

Having a portacath insertion in the Interventional Radiology department

This provides information about a portacath insertion, including the benefits, risks and any alternatives. It also explains what you can expect when you come to hospital.

If you have any further questions, please speak to a doctor or nurse caring for you in the Interventional department.

What is a portacath?

A portacath is a small medical device that is installed beneath the skin. It is made of two parts:

1. A soft, thin hollow plastic tube known as a catheter. The tube is tunnelled under the skin with the tip sitting just outside the heart.
2. A port or disc (2.5- 4cm in diameter), which is inserted in the chest and attached to the tube.

Additionally, a portacath is the main form of a central venous access device, and is often called this by medical professionals. Central venous access devices are small, flexible tubes placed in large veins for people who require frequent access to the bloodstream.

The catheter tip will lie in a vein just above your heart and the other end connects to the port in the chest. The portacath shows as a small bump underneath the skin, the nurse will know where to insert the needle because it is possible to feel it under the skin.

What is a portacath used for?

Portacaths are often used when giving medications for patients whose veins are weak or very narrow, or for those on long term treatment or therapy. Blood samples can be drawn many times via the portacath with less discomfort and therefore avoiding needle puncture every time. Doctors recommend the use of portacath for patients who regularly have chemotherapy, long-term antibiotics and infusions. A portacath can be left in for a long period of time, so it can be used throughout your treatment.

Are there any risks?

Serious risks and complications of having a portacath inserted are very rare. However, as with any procedure, some risks or complications may occur. The radiologist will explain these to you.

- Bruising. This is quite common and normally settles a few days after the procedure.
- Infection. The insertion procedure is carried out in a sterile condition to eliminate or reduce any sources of infection. However, infection may still occur from local infection of the skin or from within the bloodstream. Infections can be treated with antibiotics - in extreme cases, we may have to remove your portacath.

- Thrombosis or clot. Sometimes a clot of blood can form at the tip of the portacath. To prevent this, a blood thinning solution can be locked inside the port and the catheter when it is not in use.
- Lung puncture. This happens when the lung is accidentally punctured during the procedure. It is a very rare complication and happens to one in every 1,000 patients. We may keep you in hospital for a few days until the lung has healed.

Are there any alternatives?

The alternatives would be a repeated needle puncture to the vein every time you have treatment or non-implanted central line. Some treatments such as chemotherapy need access to larger veins, so for these treatments a portacath is the most preferred method.

What do I need to do to prepare for the procedure?

You can come into hospital, have a portacath inserted and go home the same day.

- You will need to have a blood test to measure full blood count (FBC) and clotting before the procedure. Your doctor or clinic nurse specialist will tell you how to arrange it when they recommend a portacath.
- If you are currently receiving chemotherapy, a blood test is needed within one week of the procedure. If you are not currently on chemotherapy a blood test within 8 weeks of the procedure is fine. If you have had a blood test for any other reason within this time we can use the results.
- If you are taking any medicines that thin your blood, such as antiplatelet medicines (for example aspirin or clopidogrel) or anticoagulant medicines (for examples warfarin or rivaroxaban), please tell your doctor or the nurse as you may need to stop them temporarily before your surgery. Also tell your doctor or nurse if you have diabetes as you may need to alter the dose of your diabetes medicines, as you will need to fast before the procedure.
- If you have coronary stents or metal heart valves in place then you should not stop these drugs but please let the department know before coming to the hospital. The numbers are at the end of this leaflet.
- You must not eat or drink for six hours before the procedure. We may need to give you a sedative medicine, which may make you feel sick if you have just eaten. You may drink clear, non-milky fluids, such as black tea, black coffee or water up to 6 hours before the procedure.
- Please arrive 1 hour before your appointment to allow enough time for preparation
- You will need a responsible adult to take you home by private transport. We do not recommend that you use public transport as it is unsafe if you feel unwell.
- You may also want somebody to stay with you overnight.

What happens before the procedure?

After you have arrived at the x-ray department, you will be examined and assessed by a radiology nurse and given a hospital gown to wear. A small plastic tube (cannula) will be inserted into a vein in your arm. This means that we can give you a sedative during the procedure, if you need it.

You will be given the opportunity to ask the radiologist (a doctor who uses x-rays to diagnose and treat illnesses) any questions you have.

You will also need to sign a consent form, before the procedure can take place to say that you understand what it involves. If you would like more information about our consent process, please speak to a member of staff caring for you.

How is the portacath inserted?

You will be asked to lie on the x-ray table. The area for the insertion will be cleaned with antiseptic fluid and draped with sterile towels.

The radiologist will inject some local anesthetic into your skin on your chest and neck to numb the area. This may sting a little as it goes in. After this, you should only feel pressure not pain. Please let the nurse know if you are uncomfortable.

The radiologist will make two cuts in the skin. The catheter will be inserted into the vein in your chest via one of these cuts. It will then be tunnelled under the skin to the second cut. The catheter is then connected to the port, which is fitted into a space created under the skin. We will check the position of the catheter and port with the x-ray machine. If it is satisfactory, the cuts are then stitched and the dressing is put over the site.

Will I feel any pain?

The local anesthetic injection will sting shortly. The examination should be pain-free but you may still feel pressure where the doctor is working. If you experience any pain during the procedure, please tell the nurse so pain relief can be given to you.

Once the local anesthetic wears off you may have some pain or discomfort. Pain medication such as paracetamol can be taken to ease the discomfort.

What happens after the portacath has been inserted?

After the insertion you will stay in radiology recovery for two hours. Your blood pressure and pulse will be measured frequently at first and then at regular intervals and a clip on your finger will measure the oxygen level in your blood. This is not painful.

We will provide light refreshment, such as juice/soda and crackers. If you have any special dietary requirements, you are welcome to bring food and drink with you.

Patient Education



The nurse will tell you when you can get up and move around. You will have two dressings on the port site and on the base of your neck. These require changing after 48 hours.

You will need a responsible adult to take you home by private transport. We do not recommend that you use public transport as it is unsafe if you feel unwell. You may also want somebody to stay with you overnight.

When can the portacath be used?

The portacath can be used as soon as it is inserted. Prior to use, the skin will be cleaned. A special needle is then pushed through the skin into the port. Treatment is then given via this needle into the portacath. The treatment goes into the port and flows into the catheter and your bloodstream.

Care of the portacath

The portacath requires very little maintenance once the skin has healed. It is not visible to the outside but a small bump may be felt where the port was inserted. You may have a shower, bath or swim.

Your portacath needs flushing once every four weeks when not in use. If you come in for treatment more frequently than four weeks, it will be flushed during these times. If your appointments are less frequent, you will need to see the nurse or doctor looking after you in clinic to have it flushed.

How will I know if something is wrong with my portacath?

If you have a temperature, chills or feel unwell, please let your medical team know. This could be an early sign of infection.

Also, let your doctor or nurse know if you are experiencing pain, redness or swelling on the pocket or disc site and if your arm, chest, neck or shoulder feels swollen and painful.

How is the portacath removed?

When you no longer need the portacath it will be taken out. This is usually done in the department where you had it inserted. Local anesthetic will be applied to the area. A small cut is then made over the port site and the portacath is removed. As the catheter is attached to the port, this will be removed at the same time. The wound will then be stitched and dressed.

Contact us

If you have any questions or concerns about having a portacath inserted please contact the Interventional Radiology department (Monday to Friday, 8am to 5pm) at (904) 202-2310.

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