

## Implantable ports

This information is about implantable ports, which are sometimes called portacaths or subcutaneous ports. Implantable ports are often used to give chemotherapy treatment and/or other medicines to both adults and children with cancer.

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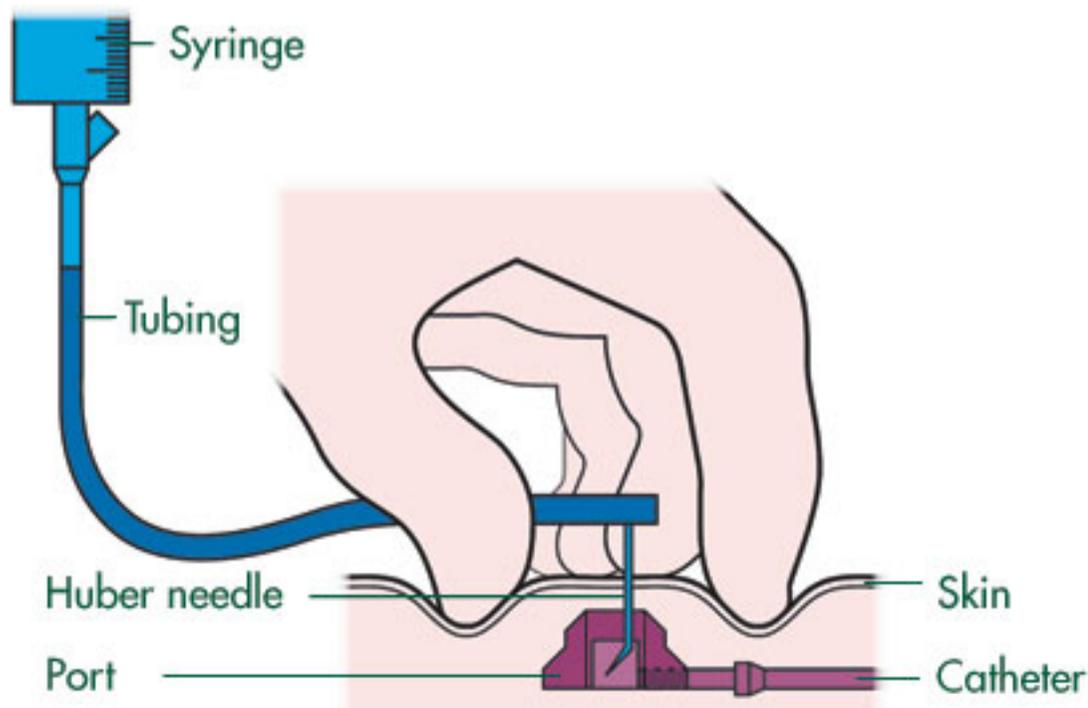
We hope this information answers your questions. It only gives information about intravenous ports and not about arterial ports, for which the care is slightly different. If you have any further questions, you can ask your doctor or nurse at the hospital where you're having your treatment.

## Implantable ports

An implantable port is a thin, soft, plastic tube that is put into a vein in your chest or arm and has an opening (port) just under the skin. It allows medicines to be given into the vein, or blood to be taken from the vein.

The tube, which is long and hollow, is known as a catheter. The port is a disc about 2.5–4cm (1–1.5in) in diameter.

The catheter is usually inserted (tunnelled) under the skin of your chest, or sometimes in your arm. The tip of the catheter lies in a large vein just above your heart. The other end of the catheter connects with the port, which sits under the skin on your upper chest or arm. You'll be able to see and feel a small bump underneath your skin, but it won't show on the outside of your body.



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Illustration of an implantable port

## What implantable ports are used for

A port can be used to give you treatments such as chemotherapy, blood transfusions, antibiotics and intravenous (IV) fluids. Ports can also be used when you need to have blood tests. It means that you don't need to have needles put into the veins in your arms every time you have treatment.

You can go home with the port in, and it can be left in place for weeks, months or, for some people, years.

A port may be very useful if doctors or nurses find it difficult to get needles into your veins, or if the walls of your veins have become hardened after previous treatment.

A port is more discreet than a central line or PICC line, because it lies completely under the skin and has no external parts.

## How the implantable port is put in

Your port will be put in at the hospital by a specialist nurse or doctor. It's usually done in the operating theatre or an area called the vascular radiology unit. It will usually be put in under a local anaesthetic, but sometimes a general anaesthetic is used. Before your surgery it might be helpful to discuss the position of the port with your doctor.

You'll have a small needle put into a vein in your arm or hand, and you will be given medicine to help you relax. The nurse or doctor will inject a local anaesthetic into your skin to numb a couple of small areas on your chest and neck. After this you may be aware of activity around you and you might feel some pressure on your chest (or arm) during the procedure, but you should not feel any pain.

You'll have one or two small cuts (incisions) made in your skin. If the port is put into a vein in your chest, it will be placed in an incision on your upper chest. The incision will be about 3–4cm (1–1.5in) long. There will be a smaller incision above this, usually less than 1–2cm (0.5–1in) long. The catheter will be put into a vein in your chest and tunnelled under the skin from the lower incision to the incision above. The catheter is attached to the port, which is fitted into a space created under the skin. The incisions are then stitched.

You'll have a chest x-ray to make sure the port is in the right place.

If the port is put into a vein in your arm, it will be on the inner side of your arm.

You may have a small dressing to cover the wounds for a day or so after the procedure. The nursing team will teach you how to look after this.

You may feel a bit sore and bruised for a few days after the port is put in. A mild painkiller, such as paracetamol, will help.

Immediately after the port has been put in and for a few days after, check for any redness, swelling, bleeding, bruising, pain or heat around the wounds. Let your hospital doctor know straight away if you have any of these signs, as you could have an infection, which may need to be treated.

If the stitches are not dissolvable, they will be removed after about 7–10 days when the wound heals.

## How the implantable port is used

If necessary, the port can be used soon after it has been put in. About half an hour before you have treatment or have a blood sample taken, the skin over the port will be numbed with an anaesthetic cream and cleaned.

A special needle, known as a Huber needle, is used to push through the skin and into the port. This shouldn't be painful, but you may feel a pushing sensation.

The Huber needle connects to the catheter, allowing treatment to be given directly into the bloodstream. Blood samples can also be taken through the port if needed.

If you're having a short treatment, the needle will then be withdrawn. For longer treatments, a dressing will be taped over the needle to hold it in place until the end of the treatment, when it will be removed.

## Care of your implantable port

After each treatment, a small amount of fluid is 'flushed' into the catheter so it doesn't become blocked. The port will need to be flushed every four weeks if it isn't being used regularly.

The nurses at the hospital will teach you (if you feel able to), or a relative or friend, to do this. Otherwise a district nurse can do it for you at home.

Apart from this, your port will not need any other care.

## Possible problems with implantable ports

### Infection

It's possible for an infection to develop inside the catheter or around the port. You should tell your hospital if:

- the area around the port becomes red, swollen or painful
- you develop a high temperature (fever)
- you feel faint, shivery, breathless or dizzy.

If an infection develops, you'll be given antibiotics. If these don't clear the infection, or if the infection is serious, the port may have to be removed.

### Clots

It's possible for a clot (thrombosis) to form in the vein where the catheter sits. Signs of a clot include swelling, tenderness or redness in the neck or arm on the same side of the body as the port (depending on where exactly the catheter is).

If this happens, the port may have to be removed. You'll be given medication to dissolve the clot, called an anticoagulant.

### Blocked line

The inside of the catheter can sometimes become partially or totally blocked (occluded).

If this happens, it can be difficult for treatment to be given or for blood samples to be taken. The catheter may be flushed with a solution to try to clear the blockage, or the port may need to be removed.

## How the implantable port is removed

When you no longer need the implantable port, it will be taken out. This is usually done by a specialist doctor who will use a local anaesthetic to numb the area. Sometimes the port will be removed under a general anaesthetic.

The doctor will make a small incision over the site of the port and remove it. The catheter will be pulled out of the vein. The wound is then stitched and covered with a small dressing.

You may feel a bit sore and bruised after your port is removed. A mild painkiller, such as paracetamol, will help with this.

## Additional information about implantable ports

The port shouldn't interfere with your daily activities, but it's advisable to avoid strenuous exercise for a few weeks after surgery so your body can heal. Your doctor or nurse can give you information about this.

If the port is in your arm, don't let anyone take your blood pressure or take blood from a vein in that arm. Don't lift anything heavier than 15lb (7kg).

Only the Huber needles should be used on your port. Don't let anyone use any other type of needle on your port.

You may wish to wear a medical ID bracelet saying that you have an implanted port.

## References and thanks

This section has been compiled using information from a number of reliable sources, including:

- Bishop, et al. Guidelines on the Insertion and Management of Central Venous Access Devices in Adults. International Journal of Laboratory Haematology. 2007.
- British Committee for Standards in Haematology. Guidelines on the insertion and management of central venous access devices in adults. 2006.
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- Perry MC. The Chemotherapy Source Book. 4th edition. 2008. Lippincott Williams and Wilkins.

## Thanks

Thank you to Mr Andrew Jackson, IV Consultant Nurse, and the people affected by cancer who reviewed this edition. Reviewing information is just one of the ways you could help when you join our Cancer Voices network.

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