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PICC lines (peripherally inserted central catheters)

This information is about peripherally inserted central catheters, which are often called PICC lines. They are used to give chemotherapy treatment and/or other medicines.

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We hope this information answers your questions. If you have any further questions, you can ask your doctor or nurse at the hospital where you are having your treatment.

PICC lines

A PICC line is a long, thin, flexible tube known as a catheter. It is inserted into one of the large veins of the arm near the bend of the elbow. It is then threaded into the vein until the tip sits in a large vein just above the heart.

The space in the middle of the line is called the lumen. Sometimes there are two or three lumens, known as double or triple lumens. This allows different treatments to be given at the same time.

At the end of the tube outside the body, each lumen has a special cap or bung that can be attached to a drip or syringe. Sometimes there is a clamp to keep the line closed when it isn't in use.

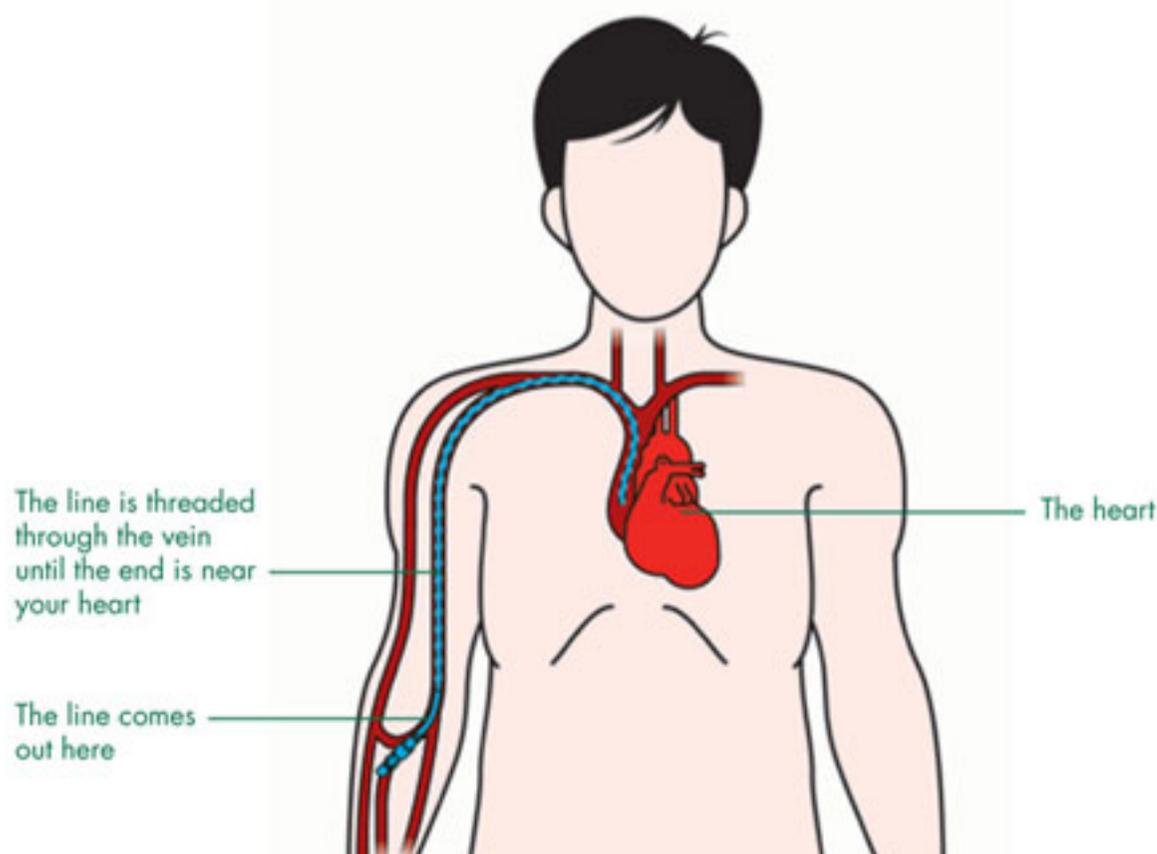


Illustration of a PICC line

What PICC lines are used for

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 to pass liquid food into the vein 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 weeks or months.

A PICC line may be helpful if doctors and nurses find it difficult to get needles into your veins, or if the walls of your veins have been hardened by previous chemotherapy treatment. A PICC line is also helpful if you don't like needles.

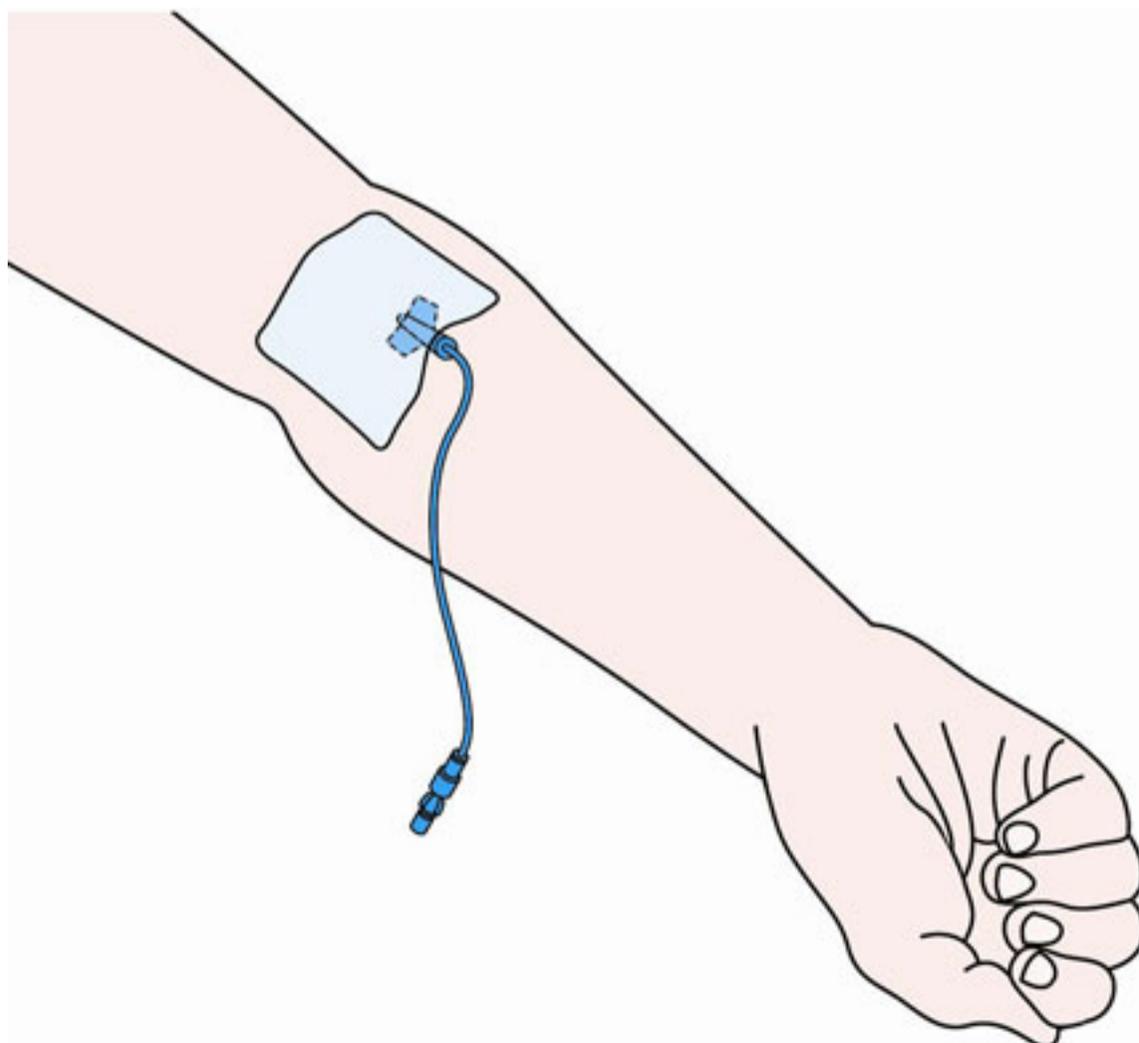
How the PICC line is put in

Your PICC line will be put in by a specially trained nurse or doctor in an outpatient department or on the ward. It will be put in using a local anaesthetic.

First the skin in the area is cleaned with antiseptic solution. Then this area is numbed with an anaesthetic cream or injection, so you don't feel pain while the PICC line is being put in.

When the skin is completely numb, a needle will be inserted and then removed. While the needle is being removed, the PICC line will be threaded through it into a large vein that leads to your heart. This shouldn't take long and is usually painless. The PICC line will be held securely in place by a transparent dressing.

You will then have a chest x-ray to check that the end of the tube is in the correct position.



Close-up of a PICC line

Possible problems when putting in the PICC line

If your veins are small, it may be difficult to locate a suitable vein to put the PICC line in. The doctor or nurse may use an ultrasound scan to help them locate the best vein to use. The ultrasound uses sound waves to produce a picture on a monitor showing the veins in your arm. The scan is painless and involves a small microphone-like device being rubbed gently over your arm.

Sometimes it can be difficult to thread the PICC line up the vein towards the heart. If this happens, it's usually possible to try again using a different vein.

Sometimes the PICC line seems to go in easily, but the x-ray shows it isn't in the right place. If this happens, the nurse or doctor may be able to reposition it. If this isn't successful it will be taken out and replaced.

Care of your PICC line

When the line isn't being used, there is a slight risk that it may become blocked. To stop this happening, a small amount of fluid is flushed into the line using a syringe. This is done regularly – usually once a week. The dressing will also need to be changed each week to reduce the risk of infection.

As it's difficult to do this yourself with one hand, the nurses at the hospital may do it for you or arrange for a district nurse to visit you at home. A relative, partner or friend can also be taught to do this if they are happy to.

When you're at home, it's safe for you to have a shower or bath with your PICC line in place. Your nurse can give you waterproof covers to stop the line getting wet.

Possible problems with PICC lines

Infection

It is possible for an infection to develop inside the line or in the area where it goes into the vein.

You should contact your hospital doctor or nurse if:

- the area becomes red, swollen or painful
- you notice discoloured fluid coming from the area
- you develop a high temperature (fever).

If an infection develops, you will be given antibiotics. If these don't clear the infection, or if the infection is serious, the line may be removed.

Blood clots

It is possible for a blood clot (thrombosis) to form in your vein at the tip of the line, and you may be given medication to help prevent this. If a clot does form, you will be given some medication to dissolve it and your line may have to be removed.

Signs of a blood clot around the PICC line include swelling, redness or tenderness in the arm, chest area, or up into the neck (on the same side as the PICC line).

Air in the line

No air can be allowed to get into your PICC line. Not all PICC lines have clamps. Some lines have caps at the end of the lumens that prevent air from entering the line. If your PICC line has a clamp, this should always be closed when the line isn't in use. The line must not be left unclamped when the caps aren't in place.

The line may come out

To avoid the line coming out by accident, it should always be taped or covered with a dressing. If the dressing holding the PICC line in place comes loose, get it replaced as soon as possible.

Break or cut in the PICC line

It is important that the PICC line is not cut or split. Do not use scissors near the PICC line. It is uncommon to get a cut or split in the line, but in the unlikely event of this happening, contact your hospital immediately. The line may need to be removed if it can't be repaired while still in place.

How the PICC line is removed

When you no longer need a PICC line, it will be taken out. A nurse will usually do this for you in an outpatient department. It will be gently pulled out. This is a painless procedure that takes only a few minutes.

References and thanks

This section has been compiled using information from a number of reliable sources, including:

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Thanks

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