Children’s services

Portacath (implantable ports)

What is an implantable port?
An implantable port is a type of intravenous (IV) access system that is inserted underneath the skin. It is sometimes called a Portacath or TIVAD (totally implanted venous access device). It consists of a fine tube, or catheter, connected to a small chamber with a self-sealing silicone membrane.

Why is it used?
This system is designed for children and adults who require frequent IV access over a long period of time, in order to give medications such as fluids and antibiotics; to provide nutritional support; or to take blood samples. A Portacath is also useful for those with difficult venous access, as an alternative to numerous peripheral cannulae, or insertion of a long line under local or general anaesthetic.

How is a Portacath inserted?
Having a port inserted requires a small operation; your child will be given a general anaesthetic in the operating theatre. The port is inserted under the skin via a small cut. The surgeon will discuss with you possible positions for siting the port reservoir – the most common places are just below the collar-bone in the upper part of the chest; or underneath the arm on the side of the ribcage. The catheter is then tunnelled under the skin into a large vein near the heart. A second small incision is made in the neck to allow this to be done.
Operation times can vary according to the method of placement of the port and the individual patient concerned, but on average it takes about 45 minutes to one hour. There may be some bruising or swelling to the area, and slight discomfort following the operation, but this generally disappears within about a week. Dissolvable stitches are normally used, so stitches will not need to be removed after surgery. Once the wounds are healed, the device is completely inside the body, and there is just a small bump visible beneath the skin.

**What will the Portacath look like – will my child have a scar?**

There are no tubes or surgical devices visible. If you are quite slim there may be a bump visible under the skin where the port chamber has been inserted. Otherwise, depending on your child’s build and the position of the port, it may not be visible at all.

There will be a small scar up to 5cm long where the port chamber has been inserted and another small scar in the neck, where the catheter has been threaded into the vein. Each individual heals differently, but most people find that the scars are minimal and fade well.

**How is the Portacath used to give treatments?**

The system is accessed by pushing a special needle (called a Huber non-coring needle) through the skin and the silicone rubber membrane of the port reservoir. This is done as a sterile non-touch procedure, to reduce the risk of introducing infection.

Local anaesthetic cream, such as EMLA, Denela or Ametop, or ‘cold spray’ can be used to numb the area before the needle is inserted. This should not then be painful, although your child may feel a slight pushing sensation.
If the port is being accessed just for a flush, the needle will be removed immediately afterwards. If it is being accessed for a course of IV antibiotics or other treatment, the needle will be left in and covered with an adhesive dressing. Medicines will be given through a bung at the end of the tubing connected to the needle. The Huber needle may be changed after seven days, but may be left in for longer, for example, for a two week course of IV antibiotics.

**How long can the Portacath be left inside?**

The port can be left in place for as long as your child needs treatment, for many months and even years.

However, in order to prevent the catheter from becoming blocked, the port must be accessed and flushed every four to six weeks with a heparin solution which will prevent blood clots forming. This can be done at home by your community nurse; in the clinic by your nurse specialist; or a parent/ carer may be taught how to do it.

**Are there any risks or complications?**

Rare but possible complications can be:

- **Blockage.** This can usually be resolved by putting a special flush (Urokinase) into the port, which will dissolve a blood clot.
- **Not bleeding back.** This can be disappointing (because the port can no longer be used to take blood samples), but it can usually still be used to give medications. We may need to check that the port is still working properly. This is done by injecting dye into the line and then performing a special x-ray, to make sure that all parts of the system are working correctly.
- **Leakage.** This may occur if a forceful flush is attempted when the line is blocked. A special x-ray (see above) can check if the port is working properly.
- **Infection.** Local infection can be treated with antibiotics, but very occasionally, if the port itself becomes infected, it may have to be removed. In these cases, if necessary, a new port can be sited somewhere else.

**Is there anything my child cannot do if he/she has a Portacath?**

- The port is normally a totally enclosed system and therefore your child will be able to shower, bathe and swim as normal.
- When the port has been left accessed for a course of treatment, your child is advised to avoid contact sports and activities which might dislodge the needle. No swimming is advised while the port is accessed.
- The port should not interfere with your child’s daily activities, although he/she should not take strenuous exercise for a week or two after surgery, to allow the wound to heal.
- There is usually no problem with metal detector security systems, for example, at airports.
Many children continue education or work during a course of treatment via the port. A member of your care team will be happy to liaise with schools or employers.

**Further information**

If you have any questions, please don’t hesitate to ask your doctor or nurse.

You can also contact your nurse specialist:

Name: ____________________________________________

Contact no: ____________________________

We are now a smoke-free site: smoking will not be allowed anywhere on the hospital site. For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

**Other formats:**

If you would like this information in another language, large print or audio, please ask the department where you are being treated, to contact the patient information team: patient.info@addenbrookes.nhs.uk.

Please note: We do not currently hold many leaflets in other languages; written translation requests are funded and agreed by the department who has authored the leaflet.

**Document history**

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