

Having a central line

A Guide



Most donors are able to give stem cells through the veins in their arms.

In a small number of cases (less than 2% of men and 10% of women) a peripheral blood stem cell (PBSC) donation may need to be done using a central line instead.

This booklet explains:

- What is a central line?
- Why might a central line be needed?
- How is a central line placed?
- Risks and side effects.

If you have any questions or concerns at any point, your **Donor Provision Coordinator** is here to help.

“I was quite nervous about having a central line, but it turned out to be straightforward and painless. I felt reassured throughout and had no problems afterwards.”

HANNAH

STEM CELL DONOR

What is a central line?

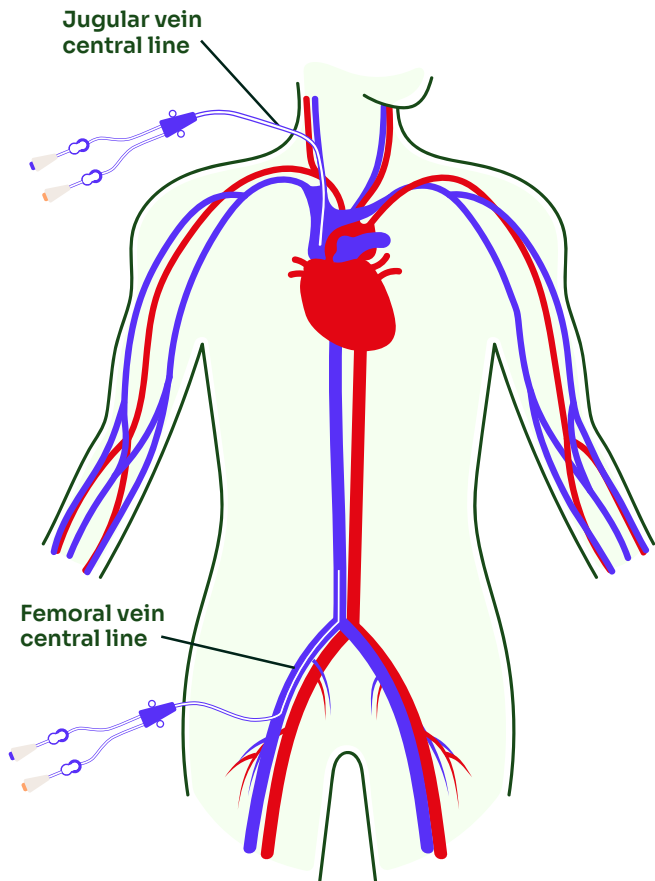
A central line – also known as a central venous catheter (CVC) – is a temporary, soft plastic tube.

It is inserted into a large vein in your groin (femoral vein) or neck (jugular vein) – the exact location depends on which collection centre you visit.

Central lines are like the cannula you'd have in your arm, but bigger.

Please see a diagram of where central lines are inserted **on the next page**.

Central line insertion points



Why might a central line be needed?

Sometimes the veins in your arms are too small or fragile for the needles used in stem cell collection.

If that happens, a larger and deeper vein in your groin or neck can be used instead. A central line inserted into one of these veins will allow for a better flow of blood, making the collection process more efficient.

Can you reduce the chances of needing a central line?

The best thing you can do is to stay well hydrated in the days leading up to your donation by drinking plenty of fluids, as this can help keep your veins plump and easier to find. When your body has enough fluid, your veins are softer and more flexible, which makes it easier to place the cannula and may reduce the chance of needing a central line.

Keeping warm, especially in colder weather, can also help, as veins are generally more visible and easier to access when your body is warm.

When would you find out?

You may find out at two points:

- **At your medical:** if your veins look too small, the doctor or nurse will explain that you may need a central line.
- **On the day of your donation:** your veins will be checked again. If they are smaller than expected, or if collection through the arms isn't working, a central line may be needed.

In either case, the doctor will explain what's involved, answer your questions, and ask you to sign a consent form before anything goes ahead.

Are there alternatives?

If you can't donate through the veins in your arms, the only way to continue with a PBSC donation is through a central line.

You always have the option to say no. If you choose to not have a central line, your donation would not go ahead.

How is a central line placed?

Who places it?

An experienced doctor such as a radiologist, anaesthetist, haematologist or specially trained senior nurse will place the central line. A health care professional will usually be present with you during the procedure to provide support. They will use either ultrasound or X-ray guidance to position the central line accurately. The procedure is quick and usually takes less than 30 minutes.



When and where does it happen?

The central line is usually inserted on the morning of your first donation day. If the central line was unplanned, it will be inserted when needed.

- Sometimes it can be done on the ward
- Other times you may be taken to the radiology department.

You will be asked about any allergies, medications or bleeding problems. The doctor will explain the procedure and ask you to sign a consent form if you haven't already done so.

How do I prepare?

No special preparation is needed. You'll change into a hospital gown before the central line is placed.

If you are told at your medical that you may need a central line, it's a good idea to bring a change of clothes, toiletries and regular medications you take, just in case you need to stay overnight.



Is it uncomfortable?

The area will be numbed with local anaesthetic. You may feel a brief stinging sensation when it's given, but this shouldn't last long. After that, you shouldn't feel pain, though you may notice some pressure or mild discomfort.

For most people, the central line is comfortable during the day and night (if needed). You may notice it occasionally, especially when moving, changing positions, or pressing on the area.

How long does it stay in?

- If your donation takes one day, the central line is removed on the same day once your stem cells have been collected and counted.
- If you need a second day, the central line will stay in place overnight. You'll stay in hospital until your donation is complete.
- The central line will be removed at your collection centre. You'll be observed for 30–60 minutes to ensure any bleeding has stopped, then a dressing will be applied.
- After the central line is removed, the site may be slightly sore or bruised for a few days. You can usually resume normal activities, but it's best to avoid heavy lifting or strenuous exercise for a short period.

Risks and side effects

Although central lines are generally very safe, there are some risks. You'll be monitored closely during and after donation so that any problems can be dealt with quickly.

Common but usually minor risks include:

- local bleeding around the central line site
- the central line not working properly, which may mean it needs to be removed.

Less common but potentially serious risks include:

- infection at the site – signs include redness, warmth and tenderness
- infection in the blood stream – signs include fever, feeling unwell, nausea or vomiting
- a blood clot (thrombosis).

Serious complications are very rare:

- When the central line is placed in the neck, lung problems can sometimes happen. This is called a pneumothorax (air around the lungs) and happens in less than 4% of cases.
- Internal bleeding or air bubbles in the bloodstream (less than 0.5%).

Find out more about PBSC donations here:
anthonymolan.org/two-day-pbpc-donations



Further support

If you have any questions or concerns about central lines, please contact your **Donor Provision Coordinator**. We're here to help and support you at every step.

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If you have any questions or comments about this resource, or would like information on the evidence used to produce it, please email: donorprovision@anthonymolan.org

The information contained in this booklet is correct at the time of going to print (Dec 2025). We plan to review this publication within three years. For updates or the latest information, visit anthonymolan.org



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