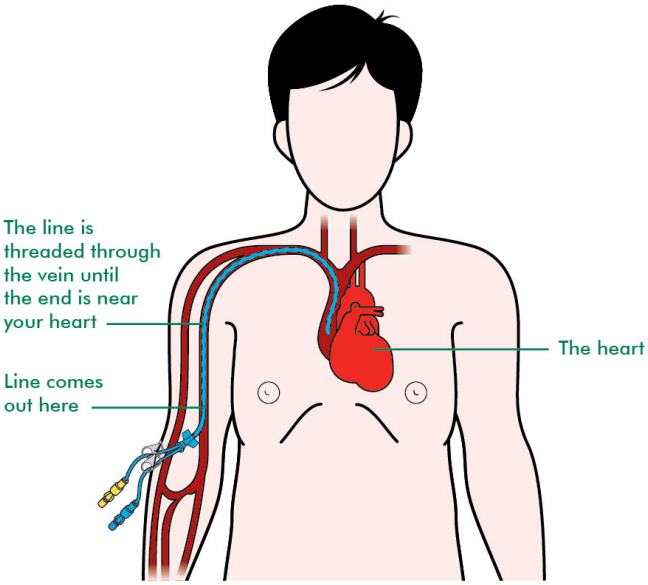
Peripherally Inserted Central Catheter (PICC) Insertion

This leaflet explains more about PICC insertion, including the benefits, risks and any alternatives and 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.



What is a PICC?

A PICC line is a peripherally inserted central catheter. It is a long, slender, flexible tube that is inserted into a peripheral vein, typically in the upper arm. It is then advanced until the catheter tip sits in a large vein near the heart.

Why should I have a PICC?

The PICC line can be used to give you treatments such as chemotherapy, blood transfusions, antibiotics and intravenous (IV) fluids. It can also be used to take samples of your blood for testing. PICC lines can also be used for IV feeding if your digestive system is not able to cope with food for any reason. This means that you won't need to have needles put into veins in your arms every time you have treatment. You can go home with a PICC line in place and it can be left in for several weeks or months.

A PICC line may be helpful if doctors and nurses find it difficult to get needles into your veins and can be helpful if you have anxiety about needles. The PICC may have single or multiple tubes (lumens). This depends on how many intravenous therapies are needed.

What are the risks?

Most PICC insertions go smoothly but occasionally some problems are encountered. Sometimes the shape of the vein can prevent the catheter from advancing. Repositioning the arm can sometimes help but, if it fails, it is usually possible to try again using a different vein.

If PICC placement is unsuccessful, it may be necessary to have a different type of line inserted. We will discuss further alternatives with you and your medical team.

What do I need to know about possible complications after the PICC has been inserted?

Phlebitis: This is inflammation of the vein where the PICC is inserted. The symptoms include redness or pain around where the PICC goes into the skin. It may be caused by the body's response to a foreign material inside the vein. This can occur during the first five to seven days after insertion. To reduce the risk of it occurring, you can apply heat (in the form of a heat pad or hot water bottle) to the area just above the PICC. Do this four times daily for the first two to three days after the PICC has been inserted. You can do this anytime if you notice redness or pain around where the PICC goes into the skin, but contact your GP, community nurse or hospital nurse if it hasn't resolved in 48 hours.

Infection: It is possible for an infection to develop either inside the vein or surrounding the insertion site where the PICC enters the vein. The symptoms include fever, chills, increased heart rate, redness, swelling or appearance of pus at the PICC insertion site. If you experience any of these symptoms please contact your GP, community nurse or hospital nurse.

Thrombus formation: A rare complication of having any sort of device placed in a vein is that a clot may form around it. The clot can slow down and congest the flow of blood through the vein. This is called a venous thrombosis. This may sound alarming but is unlikely to cause a serious problem. It may be treated by medications to dissolve the clot or by removing the PICC altogether. Symptoms may include swelling or shoulder pain on the same side as the PICC or shortness of breath. If you experience any of these symptoms contact your GP, community nurse or hospital nurse.

Leakage: Occasionally leakage at the insertion site may occur. This may be caused by loss of elasticity of the skin at the site, movement of the catheter or rupture of the catheter. Please report any leakage to your GP, community nurse or hospital nurse.

Catheter blockage: Occasionally the PICC line can become blocked. This may be due to improper use and inadequate flushing after line use. The PICC should be flushed before and after use and once a week if not in continuous use.

Inability to draw blood from the PICC: On rare occasions, fluids can be given into the PICC, but blood cannot be withdrawn. This is usually caused by a small blood clot which attaches to the tip of the PICC. It is not dangerous but can be frustrating because blood samples must be taken with a needle from another vein.

Catheter breakage: Rarely, catheter damage can occur. If you notice any damage or any leaking of fluid from the PICC you should report this to your GP, community nurse or hospital nurse.

Malposition/migration: The PICC tip can occasionally move from its correct position (migration/malposition). This may happen with arm movement, changes in body position, coughing, or changes in chest pressure.

You may notice a whooshing sound or slight vibration when the PICC is flushed. This does not always indicate a problem, but you should inform your healthcare professional if this is new or unusual, or if you experience pain, swelling, discomfort, leakage, or difficulty flushing.

Are there any alternatives?

You will be able to discuss the options for alternative procedures with the nurse or doctor who has given you this leaflet.

How can I prepare for PICC insertion?

You will be asked to arrive at the Venous Access Service at a pre-arranged time. One of the Nurse Practitioners will discuss the procedure with you.

Asking for your consent

It is important that you feel involved in decisions about your care. For some treatments, you will be asked to sign a consent form to say that you agree to have the treatment and understand what it involves. You can withdraw your consent at any time, even if you have said ‘yes’ previously. If you would like more details about our consent process, please ask for a copy of our policy.

What happens during PICC insertion?

The PICC insertion will be performed by specialist nurse practitioners who are trained to perform the procedure. The procedure is usually done in the Venous Access procedure room located in the x-ray department in St James’ wing. Alternatively, it can be performed at the patient’s bed if they are already in hospital.

Prior to the insertion of the PICC, the upper arms are assessed using an ultrasound machine for the suitability of the veins. The skin in the area is cleaned with a strong antiseptic and then this area is numbed with a small amount of local anaesthetic. This will be injected under the surface of the skin. When the skin is completely numb, the nurse practitioner will start the procedure.

At the end of the procedure the position of the tip of the catheter is confirmed using an electrocardiogram (ECG) machine or a chest x-ray.

Following PICC insertion, the line will be held securely in place by a needle-free securement device. It will then be dressed with a splash-proof transparent dressing.

The procedure usually takes about 20-30 minutes provided there are no complications encountered. Sometimes there may be difficulty in passing the needle into the vein or passing the PICC through the vein. However please allow up to two hours for the appointment. This will give the nurse practitioner time to explain everything as well as to set-up the necessary equipment for the procedure.

Will I feel any pain?

When the local anaesthetic is injected, it stings but this soon passes and the skin becomes numb.

What happens after PICC insertion?

Once the position of the PICC has been confirmed it can be used immediately.

How do I care for my PICC?

Dressing

It is important that the dressing remains clean and dry. The dressing should be changed every seven days. Should the dressing become wet from water or perspiration or becomes soiled or loose, it must be changed. It is not advisable to submerge the PICC under water, so deep bathing and swimming are not possible whilst the PICC is in place.

Aftercare / Lifestyle

A PICC is a low maintenance device and should not interfere with daily activities. The arm with the PICC line should be used normally to maintain good blood circulation in that arm. However, strenuous work, lifting heavy objects or repetitive motion should all be avoided.

Blood pressure readings taken on the arm with the PICC should be avoided.

The PICC will be flushed with saline solution before and after use to prevent the line from becoming blocked. For outpatients whose PICC is only used for chemotherapy, catheter flushing is done once a week. This may be done by the district nurses or by the hospital nurses when you come into your day unit.

You will need to inspect the site daily for any abnormality such as swelling, redness, leakage or pain. If any complications are noted, please report them to a healthcare professional immediately.

The PICC dressing must remain dry to help prevent infection and have to change weekly. You may shower but the PICC should be covered with a waterproof covering or shower sleeve to help keep the dressing dry. Deep bathing and swimming are not advised whilst the PICC line is in place.

Do not use scissors, razors, nail polish or liquid tape remover near the line.

You can continue working if you are medically fit and your doctor is happy for you to do so. You can also drive if you feel fit and able to.

How is my PICC removed?

When the PICC is no longer required it is removed by a nurse or doctor. After removing the catheter and any securement device, gentle pressure is applied at the insertion site with sterile gauze to prevent further bleeding. When the bleeding stops, a sterile dressing is applied. The dressing should remain on for approximately 24 hours.

Contact us

If you have any questions or concerns about PICC insertion, please contact the relevant department below:

Central Venous Access Office:	020 8725 3153 Monday to Friday (except Bank Holidays)
Ruth Myles Unit:	020 8725 2442 (Outside office hours)
Trevor Howell Day Unit	020 8725 0519 (Office hours)
Trevor Howell Ward	020 8725 1082/3 (Outside office hours)
OPAT Services	020 8725 4844/5299 (Office hours)
Nutrition Nurse	020 8725 2280 (Office hours)

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit www.stgeorges.nhs.uk

Additional services

Patient Advice and Liaison Service (PALS)

PALS can offer you on-the-spot advice and information when you have comments or concerns about our services or the care you have received. You can visit the PALS office between 9.30am and 4.30pm, Monday to Friday in the main corridor between Grosvenor and Lanesborough wings (near the lift foyer).
Tel: 020 8725 2453 **Email:** pals@stgeorges.nhs.uk

NHS Choices

NHS Choices provides online information and guidance on all aspects of health and healthcare, to help you make decisions about your health. **Web:** www.nhs.uk

NHS 111

You can call 111 when you need medical help fast but it's not a 999 emergency. NHS 111 is available 24 hours a day, 365 days a year. Calls are free from landlines and mobile phones. **Tel:** 111

AccessAble

You can download accessibility guides for all our services by searching ‘St George’s Hospital’ on the AccessAble website (www.accessable.co.uk). The guides are designed to ensure everyone – including those with accessibility needs – can access our hospital and community sites with confidence.

Reference: RAD_PICC_06 **Published:** November 26 **Review date:** November 28