Deep vein thrombosis (DVT) and pulmonary embolism (PE) advice for surgical patients

What is a deep vein thrombosis (DVT)?

A DVT is a blood clot that forms within a vein deep in the leg but can occur elsewhere. This blocks the normal flow of blood through the leg veins either partially or completely and so causes leg swelling and tenderness. If a clot breaks off it travels to the lung and causes a pulmonary embolus (PE) which can be serious and occasionally fatal.

What is a pulmonary embolism (PE)?

A pulmonary embolism is caused by a blood clot from the leg passing up the vein to the lung and blocking a blood vessel in the lung. This can have serious and acute effects. It can occur without any symptoms or signs of a DVT.

Why does a blood clot form in leg veins?

Three factors may trigger a clot to form in a vein:

1. A reduced blood flow allows the blood to clot in the vein (e.g. immobility, surgery or long-distance travel over 3 hours)

2. Changes to the clotting mechanism which may be inherited, caused by some drugs or conditions such as pregnancy.

3. Damage to the lining of the vein allows the blood to clot (e.g. trauma, surgery or inflammation)

Is DVT a serious condition?

A DVT in itself is not a serious condition if the clot remains stuck to the vein wall however it can give you two problems:

1. **Pulmonary embolism:** The blood clot can dislodge from the vein wall and travel to the lung causing a pulmonary embolism (PE). This can be a serious problem depending on the size of the clot. It can present with shortness of breath, rapid heartbeat, chest pain and if severe, coughing up blood or collapse. PE is not common but can be life threatening and requires urgent medical attention.

2. **Post-thrombotic syndrome:** DVT can cause inflammation and permanent obstruction in the deep vein system of the leg. This complication can produce pain, swelling, discolouration and ulceration in the lower leg. This is called post-thrombotic syndrome which is a long-term problem.

Who is most at risk?

There are several factors which increase your chance of developing a DVT/PE. And these include:

- Previous DVT or pulmonary embolism (PE)
- Major surgery, particularly orthopaedic operations such as joint replacement
- Major trauma / lower limb injury
- Paralysis or immobility of lower limbs including prolonged bed rest
- Family history of DVT or PE
- Faulty blood clotting which is usually an inherited tendency to blood clots, i.e. thrombophilia
- Active cancer and cancer chemotherapy
- Recent medical illness (eg heart or lung disease, kidney disease / failure, recent heart attack, inflammation such as inflammatory bowel disease
- Smoking
- Obesity e.g. Body Mass Index (BMI) over 30
- Pregnancy and recent delivery
- Age over 60 years
- The contraceptive pill or HRT which contain oestrogen or a 3rd generation progesterone

The overall risk of a thrombosis being present after surgery ranges from 10% – 40%, depending on the type of surgery with orthopaedic surgery carrying the highest risk. However, only 1% of orthopaedic cases and 0.5% of general surgical cases, present with a full-blown thrombosis as small undetected clots dissolve on their own.

Is travelling a risk?

If you travel for more than three hours at one time in the four-week period before or after surgery, your risk for DVT is higher because of the immobility of your legs.

After major joint replacement surgery, the risk is present for up to 90 days and particularly for long haul flights over 4 hours.

How will DVT / PE be prevented when I am in hospital?

Not all DVTs can be prevented but the risks can be significantly reduced. You will be assessed to see what preventative treatment you will need depending on your risk factors.

Treatments include:

- Compression stockings for most patients
- A low dose of a blood thinning medicine (heparin, given as a small injection or tablet once a day and prescribed after discharge)
- Early mobilisation after surgery
- Bed exercises to keep the blood flow going in your legs
- Maintaining good fluid intake

How effective is the preventative treatment?

Compression stockings reduce the risk of deep vein thrombosis and of pulmonary embolism and so are used on all surgical patients except those who have poor circulation in their legs.

The use of a blood thinning agent such as a low molecular weight heparin (LMWH) injection reduces the thrombosis risk by up to 50% and risk of pulmonary embolus by up to 65%. It is used for most orthopaedic patients and some other patient groups according to the type of surgery. In some patients it will be advised that the LMWH injection is continued on discharge from hospital for up to 4 weeks after surgery.

What can I do at home?

After you are discharged you should continue to be as mobile as possible, as this speeds up the blood flow in the calf veins and helps prevent a thrombosis.

If you have been asked to use the compression stockings make sure they are put on evenly and without wrinkles.

Stop smoking, drink plenty of water.

If you do not take the precautions that have been mentioned to you then your risk of thrombosis and its complications will be higher.

What are the symptoms of DVT?

Typical symptoms in the leg include swelling associated with pain, calf tenderness and occasionally heat and redness compared to the other leg.

There may be no leg symptoms and the DVT is only diagnosed if a complication occurs in the form of a PE.

There are other causes of a painful and swollen calf especially after injury or surgery so you need to ask your GP to assess you and he may ask you to be seen urgently at the hospital if he suspects a DVT.

If I get a DVT can it be treated?

DVT is a treatable condition. The aim of treatment is to prevent the clot spreading up the vein and allow it to slowly dissolve and also to prevent the serious complication of PE.

Once a DVT has been diagnosed you will be given injections initially followed by anticoagulation tablet treatment (warfarin) to thin the blood.

You will then be referred to the anticoagulation service for regular checks and follow up. You will be advised to stop taking warfarin after a few months if the DVT is a one-off event.

If you have had more than one DVT you may be advised to continue warfarin for the rest of your life with regular monitoring.

Managing pain and sickness after surgery

This pamphlet explains about pain relief after surgery. There are many effective treatments to help keep you comfortable after your operation. The different ways of relieving pain will be explained before your operation by the doctors and nurses and the most suitable one for you and your type of surgery will be provided.

What is pain and how can it be measured?

Pain is the unpleasant sensation that people experience after an injury or surgery. You will be asked to tell the doctors and nurses about any pain you have. They will ask about the severity of the pain at rest and on movement such as coughing or sitting out of bed.

We ask patients to score their pain with a number on a 0 - 10 scale.

0 (zero) would mean that you have no pain and at the other end of the scale 10 would be very severe pain.

Why do we treat pain?

- Good pain relief is very important and has many benefits:
- Greater comfort while you recover from surgery.
- Quicker recovery as breathing exercises, mobilising and physiotherapy can all be managed with less discomfort.
- Improved results after surgery and fewer complications as good pain relief reduces problems such as pneumonia and blood clots.

How will my pain be treated?

There are many different ways to control pain and sometimes a combination of treatments is used to get the best results. The effectiveness of your pain relief will be assessed regularly and adjustments to the treatment can be made if required. We aim for patients to be able to cough, deep breathe and move around the ward without experiencing significant discomfort.

It is much easier to relieve pain if it is managed before it gets too severe, so you should ask for help when you experience pain and continue your treatment regularly.

The available methods of pain relief are:

- tablets, liquids and suppositories
- injections
- patient controlled analgesia (PCA)
- nerve blocks

Tablets, liquids and suppositories

If you are able to eat and drink, the most convenient way to take painkillers is by mouth. We know that combinations of different types of analgesics (pain killers) provide the best pain relief.

Paracetamol is prescribed for nearly all patients to take regularly after surgery as research has shown it improves the effectiveness of other painkillers. It also reduces the side effects from stronger medicines because they may be given in a smaller dose.

Injections

When patients are experiencing a lot of discomfort, an injection of strong painkiller can be given either into a vein or muscle. There are ways of giving injections through a small plastic tube in the vein or skin, which avoids the need to use a needle more than once.

Patient controlled analgesia (PCA)

PCA is a system that allows you to be in control of your own pain relief. A pump containing morphine or another strong pain killer is connected to a drip which is usually placed in a vein in your arm. When you press a button on a handset that is attached to the pump a small, safe dose of painkiller is given into the drip. PCA allows you to decide how much pain relief you need and avoids any wait to get analgesia and also any further injections.

There is no correct number of times to press the handset button as only you will know how much effect the medicine is having. The pump will emit a quiet “beep” to let you know that you have pressed the handset firmly enough. The pump records how many times the button is pressed to allow staff to decide if you are getting the dose that is best suited to your needs. It is important not to let the pain build up before pressing the button.

The pump is programmed to make sure that you cannot give yourself too much morphine and will normally allow a dose every 5 minutes. This time interval can be adjusted to suit individual requirements.

PCA is very safe as long as **only** you press the handset button, as only you know the pain you can feel and how much painkiller you need to relieve it.

PCA is a safe and effective way of giving strong pain-relieving medication. However, as with all drugs, it can produce some unwanted side effects, the more common of which are tiredness and a light-headed feeling, vivid dreams, itchiness and nausea and vomiting. Treatments are readily available to treat any unpleasant side effects so it is very important to report any symptoms.

You can have PCA until you are able to take medicines by mouth.

Patients sometimes worry about becoming addicted to strong medicines but when used to treat pain after surgery, morphine does not cause addiction.

Nerve blocks

A nerve block is when the nerve supply to an area that is being operated on is anaesthetised with local anaesthetic solution. This will normally make the area or limb feel weak and numb. Nerve blocks normally last for the first 12 hours or slightly longer after surgery. In addition to the nerve block, most patients will also be prescribed pain-killing medicine.

Your anaesthetist will explain about when and how the nerve block may be performed. With all nerve blocks there is a very rare chance of nerve damage but modern techniques make the risk of this extremely low and the pain relief they provide is very good.

Nausea

The medical and nursing staff understands how unpleasant it is to feel sick or vomit after an operation and will treat these symptoms seriously and promptly, so it is important to inform staff if you do feel sick.

Before you have an anaesthetic you will be asked about any previous experience of sickness after surgery and other questions, which will identify if you are more at risk of being sick (such as motion sickness).

Effective anti-sickness treatments are available and can be given before, during and after surgery.

You can reduce the likelihood of feeling sick after surgery by avoiding sudden movements, starting to drink in sips before building up to a full cup and having light meals.

Painkillers to take at home

When you are ready to be discharged from hospital the ward doctors will write a prescription for painkillers along with other medicines that they want you to continue at home.

The painkillers will work most effectively if taken regularly and also if they are taken together with regular paracetamol (four times a day).

We recommend your pain medication is reduced and then discontinued as healing occurs and discomfort decreases, which is usually within five days.

An information leaflet on how to stop pain killers at home will be provided and explained on discharge.

The Pain Service

At the West Suffolk Hospital, we aim to provide the safest and best pain relief for all patients after surgery. To achieve this, we have an acute pain service that is staffed by doctors and nurses to provide specialised pain treatment to any patients who require it.

Ask your doctor or nurse if you wish to contact the acute pain service.

References

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https://www.accessable.co.uk/organisations/west-suffolk-nhs-foundation-trust

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