

Patient information

Embolectomy and Thrombolysis

Vascular Department

Your Consultant /Doctor has advised you to have an embolectomy and/or thrombolysis

What is embolectomy and thrombolysis?

An embolus is a thrombosis (blood clot) or piece of debris that moves from one artery to another in the body. The lower limb is most commonly affected, the upper limb less so. The embolus moves with the flow of blood from the heart or a large artery to a smaller more peripheral artery. Any artery may be affected.

If the arm or leg arteries become blocked by an embolus the blood supply to the arm or leg may be severely affected. The initial symptoms may be of pain with an inability to use the limb properly (the leg may give way or a hand may drop things) with numbness and sometimes paralysis. The hand or foot may turn pale and discoloured blue or white. When this happens suddenly this is called acute limb ischaemia.

An embolectomy operation removes the blood clot from the artery by an open operation. The artery is opened at or above the site of the blood clot and removed with a balloon catheter. X-rays of the circulation are often used to check that the circulation has been cleared of the blood clot.

Thrombolysis is the injection of a clot dissolving drug. This can be undertaken at the same time as embolectomy, directly injecting the drug into the clot or in the radiology suite during an X-ray intervention on the arteries. The drug can also be given intravenously but will circulate throughout the whole body. Heart attack and stroke are increasingly being treated with clot dissolving drugs.

What are the benefits of having embolectomy and thrombolysis?

The aim of the operation is to clear the blocked arteries of blood clot and to restore the circulation back to normal.

If the ischaemia (lack of blood) is severe and prolonged there is a risk of permanent damage to the muscles and nerves of the limb with a risk of major amputation and even a risk to your life unless surgery is undertaken.



What are the risks?

Common complications (greater than 1 in 10) include postoperative bruising and sometimes bleeding from the operation site.

Occasional complications (between 1 in 10 and 1 in 100) include wound infection, seroma (a swelling caused by collection of fluid) or infection of a prosthetic graft or patch if this has been used. It may be necessary to treat infections with intravenous antibiotics and drain lymph collections by needle aspiration.

If there has been bleeding under the wound an additional operation may be required to remove a haematoma (blood clot under the wound). Thrombolysis (injection of a clot dissolving drug) can cause a stroke in 1 in 100 patients. If the embolism or thrombosis recurs there will be a need for further surgery.

If repeated attempts are unsuccessful there is a risk of amputation. Chest infections may occur requiring antibiotics and physiotherapy. The risks are increased if you smoke or with a general anaesthetic. Other occasional risks include heart attack and arrhythmia (irregular heart beat).

Rare complications (less than 1 in 100) include stroke and transient ischaemic attack (stroke symptoms for less than 24 hours) and kidney failure. There may be swelling of the limb in association with deep vein thrombosis (blood clot in a deep vein) or pulmonary embolism (blood clot in the lung).

There may also be superficial nerve injury to the leg causing an area of permanent numbness or weakness/paralysis. These complications make up the majority of the known 1 in 10 fatality risk. These risks are increased if you smoke.

Are there any alternatives available?

Some patient's acute ischaemia is very mild and will fortunately recover without surgery but this is uncommon. Some patients will present after too long a period of acute ischaemia and need amputation or palliative care. Some other patients with less severe acute ischaemia can be treated in the X-ray department with catheters to remove or dissolve the clot.

What happens if I decide not to have treatment?

The acute ischaemia may progress causing the tissues of the arm or leg to die resulting in gangrene. This will give you a life threatening risk.

What sort of anaesthetic will be given to me?

You may have the procedure under general anaesthesia or local anaesthetic with a sedative. General anaesthesia is drug-induced unconsciousness: it is always provided by an anaesthetist, who is a doctor with specialist training.

Unfortunately, general anaesthesia can cause side effects and complications. Side effects are common, but are usually short-lived: they include nausea, confusion and pain.



Complications are very rare, but can cause lasting injury: they include awareness, paralysis and death. There is a risk of damage to teeth, particularly caps or crowns and veneers. Your anaesthetist will take every care, but occasionally damage can occur.

Local anaesthetic is drug-induced numbness: it may be provided by an anaesthetist, surgeon or other healthcare professional, depending on the technique used. Like all medicines, local anaesthetics may sometimes cause side effects, as well as the effects that are needed. You may experience dizziness, blurred vision, drowsiness and occasionally loss of consciousness.

Serious side effects are rare, and include fits, low blood pressure, slowed breathing and changes in heartbeat, which may be life-threatening. If you have any concerns about any of these effects, you should discuss them with your doctor.

If you have sedation, the drugs used in sedation may affect your memory or concentration for up to 24 hours. Many patients remember nothing about the procedure or even what the doctor has said to them afterwards.

The risks of anaesthesia and surgery are lower for those who are undergoing minor surgery, and who are young, fit, active and well.

For more information, please ask for a copy of the leaflet “**You and Your Anaesthetic**” (PIF 344).

You will be given an opportunity to discuss anaesthetic options and risks with your anaesthetist before your surgery.

If you are worried about any of these risks, please speak to your Consultant or a member of their team.

Getting ready for your operation

- You will usually be admitted to the hospital as an emergency. Blood tests, a heart trace and a chest X-ray will be undertaken in the ward. You will be assessed to see what type of anaesthetic you need.
- The staff will ask routine questions about your health, the medicine you take at the moment and any allergies you may have.
- You will be given instructions on eating and drinking before your operation.
- You will be able to discuss the operation with a doctor. You will be asked to sign a consent form to say that you understand the procedure, and what the operation involves.
- If you smoke, you should stop completely. The risks of stroke are greatly increased in smokers and there are additional risks of heart attack and lung disease with surgery. Advice and help is available via your physician, GP and through NHS 111.



The day of your operation

- Please leave all cash and valuables at home. If you need to bring valuables into hospital, these can be sent to General Office for safekeeping. General Office is open between 8.30 and 4.30 Monday to Friday. Therefore, if you are discharged outside these times we will not be able to return your property until General Office is open. The Trust does not accept responsibility for items not handed in for safekeeping.
- Please bring any medication you take into hospital with you.
- Please bring in toiletries, nightwear and towels.
- You will be asked to remove jewellery - plain band rings can be worn but they will be taped.
- Please leave body piercings at home. False nails and nail polish will also need to be removed if worn.
- If you are on regular medication, you will be told to take this if necessary.
- You will be asked to put on a gown and disposable underwear.
- A bracelet with your personal details will be attached to your wrist.
- You may be prescribed some medication to take before your operation by the anaesthetist. A member of the nursing staff will give this to you.
- A nurse and porters will take you to the operating theatre.
- Your dentures, glasses or hearing aid can stay with you on your journey to the operating theatre.
- When you arrive in the theatre area, the ward nurse will leave you, and you will be asked to put on a disposable hat.
- You will then be taken to the anaesthetic room and a member of theatre staff will check your details with you.

What should I expect after my operation?

- After your operation you will be kept in the theatre recovery room before being transferred to the enhanced recovery unit or the vascular ward.
- A nurse will check your pulse, blood pressure, breathing rate and urine output regularly. We will also carefully monitor your wound for any bleeding or swelling.
- The colour, temperature and pulses in the limbs will be checked regularly after the operation.



- **It is important that if you feel any pain you must tell the nursing staff, who can give you painkillers to help.**
- The nursing staff will also advise you when you can start taking sips of water. Anaesthetics can make some people sick.
- If you feel sick we advise you not to drink until this feeling has passed. The nursing staff may offer you an injection to help this sick feeling go away.
- After a few days, you will be allowed to sit out, drink and eat. Return to mobility can take a few more days.

Going Home

You will normally be allowed home after five to seven days.

Pain relief and medication

The nursing staff will advise you about painkillers before you leave the hospital. Please tell the nurses what painkilling tablets you have at home.

Your wound

The surgeon usually uses a dissolvable suture that does not need to be removed. You can expect some swelling and bruising that will take several weeks to settle down.

Getting back to normal

Remember that you have just had an operation. It is normal to feel more tired than usual for a few days afterwards.

You will be safe to drive when you can do an emergency stop and drive without discomfort. This will normally be at about two to four weeks but if in doubt, check with your doctor. Avoid long distances and motorway driving at first.

Returning to work

Depending on your job, you will be able to resume these in one to two months. If in doubt, please ask your doctor.

Further Appointments

A follow up appointment in the vascular clinic of your local hospital will be arranged for six weeks after the operation. You may also see your stroke physician.

Medication

Your antiplatelet medication may change after surgery. Most patients are anticoagulated (to stop the blood from clotting) with warfarin or another anticoagulant medication. Please discuss your current medication with your doctor to avoid any interactions with any other medication.



Feedback

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

Further information

LiVES Contact Numbers

During your contact with us, it is important that you are happy with your care and treatment. Please speak to a member of staff and/or the ward/department Sister/Charge Nurse if you have any questions or concerns.

Vascular Ward

Ward 3

Aintree University Hospital

Tel: 0151 529 2028/2262

Vascular Nurses:

Aintree via switchboard

Tel: 0151 525 5980 Bleep 5609/5594 or extensions 4691/4692

Royal Liverpool Hospital via switchboard

Tel: 0151 706 2000 Bleep 4212 or extension 4675

Text phone number: 18001 0151 706 2000 Bleep 4212

Southport via switchboard

Tel: 01704 705124

Whiston Hospital

0151 290 4508/ 430 4199

Secretaries:

Aintree University Hospital

Tel: 0151 706 3691/ 3523/3524/3481/3457/11813

0151 529 4950/4953

Southport/Ormskirk Tel: 01704 704665



**Whiston Hospital
St. Helens and Knowsley NHS Trust
Tel: 0151 430 1499**

**NHS 111
Tel: 111**

**Circulation Foundation:
www.circulationfoundation.org.uk/vascularisease/**

Smoking cessation:

Liverpool	Tel: 0800 061 4212/ 0151 374 2535
Sefton	Tel: 0300 100 1000
West Lancashire	Tel: 0800 328 6297

**Liverpool Vascular and Endovascular Service
Aintree University Hospital
Lower Lane
Liverpool
L9 7AL
Tel: 0151 525 5980
vascsecs@liverpoolft.nhs.uk**

Participating Hospitals in LiVES are:

- **Liverpool University Hospitals NHS Foundation Trust**
- **Southport District General Hospital**
- **Ormskirk District General Hospital**
- **Whiston and St Helens Hospitals**

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All Trust approved information is available on request in alternative formats, including other languages, easy read, large print, audio, Braille, moon and electronically.

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