Patient Information Leaflet

York and Scarborough Teaching Hospitals NHS Foundation Trust

Insertion of an Inferior Vena Cava Filter

Information for patients, relatives and carers

ⓘ For more information, please contact:

York Hospital, Wigginton Road, York, YO31 8HE

Vascular Imaging Unit:

Telephone: 01904 726065

About this leaflet

This leaflet tells you about the procedure known as insertion of an inferior vena cava (IVC) filter, explains what is involved and what the possible risks are. It is not meant to replace discussion between you and your doctor about the procedure but can act as a starting point for such a discussion.

If you are having the IVC filter inserted as a pre-planned procedure, then you should have plenty of time to discuss the situation with your consultant. If you need the vena cava filter inserted as an emergency, then there may be less time for discussion, but none the less you should have had sufficient explanation before you are asked to sign the consent form.

What is an inferior vena cava (IVC) filter?

It may be a permanent or temporary device. An IVC filter is a small, metal device about four centimetres long, shaped rather like the spokes of an umbrella. The IVC 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 of the legs or pelvis, these could pass up the IVC to the heart and on into the lungs. The filter will trap large blood clots and prevent them entering the lungs where they could otherwise cause serious illness. The filter will not trap smaller clots and does not provide complete protection against clots moving through the blood vessels.

Why do I need an IVC filter?

Other tests may have shown that you have clots in the veins in your legs or pelvis, or that clots have passed upwards into the lungs. Generally, these problems can be treated effectively with blood thinning drugs (anti-coagulants), but in your case it is felt that an alternative or additional form of protection from blood clots is required. Sometimes a filter is only needed temporarily. Your doctor will discuss with you whether a temporary or a permanent filter is needed in your case.

Who will be inserting the IVC filter?

A specially trained doctor called an interventional radiologist. Interventional radiologists have special expertise in using x-ray and scanning equipment, interpreting the images produced and using them to guide medical procedures such as the insertion of an IVC filter.

Nurses and radiographers will assist during the procedure.

Who has made the decision?

The consultant in charge of your case, and the interventional radiologist inserting the IVC filter will have discussed the situation and feel that this is the best treatment option. If, however, after discussion with your doctors, you do not want the procedure carried out, then you can decide against it.

Where will the procedure take place?

In the Interventional Radiology department.

How do I prepare for insertion of an IVC filter?

You need to be an in-patient in the hospital. You should avoid eating for one hour before, though it is all right for you to drink some water. You will be asked to put on a hospital gown. The filter is fed into the vena cava from a large vein, usually in the groin or low in the neck. You may therefore be asked to shave the skin around the groin.

If you are taking any anti-coagulant medication, this may need to be stopped, or the dose modified before the procedure.

If you have any allergies, you **must** let your doctor know.

If you have previously reacted to intravenous contrast medium (the dye used for kidney x-rays and CT scanning) you must also tell your doctor about this.

What actually happens during insertion of an IVC filter?

You will lie on the x-ray table, generally flat on your back. You may have a monitoring device attached to your chest and finger and may be given oxygen through small tubes in your nose.

The radiologist will wear a theatre gown and operating gloves. The skin over the chosen groin or neck vein will be cleaned with antiseptic, and the surrounding area covered with a sterile drape.

Local anaesthetic will be given in the skin and then a needle will be inserted into the vein. An ultrasound scanner may be used to guide the needle and check for clots. A fine plastic tube called a catheter will then be advanced into the vein.

Contrast media (X-ray dye) is given through the catheter and pictures taken to confirm the correct position. The filter is then advanced into the IVC through the catheter.

The catheter will then be removed and one of the team will press firmly on the skin entry point for several minutes to minimize any bleeding.

If the filter is to be temporary, then when the time comes for it to be removed the procedure will be very similar to that for insertion and will be explained to you at the time.

Will it hurt?

Some discomfort may be felt during injection of the local anaesthetic. After this, the procedure should not be painful. There will be a nurse on hand to look after you.

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

How long will it take?

Every patient's situation is different, and it is not always easy to predict how complex or how straightforward the procedure will be. Generally, the procedure will be over in about half an hour.

What happens afterwards?

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 generally stay in bed for a few hours. You may be allowed home on the same day or kept in hospital overnight.

Are there any risks or complications?

IVC filter insertion is a very safe procedure, but there are some risks and complications that can arise when a filter is in place.

There may be a bruise over the vein where the needle has been inserted, and this is quite normal.
More serious bleeding is very unlikely.

There is a possibility that the filter will become blocked within the vena cava, particularly if it catches a large clot. The vena cava normally brings most of the blood back from the lower body to the heart. If it becomes blocked the consequences depend upon the quality of other venous channels and are variable but can be serious.

There is a remote possibility that the filter could damage the vein or become dislodged within the venous system so that it causes damage to the heart or lungs.

Even if the intention is to place a temporary IVC filter, for example during a period when you are unwell or having surgery, it is not always possible to remove the filter afterwards so that it becomes permanent.

X-rays are used to take the pictures, so the procedure also carries small risks associated with ionising radiation. If you are female and you might be pregnant, it is essential that you inform a member of staff beforehand.

The amount of radiation varies depending on the complexity of the procedure but will usually be equivalent to having one or two abdominal x-rays. This is similar to what you receive naturally from the environment, as something called background radiation, in about six months.

Finally

Some of 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.

Tell us what you think of this leaflet

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact: Dr Rajashekar Gali, Radiology, York Hospital, Wigginton Road, York, YO31 8HE or telephone 01904 726065.

Patient Advice and Liaison Service (PALS)

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email yhs-tr.patientexperienceteam@nhs.net

An answer phone is available out of hours.

Teaching, training and research

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

Leaflets in alternative languages or formats

If you would like this information in a different format, including braille or easy read, or translated into a different language, please speak to a member of staff in the ward or department providing your care.

Patient Information Leaflets can be accessed via the Trust's Patient Information Leaflet website: www.yorkhospitals.nhs.uk/your-visit/patient-information-leaflets/

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