University Hospitals Dorset
NHS Foundation Trust

Portacath Insertion

Radiology Department Patient information

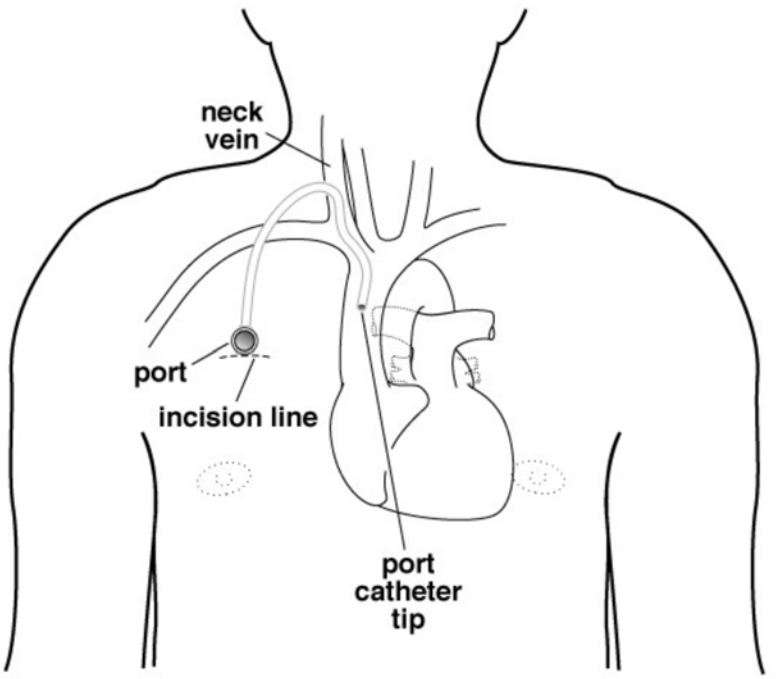
Information and advice for patients and carers on what a portacath is, how it is put in and how to care for it once it is in place.

What is a portacath?

A portacath is a type of central venous catheter. It is made up of two main parts which are the portal and the catheter. The portal is a small reservoir compartment, the top of which is called the septum. The septum is made of self-sealing silicone rubber into which a special needle can be inserted. The septum can be punctured up to one thousand times and therefore can be used for many years. The portal is connected to the catheter, which is a thin, flexible tube.

The portal is implanted under the skin, usually in the upper chest, or occasionally in the upper arm. The catheter then runs under the skin and enters the large vein in the lower neck (internal jugular vein). The portacath is completely internal and cannot be seen outside of the skin. Occasionally, a bump can be seen on the chest wall where the portal is sited - this depends on patient size and also on the size of the portacath implanted.

Portacaths can be made from titanium or plastic. The type and size of your portacath will be decided upon by your doctors and depends on the type of treatment you will be receiving.



How is a portacath used?

The person trained to use a portacath will locate the portal reservoir (which is under your skin) with their fingers. The area will be disinfected before the portacath is accessed by using a special type of needle. This needle is designed so that it does not damage the portacath septum. Blood is sucked back to check that the portacath is functioning normally, before the system is flushed with saline. After this, treatment can be given. After this, treatment can be given. After each use, the Portacath is flushed with saline to prevent clotting.

When the needle is inserted through the skin into the portacath, you will feel a pricking sensation. This sensation should decrease over time.

Why do I need to have a portacath?

Your treatment includes fluids or medications that need to be delivered into the bloodstream on a regular basis. portacaths are often used when giving medications for patients whose veins are difficult to locate, or for those on long term treatment or therapy. Also, your portacath can be used to withdraw the blood samples needed to monitor your progress.

Before your procedure

Before having a portacath put in, the reasons for it will have been discussed with you by the team looking after you. If, at any time, you think of any questions or are unsure about any information you have been given regarding the portacath, please do not hesitate to contact us. There are telephone numbers included at the end of this information leaflet.

You will need to sign a consent form.

We will need to know what medications you are taking, especially if any of them are to thin your blood, for example, Warfarin. It may be necessary for you to stop taking some medications for a few days before your portacath is inserted.

You should not have anything to eat for six hours before your procedure. You may continue drinking water only up to two hours before your procedure.

What will happen on my procedure day?

You will be admitted onto one of the hospital wards as a day-case patient. You will be asked to put on a hospital gown. One of the doctors / nurses on the ward will need to place a small cannula (hollow tube) into a vein in the back of your hand or your arm. This will allow medications needed before, during and after your procedure to be given to you. You will be brought to the special procedure room in the X-ray department on your bed.

After the procedure, you will be transferred back to the hospital ward where you were admitted to at the start of the day for the remainder of your recovery period. Most patients are usually able to go home later on the same day after their procedure.

What hospital staff might I meet?

There will be nursing staff on the ward that you are admitted to that will look after you before and after your procedure. In the special procedure room in the X-ray department you will see the Interventional Radiologist who will perform the procedure. The Radiologist will be helped by Radiographers and X-ray nurses. Radiographers are specially trained to work the X-ray machines. The X-ray nurses help the Radiologist with the equipment needed for the procedure.

Is there any information I should tell the person inserting my portacath?

If you have a heart pacemaker the portacath should ideally be inserted on the opposite side. If you have broken the bones in your shoulder or your collar bone before, this can occasionally alter the pathway that the veins take and may alter the choice of vein.

How is the portacath put in?

You will be asked to lie on your back on an x-ray table. The skin around the base of the neck and across the front of your chest will be cleaned with antiseptic and sheets placed around the area to keep everything clean. It may be necessary to shave the hair off from a small area of your chest. You will have monitoring devices attached to your arm and finger and chest - this is routine practice.

One of the X-ray nurses will give you sedation medication through the cannula (hollow tube) in your hand or arm. The intravenous (IV) sedative will make you feel relaxed and sleepy. You may or may not remain awake, depending on how deeply you are sedated.

The skin and deeper tissues over the vein at the base of your neck and an area over one side of the top of your chest will then be anaesthetised with local anaesthetic. As local anaesthetic is injected it will sting initially, but this soon passes. Using an ultrasound machine to help see the blood vessels, the Interventional Radiologist will insert a needle into the vein. Once this is in the correct position, a guide wire is placed through the needle, and into the vein.

A small 'pocket' under the skin on your chest will be made. This is to insert the portal reservoir into. This will leave you with a fine scar about 3cm in length.

The catheter part of the portacath is then tunnelled under the skin from the portal to the base of your neck. It is at this point that the catheter is pushed into the vein over the wire that was inserted at the start of the procedure. The position of the catheter in the vein is confirmed using X-rays.

The portacath is held in position under the skin by non-dissolvable sutures (stitches).
The skin over the portal reservoir will be closed with dissolvable stitches - these will dissolve in two to three weeks. There will be a dressing stuck over the top - this should stay in place for at least 48 hours after the procedure. You will also have a dressing covering the small nick at the base of your neck. This also needs to stay in place for at least 48 hours. This nick is very small and usually only needs a paper stitch on it to help it heal.

Will it hurt?

When the local anaesthetic is injected, it will sting to start with, but this soon passes, and the skin and deeper tissues should then feel numb. The local anaesthetic does not take away the feeling of pushing or pressure and at some points during the procedure you may be aware of this. If you become uncomfortable in any way during the procedure, please let the Radiologist or X-ray nurse know.

Once the portacath is in place, the special needle used for access is inserted through the skin into the portacath. When this is done, you will feel a pricking sensation. This sensation should decrease over time.

How long will the procedure take?

Every patient's situation is different, and it is not always easy to predict how complex or straightforward the procedure will be. Generally, the procedure will take about an hour. You may be in the X-ray department for a short time after your procedure has finished whilst the nursing staff complete routine observations of your blood pressure and pulse.

What happens afterwards?

You will be taken back to your ward on your bed. Nurses on the ward will continue to carry out routine observations for a short period of time. They will also check your dressings to make sure there is no bleeding. You will generally stay in bed for a few hours, until you have recovered. You should be allowed home on the same day. As soon as you have recovered from the sedation, you will be able to eat and drink.

You should arrange for someone to collect you and accompany you home - you should not drive yourself for at least 24 hours after sedation.

Following the procedure, you may experience a little discomfort or bruising in your neck or across the front of your chest. This is quite normal. This usually settles over a few days, but you may require some over-the-counter painkillers to help. Strenuous activities such as heavy lifting should be avoided for one week.

What are the risks of having a portacth?

Infection: It is possible for an infection to develop at the insertion site on the skin or within the bloodstream. If this area becomes red, swollen or oozes, or if you develop a temperature, you should tell the team who look after you at home or at the hospital straight away. If an infection occurs, you may be given antibiotics or, occasionally, the Portcath may have to be removed. If you shiver after the line has been used, this may mean there is an infection inside the line. Please tell the team looking after you if you feel unwell or shiver after the line is used.

Clots: When a catheter sits in a vein, there is an increased chance of a blood clot (thrombosis) forming in the vein. If you do develop a blood clot, you may be given medicines to dissolve the clot and your line may have to be removed. Signs of a blood clot in the vein include swelling, redness or tenderness in the arm, chest area or up into the neck (on the same side as the portacath).

Lung collapse: This happens in less than 1% of patients and may require further treatment to avoid breathing complications. You will usually have to stay in hospital until the lung has healed.

Stenosis: When a catheter is within a vein for a long period of time, there is a risk that the vein can become narrowed or stenosed. If this happens, the catheter may have to be removed and another put in through a different vein.

Mechanical failure: This is extremely unlikely. It is usually discovered by the inability to flush or withdraw fluids from the portacath system.

Air in the portacath system: Air must not be allowed to get into your portacath. Only appropriately trained healthcare professionals should access your portacath. Blood is always withdrawn from the portacath system before any fluids are injected to avoid accidental introduction of air.

Frequently asked questions

How will I know if something is wrong?

Complications do sometimes occur. Contact the team who look after you at home or at the hospital as soon as you suspect that something is wrong of if any of the following happen:

- Pain, redness or swelling in your arm, neck or chest (on the same side as the portacath)
- If you shiver or feel unwell after the line has been used.
- Shortness of breath or dizziness

If you have a temperature above normal, fever, chills or feel generally unwell, this could indicate the beginning of an infection.

If you have any worries about your portacath, do not hesitate to contact the team who look after you at home or at the hospital.

What if my portacath is not used on a regular basis?

The implanted portacath must be flushed with a heparin solution to prevent blood clots from forming into the catheter. This creates what is referred to as a heparin lock. The portacath will be flushed after each treatment you receive, or every four weeks if your treatment intervals are longer than this.

How long can my portacath stay in for?

If your portacath is properly cared for, it should last for the duration of your treatment.

Can I play sports?

Vigorous or strenuous activities involving repetitive movements (for example, weight-lifting or racket games such as squash or tennis) are discouraged as they increase the risk of damaging the catheter part of the portacath.

As the portacath is completely internal with no parts visible on the outside of the skin, swimming and bathing are not a problem. If in doubt, please ask a member of the team who look after you.

Can I have an MRI scan with my portacath in?

It is possible for the majority of patients with a portacath in place to have an MRI scan. You may however be aware of a warm sensation over your portacath whilst you are having your scan. It is important that you tell the MRI staff that you have a portacath in place.

Can I go through airport security with my portacath?

Airport metal detectors will not affect your portacath and will not usually be set off. You will be given a wallet-sized identification card when your portacath is inserted. It is always a good idea to keep this with you.

Alternatives to a portacath.

There are two alternatives to a portacath. These are:

Cannula in a small vein in your arm. This however is often not possible or safe.

Central venous catheter that comes out from under your skin.

The reasons for choosing a portacath will have been discussed with you by the team looking after you. Please do not hesitate to ask questions that will help you make any decisions about having a portacath.

How is the portacath removed?

The removal of a portacath is performed under local anaesthetic and sedation. The procedure is similar to the insertion procedure.

Useful Phone Numbers

Royal Bournemouth Hospital switchboard: **0300 019 3626**

Radiology Appointments: **0300 019 4286**

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