

Radiology department

Superior vena cava (SVC) stent

This leaflet tells you about the procedure known as superior vena cava (SVC) stent insertion. It explains what is involved and the benefits and risks.

What is an SVC stent?

An SVC stent is a wire mesh tube about 6 to 10 cm (3 to 4 inches) in length. The stent is placed in the superior vena cava. This is the large vein in the chest which brings blood back to the heart from the head and arms. The stent keeps the vein open and improves the blood flow.

Why do I need an SVC stent?

You have a narrowing or blockage of the SVC which is reducing the return of blood to your heart. This is either caused by a tumour pressing on the vein, or scarring following treatment. You may have other symptoms of SVC obstruction such as; swelling of the face and arms, redness of the face, headaches, difficulties in breathing, swallowing or dizziness.

It is important to note that the reason for having an SVC stent is to improve the symptoms you are experiencing and won't have an impact on the other aspects of your overall health.

Who has made the decision?

Your doctors and the radiologist (specialist doctor) inserting the SVC stent will have discussed the situation, and feel this is the best treatment option.

What to tell the doctor

- If you have any allergies.
- If you have had a previous reaction to intravenous contrast medium (the dye used for some X-rays and CT scanning).
- It is important to tell the doctor or the radiology department **before attending for admission** if you are taking medication to prevent blood clots. Below is a list of some of the medications which are used to thin the blood and help to prevent blood clots.

If you are currently taking any of these medications, please contact your referring doctor or the radiology department on 0161 918 2346 as soon as possible, as these may need to be stopped prior to your procedure. Failure to do so may result in your procedure being postponed.

Apixaban	Dabigatran	Fragmin
Clexane	Dalteparin	Rivaroxaban
Clopidogrel	Enoxaparin	Warfarin



Is there any preparation for my stent?

You may need to have your blood tested a few days before, or on the day of the procedure. This is just to check that it is safe to go ahead.

Please make sure you bring any regular medications with you into hospital. You may also bring an overnight bag with any belongings you will need such as pyjamas, toiletries and a mobile phone.

The radiologist will explain the procedure and any possible risks to you and ask you to sign a consent form.

Agreeing to treatment

We will ask you to sign a consent form agreeing to accept the treatment that you are being offered. The basis of the agreement is that you have had The Christie's written description of the proposed treatment and that you have been given the opportunity to discuss any concerns. You are entitled to request a second opinion from another doctor who specialises in treating this cancer. You can ask your own consultant or your GP to refer you.

Your consent may be withdrawn at any time before or during this treatment. Should you decide to withdraw your consent, then a member of your treating team will discuss the possible consequences with you.

Who will insert the SVC stent?

The radiologist (specialist doctor) will insert the stent. Radiologists have special expertise in using X-ray and ultrasound equipment, and also in interpreting the images produced. They need to look at these images while carrying out the procedure.

Where will the procedure take place?

In the dedicated procedure room on the integrated procedure unit (IPU, department 2).

Will I need to be admitted into hospital?

You will be asked to attend the IPU on the day of your procedure. You will need to stay in the hospital overnight following the procedure. We will ask you to put on a hospital gown.

What happens during the insertion of an SVC stent?

On arrival at the IPU you will have the opportunity to discuss the procedure with the radiologist. The radiologist will explain all the benefits and possible risks associated with this procedure and we will ask you to sign the consent form.

You will lie on the X-ray table, generally flat on your back. You will also have monitoring devices attached to you (blood pressure cuff on your arm, stickers on your chest to monitor your heart and an oxygen saturation probe on your finger).

The radiologist needs to keep everything as sterile as possible and will wear a theatre gown and gloves. The skin around the puncture site is swabbed with antiseptic and the area is covered with theatre towels. The skin over the vein is numbed with local anaesthetic, this will sting for a short time after it is injected into the area.

Once the area is numb, the radiologist will access the vein and determine exactly where the narrowing is using X-rays. The stent will then be placed over the narrowing. Sometimes it is necessary to use a small balloon placed within the stent to help it expand fully. This can be a little sore but is usually very quick.

A check using X-rays is then carried out to make sure the stent is working well. The equipment is then removed and a little pressure applied to the vein until any bleeding has stopped.

Will it hurt?

Some discomfort may be felt in the skin and deeper tissues during the injection of the local anaesthetic. If the balloon is blown up, some discomfort in the chest or shoulders may be experienced. There will be a nurse, or another member of clinical staff looking after you, who can give you painkillers if needed. As the contrast dye passes around your body, you may get a warm feeling. However this soon passes and should not worry you.

How long will it take?

This will vary from patient to patient and it is not always easy to predict how long it will take. You should normally expect to be in the procedure room for about 1 hour 30 minutes.

What will happen afterwards?

You will be taken back to the recovery bay on the IPU if you are an outpatient, or back to your ward if you are an inpatient.

Groin approach: You need to stay flat on your back for 1 hour (to prevent bleeding).

Neck approach: You will need to sit upright for 1 hour (to prevent bleeding).

Nurses in recovery and on the ward will carry out routine observations, such as your blood pressure and pulse, at regular intervals. They will also look at the puncture site to make sure there is no bleeding from it. Unless you require other treatment, you should be able to go home the following day.

Are there any risks or complications?

SVC obstruction is a serious condition. The overall risk of severe or life-threatening complications is low with this procedure, and most people benefit from a good reduction in symptoms after.

Overall, benefits outweigh the risks and this will be discussed with you by your doctors. In general, SVC stent insertion is a safe procedure, but there are some risks and complications that can arise as follows:

- there may occasionally be a bruise or bleeding from the puncture site in the groin or neck
- very rarely, some damage can be caused to the vein or the nearby artery and this may need to be treated by a blood transfusion or another procedure
- in rare cases the sudden increased return of blood to the heart may cause heart failure and fluid on the lungs, this can be life-threatening
- sometimes the stent can become blocked by a clot, this may cause recurrent swelling of the arms and face and may require further procedures
- the stent could be placed in the incorrect position or move into the heart or lungs, but this is not common. There is a small chance that your heart rhythm can change. For this reason, your heart will be monitored throughout the whole procedure. This will usually settle quickly by itself without any complications. However, on very rare occasions, it may require treatment
- there is a small chance of infection

What are the benefits of the procedure?

Improving the blood return to the heart gives long-lasting relief to most people who have SVC stents.

What are the alternatives?

Other treatment options may include radiotherapy or chemotherapy to reduce the tumour, blood thinning medication, venous bypass operations, or doing nothing.

What happens next?

Once the stent is implanted, it stays in place permanently. Your doctors will discuss other treatments you may need.

Further information

Further information is available from the radiology department on the phone numbers below or from the following websites:

Macmillan Cancer Support www.macmillan.org.uk

British Society of Interventional Radiology www.bsir.org

Contacts

In you have any concerns or questions, call the radiology department on **0161 918 2346** Monday to Friday, 9am to 5pm.

Out of hours and at weekends, ring The Christie Hotline on **0161 446 3658** (24 hours a day, 7 days a week).

If you need information in a different format, such as easy read, large print, BSL, braille, email, SMS text or other communication support, please tell your ward or clinic nurse.

The Christie is committed to producing high quality, evidence based information for patients. Our patient information adheres to the principles and quality statements of the Information Standard. If you would like to have details about the sources used please contact **the-christie.patient.information@nhs.net**

For information and advice visit the cancer information centres at Withington, Oldham, Salford or Macclesfield. Opening times can vary, please check before making a special journey.



Contact The Christie Hotline for
urgent support and specialist advice
The Christie Hotline: 0161 446 3658
Open 24 hours a day, 7 days a week