



Port Insertion

Port insertion

A port, also known as a portacath, is a type of Central Venous Access Device (CVAD) that is often used in patients who require chemotherapy to be given by infusion over several months. The main advantage it has over other CVADs is that it is entirely enclosed under the skin so it is less visible and the vast majority of activities can be maintained as normal, even swimming. Once successfully sited it also has a lower risk in infection and is lower maintenance compared with other CVADs.

What is a Port?

A port refers to a small device of about 2.5 cm across and 1.5cm deep (see picture above) that is implanted under the skin, usually on the chest wall just underneath the collar bone. In common with all CVADs there is a small soft hollow tube attached to the port which runs underneath the skin, the other end of which sits in a large vein just above the heart. The port has a soft silicone membrane on one side which is how the port is accessed using a special needle.

How is the port used?

When a nurse or doctor needs to access the port they place a special type of needle called a Huber needle through the skin overlying the port and into the port itself. The skin can be numbed with local anaesthetic cream first if desired. Once the needle is in place it can be secured to the chest wall for some time and your medication can administered. The same needle can also be used to take bloods for testing. Once administration of your medication is finished the port will be flushed through with saline or heparin and the needle simply removed.

How is the port inserted?

The port insertion process usually takes about 45 minutes and takes place in an operating theatre. Sedation is administered via a small cannula placed in the back of the hand and local anaesthetic is then given to numb the skin. This has a mild stinging effect for a few seconds only. Note that the sedation is intended to make you feel less anxious, it will not usually make you go right off to sleep like a general anaesthetic.

The port is normally inserted on the right side of the body but may sometimes be inserted on the left for clinical reasons. The vein scan you receive on the day of the procedure and your clinical history will guide this decision. Once the skin is numbed the small tube is placed in the vein, passed under the skin if necessary, and attached to the port. The port is then placed under the skin just below the clavicle via a 3cm cut in the skin. The cut is closed using absorbable stitches and a dressing placed over the top.

X-rays are taken in theatre to confirm that the port is in the correct position.



Preparing to have a port inserted

All patients will need to have MRSA swabs taken ideally one week prior to the procedure to allow time for processing and to allow time for treatment if the swabs are positive. If you have started chemotherapy you will need to have blood tests taken 24-48 hours prior to the procedure, if not then blood tests taken within the last 8 weeks will normally suffice. Most blood thinning drugs e.g. Rivaroxaban, Warfarin, Apixaban, will need to be stopped. You will be advised how many days before the procedure you need to stop taking these medications if necessary.

On the day you may eat up until 6 hours before the time of your procedure. You may drink water freely up until the time of admission.

You should ensure that someone is available to collect you and drive you home afterwards as you cannot drive (or operate machinery) for 24 hours after having had sedation.

What is visible afterwards?

Although the entire port device is enclosed under the skin a bump will be visible where the port sits (see photo). This is necessary so that whoever is accessing the port to give your treatment can find it and access it easily. There will be a 3cm scar under the collarbone and, depending on the particular vein used; there may be a 2-3 mm scar at the base of the neck. In some cases you may also be able to see and feel the small silicone tube as it runs over the collar bone, particularly if you are very slim.

What should I expect afterwards?

You will be able to go home about an hour after the procedure is finished but you will need someone to drive you home and should not drive yourself (or operate machinery) for 24 hours due to the sedation received during the procedure.

There will be some mild tenderness over the port site and you may have a slightly stiff neck on the side of port insertion for a few days. Simple painkillers e.g. paracetamol and/or ibuprofen will suffice.

Aftercare

If you have skin glue over the wound you may shower the next day but do not rub the area (allow it to dry naturally) until fully healed and do not fully immerse it in water (bathing/swimming) for 14 days or until wound is fully healed. The skin glue will fall off naturally by about 7 days. It is inadvisable to engage in any vigorous activities involving the upper limbs e.g. golf, swimming for approximately 2 weeks.

In order for the port to be kept in working condition it needs to be flushed by one of the chemotherapy nurses every 4 weeks. However, most chemotherapy regimens are more



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frequent than 4 weeks so the port can simply be flushed at the same time as the treatment is given.

What should I watch out for afterwards?

Mild tenderness and/or neck stiffness is to be expected. You can take paracetamol and/or Ibuprofen afterwards for this. However, moderate to severe pain, perhaps with swelling or redness of surrounding skin and/or any discharge from the wound could indicate an infection.

If concerned please contact your chemotherapy centre in the first instance so that the port site can be inspected.

If you have a temperature or fever/chills at any point you should contact your chemotherapy centre immediately for assessment

Complications

Having a port inserted is generally a very safe procedure. Use of modern imaging techniques (ultrasound and x-ray) has helped to reduce complications associated with this procedure but small risks still remain.

Damage to structures surrounding the vein can occur e.g. to nearby arteries, nerves, or to the lung, causing it collapse (very rare). Infection can occur, either to the skin overlying the port or within the port itself. Sometimes this can be treated with antibiotics but occasionally the port will need to be removed.

Thrombosis means a blood clot in the vein and whilst this is a risk for anyone having chemotherapy, any sort of tube in the vein likely increases this risk.

Ports and the tubes attached to them can (rarely) move position over time and become blocked and unusable. If this was the case then the port might need to be repositioned or even removed and re-sited.

Further Questions

If you have any further questions about having a port inserted then please e-mail Dr Ben Gupta at enquiries@bristolvascularaccess.com or call Bristol Vascular Access on 07498 219558 (8-5pm).