

**Patient Information  
Undergoing Insertion of  
Superior Vena Cava Stent**

**Directorate of Clinical Radiology**

## **Introduction**

This leaflet tells you about the procedure known as Insertion of a Superior Vena Cava stent, explains what is involved and what the possible risks are. It is not meant to replace informed discussion between you and your doctor but can act as a starting point for such a discussion.

The insertion of such a stent may be a matter of some urgency and there may be less time for discussion but nonetheless you should have sufficient explanation before you sign the consent form.

## **What is the Stent?**

The stent that will be used is a small metal device consisting of a tube of mesh with a diameter of about 1cm and varying in length from 4cm - 8cm. More than one stent may be used. The stent is placed in the superior vena cava, which is the large vein which brings blood back from the upper limbs and head and neck to the heart.

## **Why do I need a Superior Vena Cava Stent?**

The other tests that you have had have shown that this main vein is compressed and is restricting the blood flow. This is the cause of your facial and possibly upper limb, swelling. There may also be some blood clots within the veins.

## **Who has made the decision?**

The consultant in charge of your case and the radiologist will have discussed the situation and feel that this is the best treatment option. Once the procedure has been performed, further treatment will be required to deal with the underlying cause.

## **Who will be inserting the stent?**

A specially trained doctor called a radiologist. Radiologists have special expertise in using x-ray equipment and also in interpreting the images produced. They need to look at these images whilst carrying out the procedure.

## **Where will the procedure take place?**

In the x-ray department in a special screening room, which is adapted for specialised procedures.

## **How do I prepare for insertion of a superior vena cava stent?**

You will be an in-patient in the hospital. You will probably be asked not to eat or drink for about 4 hours beforehand. You may be told it is alright for you to drink some water. You will be asked to put on a hospital gown. As the procedure is generally carried out using one of the arm veins / neck and also the large vein in the groin, you may be asked to shave the skin around the groin area. If you have any allergies you must let your doctor know.

## **What actually happens during insertion of the stent?**

You will lie on the x-ray table generally flat on your back. The radiologist will keep everything as sterile as possible and will wear a theatre gown and operating gloves. The skin near the point of insertion in the forearm and in the groin will be cleaned with antiseptic. Most of the rest of your body will be covered with theatre towels.

A small needle will be introduced into the vein in your arm and subsequently a fine wire and small catheter introduced so that contrast can be injected to outline the veins in the upper part of your body.

Local anaesthetic will be introduced into the skin in the right groin and a needle introduced into the main vein. A fine wire, followed by a catheter, will then be passed into the vein.

The radiologist uses the x-ray equipment to make sure that the catheter and wire are moved into the right position. The wire from the groin will be manipulated through the narrowing in your main vein and the stent positioned and deployed. The stent may not expand fully and it may be necessary to inflate a balloon inside the stent to produce the desired effect. Once the stent has been deployed contrast will be injected to confirm that the position is correct and that it is working well. The

catheters will then be removed from the arm and the groin and pressure applied to stop the 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. Occasionally some discomfort may be experienced in the chest when the stent stretches the tissues surrounding the narrowed vein. You will be awake during the procedure and able to tell the radiologist if you feel any pain or become uncomfortable in any other way.

### **How long will it take?**

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

### **What happens afterwards?**

You will be taken back to your ward on a trolley. Nurses on the ward will carry out routine observation, such as taking you pulse and blood pressure, to make sure 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, until you have recovered. You will probably be kept in hospital overnight.

### **Are there any risks or complications?**

This is a safe procedure but there are some risks and complications which 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 a large bruise, there is a risk of it getting infected and this would then require treatment with antibiotics. Occasionally, because of the presence of blood clots in the veins above the narrowed segment, it may be necessary to give a drug that will dissolve the clot and allow the stent to function properly. There are possible complications, such as bleeding from other sites when giving such drugs. If this is necessary at the time of the procedure, then this would be discussed with you.

### **Finally...**

Insertion of a superior vena cava stent is considered a safe procedure and designed to relieve the symptoms that you are experiencing. It is not a cure for the disease which has resulted in the narrowing of the main vein. There are some slight risks involved and although it is

difficult to say how often these occur, they are generally minor and do not happen very often.

**For further information contact:-**

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**“This document is available in Welsh /  
Mae’r ddogfen hon ar gael yn Gymraeg”.**