

# WHAT IS A STEM CELL TRANSPLANT AND HOW CAN IT TREAT MY CANCER?

Anything with the word 'transplant' in sounds serious but you won't face this procedure alone.

## What are stem cells?

Most cells have a specific job to do but stem cells are extremely clever. Think of them like the Ditto of the Pokémon world, the blank tile in a game of Scrabble, the Transformer of cancer treatment. Basically, they have the ability to transform into any other kind of cell in your body, be it muscle, blood or brain. Stem cells can divide to repair and replace damaged tissues – so doctors have been able to harness their ability and use them to treat cancer.

## Why do I need a transplant?

Doctors use stem cells to fight cancers which affect white blood cells, like leukaemia and lymphoma. They transplant – or transfer – them to a new part of the body to:

- Stop cancer coming back
- Treat cancer that has not responded to other treatment
- Destroy cancer cells that might still be there after you've had a stem cell transplant.

## What does the treatment involve?

You might hear different names for a stem cell transplant, which can get confusing. Some people call it a 'bone marrow transplant' or a 'peripheral blood stem cell transplant'. But they all mean the same thing.

Chemotherapy or radiotherapy destroy damaged blood cells and replace them with healthy stem cells. The healthy cells might be removed from your blood and saved before treatment, or taken from someone else.

## When would I have someone else's stem cells?

Your doctor may suggest using stem cells that come from someone else – a donor – as they don't contain cancer cells. Their healthy cells can attack and destroy the unhealthy blood cells in your body.

To increase the chance of the transplant being successful, your doctor will need to find a donor who has similar tissue to you. The person most likely to be a good match is a brother or sister, but some people can be given stem cells from a person not related to them.

## How is the transplant done?

You'll have an operation in hospital where three things happen:

1. Stem cells are collected from your blood or bone marrow, or from a donor's
2. You then have a high-dose treatment of chemotherapy or radiotherapy to destroy abnormal cells
3. After this treatment, the healthy stem cells are put into your body through a drip in your vein. These stem cells will produce new blood cells.

## How will I feel after the operation?

You might feel lonely as you'll need to stay in hospital for a few weeks, probably in your own room and with not many visitors. This is because your immune system will be low and you're more likely to get infections.

Staying in touch with family and friends by phone, email and social media can help you cope. Talking to other people who have been through the same treatment can also be helpful. If you're feeling low, contact CLIC Sargent, as we can help. You aren't alone and there is lots of help out there to help you get through it.

### Who are we?

CLIC Sargent is a charity dedicated to supporting young people like you. We help people with cancer aged 24 and under from diagnosis onwards. To find out more about how we can help you and your family, or for more information about living with cancer, visit [clicsargent.org.uk](https://clicsargent.org.uk)