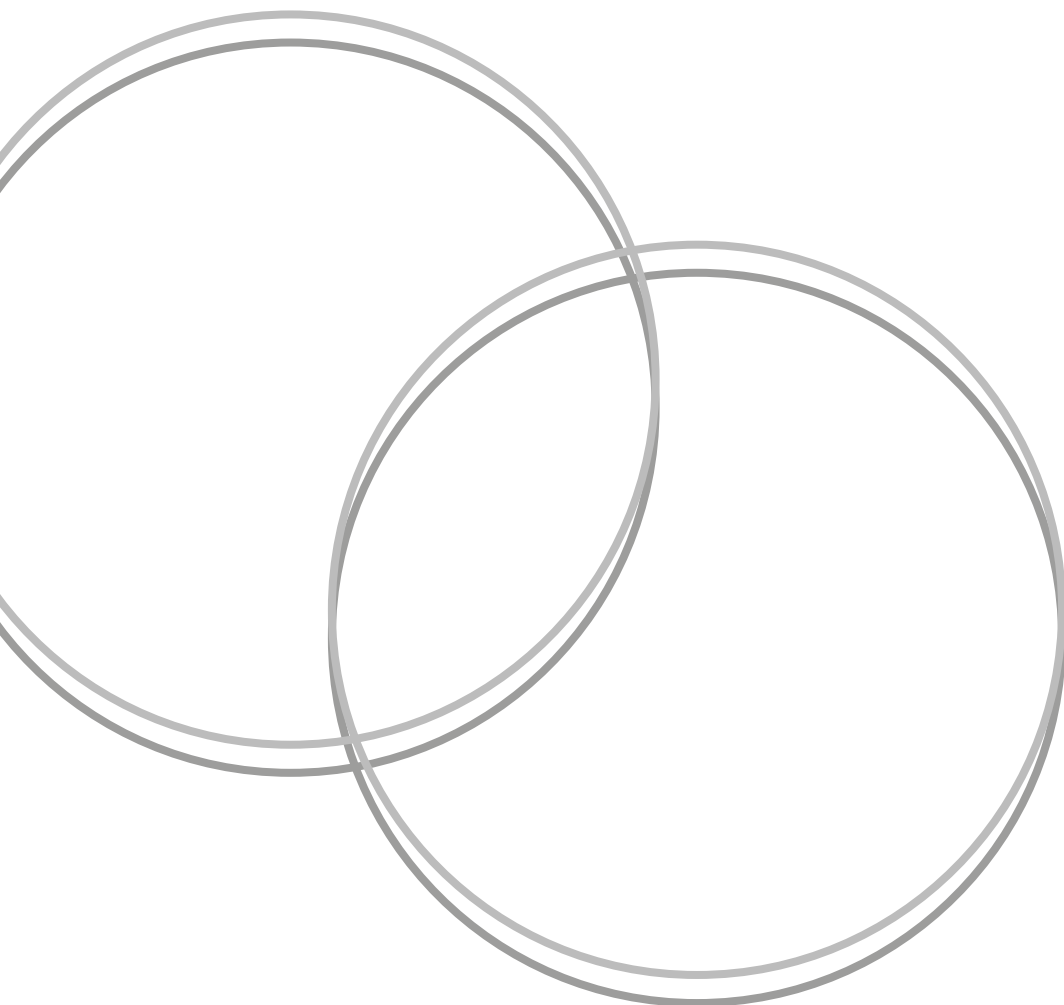




Oxford University Hospitals  
NHS Foundation Trust

# Children's Surgery: Insertion of a port-a-cath

**Information for parents  
and carers**





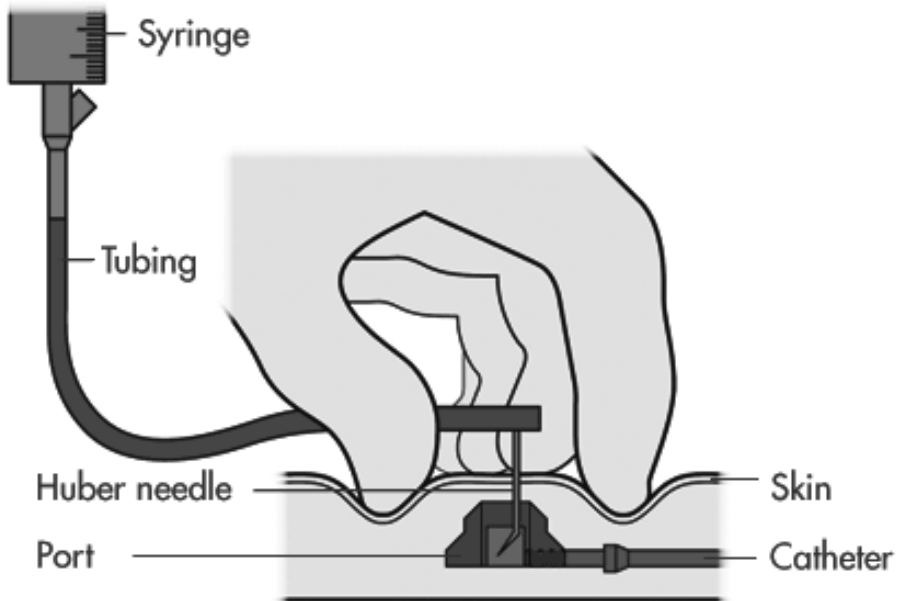
This leaflet explains what a port-a-cath is, why your child needs one and what to expect when your child comes for their port-a-cath to be put in.

## What is a port-a-cath?

A port-a-cath is a titanium chamber (port), which is connected to a thin, hollow silicon plastic tube (catheter). The entire device is placed under the skin on the chest and the catheter is threaded from the chamber into a large vein at the entrance to the heart. This type of line is often called a 'central line'.

The port-a-cath can be used to give your child medicines and also to take blood samples. To do this, a special type of needle known as a 'gripper needle' is inserted through the skin into the port.

### ***Illustration: Accessing your port-a-cath***



*Image: Kind permission from Macmillan cancer support*

## **Why does my child need a port-a-cath?**

If your child has veins that are difficult to access on a regular basis for their treatment, then they may benefit from having a port-a-cath. A port-a-cath can also be used for frequent blood tests.

A port-a-cath can be used for months or years, depending on the need of your child.

## **What are the risks?**

There are risks involved with having a port-a-cath inserted. Your child's doctor will discuss the complications with you. The two main risks are:

- bleeding
- infection.

For information about the anaesthetic risks, please see page 6.

## **Are there any alternatives?**

We usually recommend a permanent indwelling line (central line), such as a port-a-cath, if your child needs frequent blood tests or treatment with medication, or if your child is young. Due to the damage to the veins from repeated insertion of the needles, it may become difficult to insert butterfly needles or cannulas.

An alternative central line is called a Hickman line. It is like the port-a-cath, but the silicon plastic tube is placed into a large vein above the heart. It then comes out of your child's chest at an 'exit' site and is held in place by a small cuff.

The Hickman line can be accessed without requiring a needle, through bungs (ports) on the end of the line. Please ask us if you would like to discuss this option for your child or would like our leaflet on Hickman lines.

## **How is a port-a-cath put in?**

A port-a-cath is inserted either in the operating theatre or in the children's radiology department. The procedure is carried out under a general anaesthetic, which means your child will be asleep throughout the procedure.

Two small cuts (incisions) will be made; one at the top of the collarbone and one on the front of the chest, where the port-a-cath will be placed under the skin.

The tip of the line will be threaded into the large vein that leads towards the heart. The other end of the line will then be tunnelled under the skin, into the titanium chamber. A type of X-ray (fluoroscopy) will be used during the procedure, to guide the surgeon/radiologist and confirm the line is in the right place.

## **Consent**

The surgeon/radiologist will explain the operation to you and will confirm the risks and benefits. We will then ask you for your consent for the operation to go ahead. You will be given the chance to ask any questions you might have before we ask you to sign the consent form. If there is anything you are unsure about, or if you have any questions, please ask the surgeon before signing the consent form.

You will also see one of the anaesthetists involved in the operation. They will explain the anaesthetic process and risks to you, as well as any pain relief your child will have after the operation.

## **Anaesthetic risks**

In modern anaesthesia serious problems are uncommon. Risk cannot be removed completely, but modern equipment, training and drugs have been made general anaesthesia a much safer procedure in recent years. Throughout the whole of life, a person is at least 100 times more likely to suffer serious injury or death in a road traffic accident than as a result of anaesthesia.

Most children recover quickly and are soon back to normal after their anaesthetic. Some children may suffer side effects, such as sickness or a sore throat. These usually last only a short time and there are medicines available to treat them if necessary.

The exact likelihood of complications depends on your child's medical condition and on the nature of the surgery and anaesthesia your child needs. The anaesthetist can talk to you about this in detail before your child's operation.

## **Pre-operative washes**

The night before your child's procedure they need to have a thorough wash in a bath or shower using a special antibacterial wash (chlorhexidine). This process should be repeated the following morning before coming to hospital. You will be given the wash by the hospital.

If your child is too unwell to manage this, you will be given a wipe that can be used directly on their skin. This does not need to be washed or rinsed off.

If your child has an allergy to chlorhexidine the hospital will supply an alternative wash.

Your child will need to wear clean nightwear after the first wash and come to hospital in clean clothes after the second wash the next morning.

These washes can help minimise the risk of infection associated with any surgical procedure.

## **Fasting instructions**

Please make sure your child follows the fasting (starving) instructions.

Fasting is very important before an operation. If your child has anything in their stomach whilst they are under anaesthetic, it might come back up while they are unconscious and get into their lungs.

Please do not give your child chewing gum or boiled sweets on the day of their operation.

If their operation is delayed, the nurses or doctor will let you know if your child can have anything to eat or drink.

## **Pregnancy statement**

All girls aged 12 years and over will need to have a pregnancy test before their operation or procedure. This is in line with our hospital policy.

We need to make sure it is safe to proceed with the operation or procedure, because many treatments including anaesthetic, radiology (X-rays), surgery and some medicines carry a risk to an unborn child. The pregnancy test is a simple urine test and the results will be available immediately. If the result is positive we will discuss this and work out a plan to support your child.

## **What will happen on the day?**

When you arrive, your child's nurse will greet you and show you to the waiting area. The nurse will check your child's paperwork and put some name bands around their wrists or ankles. They will also check your child's temperature, heart rate and breathing rate.

Your child's nurse will look after you and your child until they are in theatre. Together with a play specialist, they can help prepare your child for the procedure. The play specialist can do some preparation therapy with your child; they have special dolls with port-a-caths that your child can see and play with.

The nurse will make sure you understand the routine of the day and your child's care, before the operation, and can answer any questions you both may have.

## **In the anaesthetic room**

A nurse and one parent or carer can come with your child to the anaesthetic room. Your child can also take a toy or comforter.

It may be possible to give the anaesthetic with your child sitting on your lap. Your child may either have anaesthetic gas to breathe, or an injection through a cannula (a thin plastic tube that is placed under the skin, usually on the back of the hand). Local anaesthetic cream (EMLA or Ametop, sometimes known as 'magic cream'), can be put on their hand or arm before injections so they do not hurt as much. It works well for 9 out of 10 children.

If the anaesthetic is given by gas, it will take a little while for your child to be anaesthetised. They may become restless as the gases take effect. If an injection is used, your child will normally go to sleep very quickly. Some parents may find this upsetting.

Once your child is asleep you will be asked to leave quickly, so that the medical staff can concentrate on looking after them. The nurse will take you back to the ward to wait for your child.

Your child will then be taken into the operating theatre to have the operation. The anaesthetist will be with them at all times.



## **After the operation**

After the operation your child will return to the recovery room whilst they come round from the anaesthetic. You will then be collected to go with the nurse to the recovery room, where you will be able to see them.

A recovery nurse will look after your child until they are ready to come back to the ward. The nurse will make regular checks of your child's pulse, temperature and wound. They will also make sure your child has adequate pain relief. The nurse will then bring you and your child back to the ward.

Once your child is awake from the anaesthetic they can start drinking and, if they are not sick, they can start eating their normal diet.

Your nurse can take out the cannula left in from the operation once they know the port-a-cath line can be used.

Your child's post-operative plan (when your child may be able to go home) will be discussed with you before the operation. If this changes, for any reason, we will let you know.

The hospital experience is strange and unsettling for some children, so do not be concerned if your child is more clingy, easily upset or has disturbed sleep. Just be patient and understanding.

## **Follow-up care**

### **Pain relief**

Please make sure you have enough children's pain relief at home. We can give you a short supply of these to take home, but you may need to continue with more of your own supply when these run out. Please see our separate leaflet 'Pain relief after your child's day case surgery' for more information on how much and when to give pain relief.

Your child can continue painkillers for up to 5 days. After this, they should only need occasional doses. If they are still in pain after 5 days you should phone for advice (see contact details on the next page).

## Follow-up

When the port-a-cath has been inserted, the 'gripper needle' used to access the line will be left in place for the first week. This can then be removed if it is not needed more than once a day for treatment.

The nursing staff will arrange for the first dressing change to be done within 24 to 48 hours after the procedure, followed by weekly visits from your community nurses as the wounds heal. After this time, if you would like to be trained in the weekly care of the port-a-cath, please contact your child's hospital care team. They will let you know if this is something that can be done.

## Weekly Care

If the gripper needle needs to be used more than once a day, or needs to remain in place after the first week, the dressing and gripper needle will need changing each week. The dressing will also need changing if it becomes dirty, wet or starts peeling off during the week.

The old dressing will need to be removed and the skin around the exit site cleaned, then a clean dressing reapplied. The line on the outside will need to be looped under the dressing for added security, so that it does not get pulled.

A recommended IV300 dressing should be used, as they are splash proof and clear. You will be given a supply of these if you have been trained to change the dressing. The IV300 allows the line exit site to be looked at without removing the dressing. Occasionally children have a skin reaction to this dressing, in which case we can try different one.

The port-a-cath should be flushed after each use. If it is not being used regularly it should be flushed each week. If the gripper needle and external tube is remaining in place, the bungs on the ends should also be changed using a sterile technique. If we have trained you to care for the port-a-cath this may be something you can do yourself. Flushing and using a drug called Hepsal down the line helps to prevent blockages.

If the gripper needle and external tubing is remaining in place at the end of the line there is a special 'needleless bung'. This allows the line to continue to be used without any needles. A small green cap may also be applied to the end of this needleless bung, to prevent foreign objections being put into the end and to reduce the risk of infection.

These green caps must never be applied directly onto the line as they are not designed for this purpose. This could allow blood to leak from the line and cold also let in infection.

The small clamp on the line must be closed at all times, to reduce the risk of leaking blood or blood clots forming in the line. If you see the clamp is open, simply click it shut again immediately.

# Possible problems with the port-a-cath

## Infection

Infections can develop inside the line or where it is inserted under the skin. If you notice any swelling, redness or pain around the site, or any leaking of fluid or pus, contact your child's hospital care team or local hospital ward (outside of hours) for advice.

If your child develops a temperature higher than 38°C you should contact your local hospital where you have open access immediately. Your child may need to have blood samples taken and may need antibiotics.

## Water

When the line is accessed and a gripper needle is in place, it is best to avoid getting the external line wet or allowing the exit site to go underneath the water, if your child is having a bath. This could potentially cause an infection.

The dressing is splash-proof, so your child can still have a bath as long as the ends are taped up and out of the way, so they don't go under the water. If the port-a-cath is not being accessed, and the wound has had at least 7 days to heal, you do not need to take any special precautions with water.

## Blood clots

A blood clot (thrombosis) can occasionally develop in the line, even when it is being flushed weekly. If you notice swelling in your child's neck or arm on the side of the line site, or any pain or veins that are standing out or more blue in colour in these areas, you should contact your hospital care team or local hospital ward immediately.

Your child may be given medication to dissolve the clot, but we will talk with you about options for treatments.

## **Air in the line**

This is a very rare complication, when air enters the bloodstream through the line. It takes a lot of air to cause a problem, and any infusion sets used are all set up to try to prevent this from happening. Small bubbles are not a problem, but is it best to make sure the clamps are done up when the line isn't in use.

## How to contact us

If you have any worries or queries about your child once you get home, or you notice any signs of infection or bleeding, please telephone the hospital team your child's care is managed by, or the ward where they were seen for the procedure and ask to speak to one of the nurses. You can also contact your GP.

### **Paediatric Haemophilia Centre**

Tel: **01865 226 562**

(9.00am to 5.00pm, Monday to Friday)

For emergency advice or treatment outside office hours, at weekends and on Bank holidays, telephone the Oxford University Hospitals' switchboard.

Tel: **0300 304 7777**

**Ask to speak to the 'On-call Specialist Registrar for Haematology'.**

### **Children's wards:**

Robin's Ward:	<b>01865 231 254/5</b>
Melanie's Ward:	<b>01865 234 054/55</b>
Tom's Ward:	<b>01865 234 108/9</b>
Bellhouse Drayson:	<b>01865 234 049</b>
Kamran's Ward:	<b>01865 234 068/9</b>

All of these wards are 24 hours, 7 days a week.

Oxford University Hospitals Switchboard: **0300 304 7777**



## Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

Authors: Alice Wilkinson, Specialist Nurse Practitioner  
Neha Bhatnagar, Consultant Paediatric Haematologist

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