

# A guide to insertion of vena cava filter



Turnberg Building  
Radiology 1  
0161 206 2206



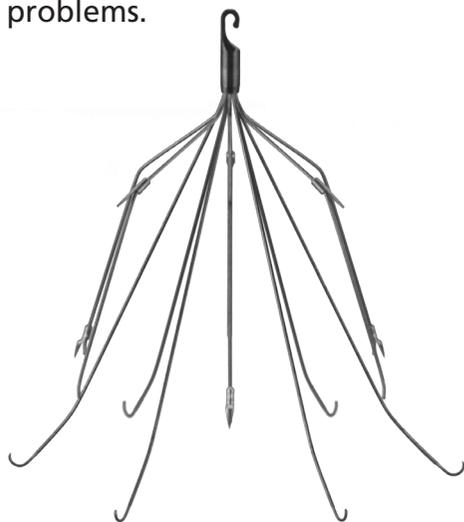
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## What is a vena cava filter?

A vena cava filter (filter) is a small, metal device about an inch long, shaped rather like the spokes of an umbrella. The filter is placed in the vena cava, which is the large vein in the abdomen that brings blood back from the legs and pelvis, towards the heart.

If there are blood clots in the veins in the legs or pelvis, these could pass up the vena cava and into the lungs. The filter will trap most large blood clots and prevent them from entering the lungs and causing serious problems.



## Why do I need a vena cava filter ?

Other tests that you have had done have shown that you have clots in the veins in your legs or pelvis. Generally, these clots can be treated effectively with blood thinning drugs called anti-coagulants such as Warfarin, but in your case your doctor feels that a vena cava filter is required.

Your consultant and the radiologist (specialist x-ray doctor) who will be putting the vena cava filter in, have discussed your case and feel that this is the best treatment option.

You will also have had the opportunity to discuss this treatment with your doctor. The radiologist will also be able to answer any questions you have. After discussion with your doctors, if you do not want the procedure carried out you can decide against it.

## Who will do the vena cava filter?

A specially trained doctor called an Interventional Radiologist will insert the filter.

Interventional Radiologists have special expertise in using x-ray equipment to guide the filter in place as well as interpreting the images produced. They will need to look at the images while carrying out the procedure.

## How long will it take?

The procedure takes between 20 and 60 minutes.

## Where will the procedure take place?

Generally in the x-ray department, in a special "screening" room. This is an x-ray room designed for specialised procedures.

## What preparation is there for a vena cava filter?

You need to be admitted to hospital for the procedure. Please see your admission letter for instructions for fasting for this procedure. You will be asked to undress and put on a hospital gown.

If you are taking any Anticoagulants i.e. Warfarin, Clopidogrel, Aspirin please contact your GP as these medications may need to be stopped several days prior to the procedure.

**Please take all other medication as normal.**

If you have any allergies, you must let the doctor on the ward know. If you have previously reacted to intravenous contrast medium, the dye used for kidney x-rays and CT scanning then you must also tell your doctor about this.

## What does the procedure involve?

You will be asked to lie on the x-ray table, usually on your back. You will have a small needle put into a vein in your arm so the radiologist can give you a sedative, if you want one. You may also have a monitoring device attached to your finger. This checks your pulse and temperature. You may be given oxygen through small tubes in your nose. This is not painful

This is a sterile procedure. The radiologist will wear a theatre gown and operating gloves.

The skin near the where the filter is going to be put in (called the insertion site) will be cleaned with antiseptic. This can be in either the groin or the neck. We will then use sterile drapes/towels to cover the rest of your body.

Local anaesthetic is put into the skin and deeper tissues at the insertion site of the filter. Local anaesthetic stings for a short while and then the area will go numb.

When the area is numb, a needle will be inserted into the vein.

When the radiologist is satisfied that this is correctly positioned, a guide wire is placed through the needle, and so into the vein. Then the needle is withdrawn and a fine plastic tube, called a catheter, is placed over the wire and into the vein. This catheter has the filter attached to it.

The radiologist uses the x-ray equipment to make sure that the catheter and the wire are moved into the right position, and then the wire is withdrawn. The filter is released from the catheter, and left in place in the vena cava.

The catheter will then be removed and the radiologist will press firmly on the skin entry site for several minutes to prevent any bleeding.

## Will it hurt?

Some discomfort may be felt in the skin and deeper tissues during injection of the local anaesthetic. After this, the procedure should not be painful.

There will be a nurse, or another member of clinical staff, standing next to you and looking after you.

If the procedure does become uncomfortable for you, they will arrange for you to have some painkillers and/or sedative through the needle in your arm.

You will be awake during the procedure, and be able to tell the radiologist if you feel any pain, or become uncomfortable in any other way.

## What happens after the procedure?

You will be taken back to your ward on a trolley. Nurses on the ward will carry out routine observations, such as taking your pulse and blood pressure, to make sure that there are no problems.

They will also look at the skin entry point to make sure there is no bleeding from it.

You will stay in bed on a ward for a few hours or until you have recovered. You may be allowed home on the same day, or kept in hospital overnight.

## Are there any potential risks?

Filter insertion is a very safe procedure, but there are some risks and complications that can arise.

There may occasionally be a small bruise, called a haematoma, around the site where the needle has been inserted, and this is quite normal. If this becomes large, there is the risk infection, and this would then require treatment with antibiotics. It is normal to have redness and swelling around insertion site for a couple of days.

Very rarely, some damage can be caused to the vein by the catheter, and this may need to be treated by surgery or another radiological procedure called an embolization. The doctor in Radiology will explain this to you.

There is a possibility that the filter will actually cause blockage of the vena cava, this can cause swelling of the legs. If this swelling persists for a couple of days you should attend your local Accident and Emergency department. As with any mechanical device, there is also the possibility that the filter will eventually fail to work properly.

There is also a very low risk of the filter moving after it has been positioned.

Despite these possible complications, the procedure is normally very safe, and is carried out with no significant side effects at all.

## What if I decide not to have the procedure done?

If you decide not to go ahead with the procedure after you have had a chance to discuss any concerns you have with the radiologist, we will notify your referring doctor of your decision so that they can discuss the options for further treatment with you.

## Alternative procedures

Your consultant surgeon and radiologist have discussed your case and feel that the clotting in your veins should initially be treated by a vena cava filter.

Surgical operations are available. They are rarely performed for this problem nowadays as they involve additional risks including the need for a general anaesthetic.

## If you are diabetic

If you are diabetic please contact the:

### Diabetes Centre

Monday to Friday between 8.30am and 12 noon on

 **0161 206 2095**

Do this as soon as you receive this appointment and ask to speak to a diabetes specialist nurse.

**Failure to follow this advice may result in your appointment being cancelled.**

## What if I cannot attend for my appointment?

If you have any questions about your examination or cannot make the appointment, please telephone the help-line on:

 **0161 206 2044**

 **0161 206 2404**

Monday to Friday between 8.30am and to 4.00pm

If you are not able to telephone please contact us via email on:

 **[booking.radiology@srft.nhs.uk](mailto:booking.radiology@srft.nhs.uk)**

Please include your name, address, date of birth and hospital number (if known) on all correspondence

Please help us to cut our waiting lists. If you need to cancel or change your appointment call us as soon as you can, so that we can give it to another patient.

## Interpreters

If you need a translator for your examination please call the department so that we can try to arrange this, or there is information about translation services on the back page of this leaflet.

## I need an ambulance, how do I arrange this?

If you need an ambulance there are contact details on your appointment letter.

Please inform the department, using the contact details in this leaflet, if you are arriving by ambulance

## Other sources of information

Your questions should have been answered by this leaflet, but remember that this is only a starting point for discussion about your treatment with the doctors looking after you.

Make sure you are satisfied that you have received enough information about the procedure, before you sign the consent form.

If you require further information about this procedure please contact:

 **0161 206 2206**

 **0161 206 5091**

Further information regarding the examination can be found on the Internet.

## Websites

For general information about radiology departments, visit The Royal College of Radiologists' website:

 **[www.goingfora.com](http://www.goingfora.com)**

 **[www.rcr.ac.uk](http://www.rcr.ac.uk)**

## NHS 111 Service

when its less urgent than 999

 **111**

## NHS Direct

 **[www.nhsdirect.nhs.uk](http://www.nhsdirect.nhs.uk)**

If you require further advice or information about this test please contact the:

 **Radiology Nurse Team,  
Angiography Suite,  
Salford Royal NHS Foundation  
Trust,  
Stott Lane, Salford, M6 8HD**

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**If you need this interpreting please telephone**

Polish

Jeżeli potrzebne jest Państwu tłumaczenie, proszę zadzwonić pod numer.

Urdu

اگر آپ کو اس ترجمانی کی ضرورت ہے تو مہربانی کر کے فون کریں۔

Arabic

إذا كنتم بحاجة الى تفسير او ترجمة هذا الرجاء الاتصال

Chinese

如果需要翻译，请拨打电话

Farsi

اگر به ترجمه این نیاز دارید ، لطفاً تلفن کنید

**0161 206 0224**

Email: [InterpretationandTrans@srft.nhs.uk](mailto:InterpretationandTrans@srft.nhs.uk)

Under the Human Tissue Act 2004, consent will not be required from living patients from whom tissue has been taken for diagnosis or testing to use any left over tissue for the following purposes: clinical audit, education or training relating to human health, performance assessment, public health monitoring and quality assurance.

If you object to your tissue being used for any of the above purposes, please inform a member of staff immediately.

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<http://www.srft.nhs.uk/for-patients>