

Implanted Ports or Port-A-Caths

Information and advice for patients

Sickle Cell and Thalassaemia Centre

This leaflet has been given to you to help answer some of the questions you may have about dual lumen vortex ports. These can also be known as porta-caths and there are single lumen ports available as well for other treatments. It will explain what you can expect when the port is inserted as well as the benefits and risks of having a port and the many alternatives. If you have any questions please do not hesitate to speak to your specialist nurse or doctor or one of the therapeutic apheresis team.

What is a Vortex Port?

A Vortex Port is a special device is placed under your skin, consisting of a thin flexible tube that is placed in a large vein, it is then connected to double chamber or port implanted under the skin. Single chamber ports are also available and you may well have seen those. The double chamber measures about 4 cm long 2 cm wide and 1 cm deep. Ports are usually placed under the skin on your chest just below your collarbone. It can be used for taking blood samples or giving fluids or drug treatment when finding a vein is difficult. Commonly with sickle cell patients we use a vortex port for patients requiring apheresis (also referred to as red cell exchanges or exchange transfusions). When not in use the vortex port is under the skin and has no external parts. You will probably be able to see and feel it as it is a "lump" under the skin. To use the port we will insert a huber needle known as a huber needle through the skin into the implanted port. If you are having a red-cell exchange 2 needles will be used, 1 to withdraw blood and 1 to return the blood. When the treatment is finished the needles will be removed. There is no limit to how long the port can stay in and you can go home with it in place. But you do need to look after it to avoid complications.

What are the benefits of having a Vortex Port?

We hope they will benefit patients having regular apheresis, but it is too early to say what long-term disadvantages might be. For this reason we are only offering for vortex ports for those patients who find it difficult to have their exchanges any other way. This might be because their arm or femoral veins are too difficult to access. We are also limiting vortex ports to patients who are able to commit to attending the planned red cell exchange appointments regularly. If you're not sure why you are being offered a vortex port one of the specialist team will be happy to discuss this with you. When not in use the vortex port is completely embedded into your skin and there are no external parts. This means you can bath, shower or swim freely. Vortex ports require flushing once every four weeks. Your specialist nurse will arrange a

schedule with you. This is a simple procedure where needle is inserted through the skin into the chamber and a heparinised solution is injected. This helps to keep the vortex port working.

Are there any alternatives to vortex ports?

A vortex port is one type of group of devices known as central venous access devices. You've probably been given this leaflet because your nurse or doctor think that a vortex port might be suitable device for you. If you have got veins in your arms an alternative might be to use these veins. Another alternative is to use the femoral line; a temporary line which is placed in the groin for each time you have an exchange. This placement of a femoral line may need to be done in an operating theatre. Another possibility is a type of tunneled line called a PermACath. This is a long term tunnelled device usually placed on your chest. However, unlike the vortex port, part of the term of line lies outside your body all the time. When not in use it requires weekly flushing and dressing changes. If you would like information about these alternatives please speak to your nurse.

How is the vortex port put in?

Your vortex port will usually be put in by a doctor of interventional radiology or a surgeon and it may be on a different hospital site. Putting in a vortex port is a minor surgical procedure. It takes about 45 minutes and it's carried out in an operating theatre. To reduce the risk of infection the doctor will wear a protective mask, apron and gloves. X-rays are taken during the procedure to check the port is in the correct place. You may also be attached to a heart monitor and fitted with an oxygen mask. Some patients are also given intravenous fluids. Some patients have their vortex ports inserted with only a local anaesthetic but you may prefer to have an intravenous sedative as well. This to help you relax during the procedure and be less aware of what is happening. You can discuss your options with the person putting in the vortex port or with one of your nurses.

Do I need to do anything to prepare for a vortex port appointment?

Your vortex port insertion will usually be arranged by your specialist team. They will refer you to another team who are used to inserting ports. The member of your team will give you the information about the arrangements. If you decide to have an intravenous sedative you may need to attend a pre-assessment clinic before the actual day of the procedure. You will also need to have blood tests and a nose swab. These arrangements will be explained clearly to you. In all cases it is important that you find out if you are allowed to eat or drink the five hours before the procedure. This is a simple safety precaution. If you are taking any medication to thin your blood, you may need to stop this temporarily before your port insertion. Please discuss this with your specialist team.

What happens after the procedure?

As it is an out-patient procedure you will be able to go home on the same day. You should arrange for a friend or relative to accompany you home. If you live alone we advise that you have someone to stay with you overnight. Afterwards you may have some bruising and be a little sore a few days because the line has been implanted into the skin. A painkiller such as paracetamol might ease any discomfort. When the bruising has settled down the port should be painless; you may feel some brief discomfort each time the port is used as a needle is inserted through the skin. However topical anaesthetic gel applied 20 minutes before can numb the site.

We advise patients to wait four weeks before the vortex port is used for a red-cell exchange procedure. This is to allow any swelling to settle. If you need an exchange during this time we suggest using arm or femoral veins.

When and how will the vortex port be removed?

Your vortex port can stay in place for several months or even years if required; it should be removed if it is no longer needed. Sometimes vortex ports will need removing or replacing because of a complication. Removal of the implanted vortex port will be arranged by your specialist team and is similar to the insertion procedure.

Are there any risks associated with having a vortex port?

During insertion

Most vortex port insertions go smoothly. Serious complications are extremely rare. There is a very small risk of a collapsed lung. This happens to less than 1 patient in 100. If it does happen, it is unlikely to lead to serious problems. There's also very small danger of puncturing a blood vessel in the chest or air entering the venous system. These last two complications are thought to happen in less than 1 in 1000 patients; but when they do they can be dangerous.

Infection

Some patients develop an infection because of the vortex port. When infections happen they are usually treated with antibiotics and in some cases the implanted vortex port will need to be removed. Symptoms of infection include a high temperature, a shivery episode, or redness or swelling around the port. You should let the hospital know straight away if you notice any of the symptoms. Present to an emergency department immediately if your temperature is 38°C or greater.

Thrombosis (blood clot)

Having a vortex port can cause you to develop the thrombosis (blood clot) in the vein. Pain in shoulder, neck or arm. Some patients with clots will have veins standing out of the neck or chest on the same side as the port. You should let us know straight away if you notice anything like this. If you develop a blood clot, you will usually be given medication to dissolve it. The port does not always need to be removed. Some patients develop clots around the internal end of the line of the heart but without having any symptoms.

There is also small risk of a blood clot on the lungs. This can be a dangerous complication. If you are concerned at this please talk it over with your team. The symptoms can include chest pain and suffering shortness of breath. This kind of symptoms should be reported immediately.

To reduce the risk of all clots anti-coagulation medication will be considered for you.

Malfunction

If you are having regular red cell exchanges you may find that you exchange takes a little longer than usual for the first few times your port is used. This may be caused by the swelling after the port is inserted. In the majority of cases this will subside after a few weeks. In a small number of cases the port fails to function properly. Possibly because it is been wrongly positioned or has become dislodged. If this happens to the port will need to be removed and replaced.

Blockage

Sometimes the vortex ports get blocked, often they can be unblocked using a special flushing solution. Occasionally this does not work and the port needs removing and replacing with another.

Pain when the port is used

When the port is used, a special needle is inserted through the skin. If you are having a red cell exchange, local anaesthetic can be injected or applied to numb the skin before the needle is inserted. When the port is accessed from the reasons such as a blood test this local anaesthetic should not be required; because the needle used in this situation is much smaller. If you want to use the numbing cream for blood tests please discuss with your nurses.

Difficulty in inserting the huber needles into either of the ports:

The port should only be used by nurses who are specially trained. Find out who this is; it will usually be your haemoglobinopathy nurses and apheresis nurses. Sometimes it may take more than one attempt to successfully insert the needle.

Scarring

Most patients will find they have a scar about 2 cm long just beside the port. There may also be a small cut scar just by your collarbone. Some people make a larger than average scar when their skin is damaged E.g. After a cut or sometimes with a piercing or insect bite. This is known as keloid scarring. It can happen to anybody but is particularly common in people with dark skin such as people from Africa, African Caribbean, Mediterranean and south Indian communities. If this is a problem that applies to you, it is likely that you will already be aware of it. Please discuss this with your team. It may be possible to position the ports where the scars would be less visible.

What happens if I decide not to have a vortex port?

If you decide against the port please discuss the other options with one of your team. It is your choice whether you have a vortex port inserted or not.

What about after-care?

Dressings and stitches

After the port is inserted you will have two small dressings; one on the side of your neck and one next to port. These and any other stitches should be removed 7 to 10 days after your Port is inserted. Until this time you should keep the dresses in place, unless they become soiled. If you have transparent dressing you can shower or bath normally. Other types of dressing should be kept dry. After the stitches are removed You will not need a dressing and can bath and shower normally unless your port is being used.

Other care

In between treatments the vortex port will not need any special care. However if it is not being used for treatment it will need to be flushed every four weeks. This is to stop it from getting blocked. Flushing the port should be done by specially trained nurses. When you get home, it is important that you know who to contact if you have any problems. We would like you to

present to an emergency department if you notice anything following: a high-temperature (at 38° C), shivery episode or any pain or swelling where the port is.

Consent form

By law we have to ask for your consent for putting in your vortex port and we will ask you to sign a consent form. This confirms that you agree to have the procedure and you understand what it involves. Your team will explain all the risks and benefits and alternatives before they ask you to sign a consent form. If you unsure about any aspect of your proposed treatment please do not hesitate to speak with the team again.

Further information: if you have any further questions about ports please feel free to ask a nurse or a doctor from your team.

Contact Numbers

Your Haemoglobinopathy Centre: _____

Your Apheresis team: _____

Out of hours: In emergencies please present to an Emergency Department

How to contact the SCAT centre

If you have any questions or concerns, please contact the Sickle Cell and Thalassemia Centre.

Sickle Cell & Thalassemia Centre

Sandwell & West Birmingham Hospitals

City Hospital, Dudley Road

Birmingham B18 7QH

Tel: 0121 507 6040

City Hospital : 0121 554 3801

Opening Hours

Monday, 9am – 5pm

Tuesday, 9am – 6pm

Wednesday, Thursday and 9am – 5pm

Friday, 9am – 4pm

Saturday blood transfusion service only

The information in this leaflet is general and is intended to be a guide only. Please discuss the specific details of your treatment with your GP/doctor.

More information

For more information please see our regional website:

www.westmidsstn.nhs.uk

For more information about our hospitals and services

Sandwell and West Birmingham Hospitals NHS Trust ; website www.swbh.nhs.uk, you can also follow us on X @SWBHnhs and like us on facebook www.facebook.com/SWBHnhs.

For more information about sickle cell disease and the support available to you, visit the sickle cell society website:

www.sicklecellsociety.org

You can also read more about sickle cell disease on the NHS Choices website:

NHS Choices:

www.nhs.uk/conditions/sickle-cell-anaemia

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