



Stem Cell Donors
Australia



**Is donating
blood stem
cells or marrow
painful?**

One of the most common concerns about donating blood stem cells is whether it will be painful.

It's natural to feel apprehensive, but the good news is that bone marrow and peripheral blood stem cell (PBSC) donation procedures are relatively painless. This fact sheet will explain what to expect during each type of donation and how potential discomfort is managed.

Both donation procedures are supported by a skilled medical team dedicated to your safety and comfort. You'll have access to resources and support throughout the process, including counselling if you feel anxious, nervous or stressed.



1. Peripheral blood stem cell (PBSC) donation

PBSC donation is a non-surgical procedure similar to donating blood. It involves collecting stem cells from your bloodstream, which requires a process called apheresis. To push the stem cells out of your bone marrow into your bloodstream, you'll receive injections of a medication called G-CSF (granulocyte colony-stimulating factor) for several days before the donation.

a. Pain management during G-CSF injections.

Some donors experience temporary bone pain or muscle aches as a side effect of the injections. This is because the medication stimulates your bone marrow to produce more cells, which can cause 'flu-like symptoms.

- **Pain relief:** Over-the-counter pain relievers can effectively manage discomfort from the G-CSF injections. Your medical team may also recommend other strategies, such as warm baths or heating pads, to relieve aches.

b. Managing discomfort during apheresis.

During the apheresis procedure, blood is drawn out by a machine that collects your stem cells and returns the remaining blood to you. The process typically takes 4 to 6 hours.

- **Managing discomfort:** Some donors report feeling cold or experiencing a tingling sensation due to the anticoagulant used during apheresis. These sensations are usually mild and can be managed by staying warm with blankets, wearing socks and moving your hands and feet.

2. Bone marrow donation

Bone marrow donation involves the extraction of liquid marrow from your hip bones at the back of your pelvis. A special needle is involved, but the procedure is done under general anaesthetic, so you won't feel pain during the actual donation.

a. Pain management during the procedure.

- **General anaesthesia** means you'll be asleep and won't feel anything during the procedure.

b. Managing discomfort after the procedure

- **Post-procedure pain:** After the anaesthesia wears off, you may feel sore and stiff in your lower back for a few days. There might also be some colourful bruising to the back of your hips.
- **Pain Relief:** Over-the-counter pain relievers like paracetamol are usually effective in managing post-procedure pain. Your medical team will

provide you with specific recommendations based on your needs.

- **Rest and recovery:** Taking it easy for a few days after the procedure can help minimise discomfort. Most donors are back to their usual activities within a week. However, it can take up to three weeks to feel fully recovered.

While it's normal to be concerned about potential pain during donation, bone marrow and PBSC procedures are designed to minimise discomfort. With modern pain management techniques and a supportive medical team, most donors find the experience manageable and rewarding.