

HAVING A SIBLING STEM CELL TRANSPLANT

WHAT'S IN THIS FACT SHEET?

This is a very brief guide to a type of stem cell or bone marrow transplant called a sibling transplant. We've provided some information here about who can have this type of transplant, how it works and the possible side effects. There's also information about where you can get support and further information if you need it.

What is a stem cell transplant?

You need healthy bone marrow and blood cells to live. If you have a condition that affects your bone marrow or blood, then a stem cell transplant could be the best treatment option. For some people, a transplant offers hope of a potential cure.

A bone marrow or stem cell transplant means that doctors will put new, healthy stem cells into your bloodstream. They make their way to your bone marrow, where they begin to grow and make healthy red blood cells, white blood cells and platelets.

A sibling transplant means that you will have a transplant using stem cells donated from your brother or sister. As long as their tissue type matches yours and they want to donate their stem cells the transplant can go ahead. Your brothers or sisters have a 30% chance of having the same tissue type as you. So, if you do have any siblings, your transplant team will normally ask if they would like to be tested first. For more information about this process read our leaflet, The Little Guide for Transplant Patients.

Who can have a sibling transplant?

A sibling transplant could be a treatment option for you if you have a brother or sister whose tissue type matches yours, and you have:

- A condition that means that you're not able to make your own healthy blood cells, for example aplastic anaemia, or a genetic condition affecting your blood, bone marrow or immune system.
- Blood cancer that is unlikely to be cured by having chemotherapy on its own.

WHAT WILL HAPPEN?

To your sibling:

If your brother or sister is a match and they want to donate, then your transplant centre will arrange a 'donor assessment' and medical screening to make sure they are fit and well enough to donate. This is

voluntary and it's up to them if they want to donate. You can find out more in our booklet, Donating to Your Relative. Unfortunately there are certain medical conditions that mean your sibling won't be able to donate to you. But there may be other options for finding you another donor.

If your sibling is a match and can donate, the next step will be to book a date for the donation and transplant process. Most siblings donate their stem cells in a process called peripheral blood stem cell collection (PBSC). Some donate their bone marrow, this means they will need to have a small operation and a general anaesthetic to minimise discomfort during the procedure.

To you:

You will have 'conditioning therapy' to prepare your bone marrow and immune system for the new cells. This is done with chemotherapy, sometimes in combination with a type of radiotherapy called total body irradiation (TBI). This also gets rid of any abnormal cells if you have them.

Then you receive the cells from your sibling to help you form a new immune system. Your new immune system recognises any remaining abnormal cells in your body as foreign and attacks them. You might hear this called graft versus tumour effect.

Having the transplant

Your transplant normally takes place the day after the conditioning therapy has finished.

The transplant itself involves having the donor stem cells passed as a fluid through a thin tube into your blood stream, a bit like having a blood transfusion. The transplant isn't painful and you'll be awake the whole time.

After your transplant, the stem cells make their way to your bone marrow. Once there they will start to grow into normal blood cells - this is called engraftment.

Recovery

You'll probably be in hospital for about three to four weeks and after your transplant you'll need to spend some time in protective isolation. You'll usually be in a single hospital room with precautions taken to protect you from infection. For more information about how to cope during this time see our booklet, *Dealing With Isolation*.

It usually takes at least six months to a year before your level of activity starts to get back to normal.

We have more information about having a transplant and recovery on our website:

anthonymolan.org/patientsandfamilies

Are there any specific side effects I should expect?

Having a transplant is a very intensive treatment that has a big physical and emotional impact on your life. Your transplant team will talk to you about the risk of complications and side effects so you can make the best decisions for your care.

Side effects of a sibling transplant vary from person to person and can be short term or long term. They are often caused by the conditioning therapy you have before the transplant, as well as the effect of the transplant itself.

Short term side effects include

- Need for blood and platelet transfusions
- Increased risk of infections

Where can I get more information and support?

If you or a loved one are affected by a stem cell or bone marrow transplant, there are many ways we can support you.

Need to talk?

The Patient Services team at Anthony Nolan are here for you. Call us on **0303 303 0303** or email patientinfo@anthonymolan.org

Get connected

Find support from other patients and their families by joining our patient and families forum at: anthonymolan.org/patients-and-families/anthonymolan-patients-families-forum

Find information

Our website has lots of helpful information about what it's like to go through a transplant. Download or order our booklets for free, and find links to other places

- Sore mouth (mucositis)
- Liver and kidney problems
- Tiredness
- Diarrhoea and feeling or being sick
- Loss of appetite

It's also common to feel a bit down or anxious during the early stages of recovery. Your transplant team will be monitoring you closely, and there will be treatment and support available.

Long term side effects

- Increased risk of infection
- Fatigue
- Graft versus host disease

When you've had a stem cell transplant, there are still small differences between your new developing immune system and other cells in your body. As a result, your growing immune system may harm some of the cells in your own body because it sees them as 'different'. This is called graft versus host disease. It can affect different parts of your body but commonly affects your skin, gut and liver. It can be short or long term; mild or severe. Your transplant team will be monitoring you closely for signs of GvHD and will offer you treatment that can help.

Find out more by reading our leaflet, *Life After Transplant: The Essential Guide to Graft versus Host Disease*. For more information on the long term effects of a transplant, visit our website or read our booklet, *The Seven Steps: The Next Steps*.

where you can get support at anthonymolan.org/patientinfo

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At Anthony Nolan we take great care to provide up to date and accurate facts about stem cell transplant. We hope the information here will help you to look after yourself. Each transplant centre will do things differently, so this booklet is just a general guide and isn't intended to replace advice from your doctor and transplant team. Please speak to your transplant team for more details about your own situation, as they will be able to give you personalised, specific advice.

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