

HAVING A HAPLOIDENTICAL STEM CELL TRANSPLANT

WHAT'S IN THIS FACTSHEET?

This is a brief guide to a type of stem cell transplant called a **haploidentical** (often shortened to 'haplo') 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?

Being diagnosed with **blood cancer** or a **blood disorder** can be a worrying time for both you and your loved ones. You need healthy bone marrow and blood cells to stay fit and well. If you have a condition that affects your bone marrow or blood, a stem cell transplant could be your best treatment option. For some people, it offers hope of a potential cure.

During your transplant, your medical team will put a matching donor's new, healthy stem cells into your bloodstream. After a period of time they will attach and grow within your bone marrow (called **engraftment**) and start to make new blood cells.

Haploidentical transplants

If you need a stem cell transplant, every effort is made to find you a matching donor. Matching is based on your human leukocyte antigen (HLA) tissue type. Your HLA is what makes you 'you' – it's part of your individual genetic make-up – but it's not always possible to find a perfect match.

One alternative is to have a **haploidentical transplant** using a family member whose tissue type is **half-matched** to yours. Children are always a half-match for their biological parents, and vice versa. Siblings have a 50% chance of being a half-match for each other.

This means you have a greater choice of potential donors – almost everyone has at least one potential haploidentical match in their family.

Who might need a haploidentical transplant?

Haploidentical transplants are becoming more common because they can help find a suitable donor quickly. Depending on the type of blood cancer or blood disorder you have, a haploidentical transplant could be an option if no perfectly matched donor is found. Your transplant team will make the best possible decision for your situation.

If you have a haploidentical transplant, there's

a higher risk of developing post-transplant complications because there are more mismatches between you and your donor. However, with advances in how transplants are performed and post-transplant care, they can be a good alternative if you don't have an HLA-matched donor.

Unfortunately, haploidentical transplants are not suitable for all patients and they aren't available in every hospital, so talk to your transplant team about your options.

WHAT WILL HAPPEN?

To your relative

If your relative is a suitable match and is happy to donate their stem cells, your transplant centre will arrange a 'donor assessment' and a medical check to make sure they're fit and well enough to donate.

You can find out more information in our booklet, [Donating to Your Relative](#).

To you

You will have 'conditioning therapy' to prepare your bone marrow and immune system for the new cells. It involves chemotherapy and sometimes a type of radiotherapy called total body irradiation (TBI). This also targets any remaining abnormal cells causing your condition.

Having the transplant

Your transplant will normally take place the day after conditioning therapy finishes. Your relative's stem cells will arrive as a liquid in a small bag. They will be passed through a thin tube into your bloodstream, just like a blood transfusion. The transplant isn't painful, and you'll be awake the whole time as there's no operation involved.

After a haploidentical transplant you might also have:

- more chemotherapy
- extra infusions of white blood cells called lymphocytes.

Your transplant team will talk to you about your individual treatment plan and you can always ask them questions if you're unsure.

Recovery

You'll probably be in hospital for about three to four weeks after your transplant. This time will be spent in protective isolation to give your immune system time to start rebuilding. You'll be in your own room with precautions in place to reduce the risk of picking up an infection. For more information about how to cope during this time, see our booklet, [Preparing for Hospital Isolation](#).

Once you're home, your recovery is likely to affect many aspects of your life. It could take 6 to 12 months before your activity levels start returning to normal. More information and advice can be found in our website's three recovery sections: [Body](#), [Mind](#) and [Life](#).

Are there any specific side effects I should expect?

Having a transplant is a very intensive treatment that will impact you both physically and mentally. 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 vary from person to person and can be short or long term. They are often caused by the conditioning therapy and the transplant itself.

Short-term side effects can include:

- increased risk of infections
- sore mouth (mucositis)
- liver and kidney problems
- tiredness

- diarrhoea and feeling or being sick
- loss of appetite
- hair loss.

You might feel down at times and find it difficult to cope with your situation. This is understandable. Your transplant team will be on hand to listen to your concerns and may be able to refer you to a therapist for further support. For more information on this, read our booklet, [Your Mental Health and Stem Cell Transplant](#).

Long-term side effects can include:

- increased risk of infection
- fatigue
- graft versus host disease (GvHD).

After your transplant, there will be small differences between your developing immune system and other cells in your body. As a result, your new immune system may harm your own cells because it sees them as 'different'. This is called graft versus host disease (GvHD). It can affect different parts of your body, but often your skin, gut and liver. It can be short or long term, and mild or severe. Your transplant team will monitor you closely for signs of GvHD and give you treatments to help control your immune system.

Find out more by reading our booklet, [An 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 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 in which we can support you.

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 further support at: [anthonynolan.org/patientinfo](https://www.anthonynolan.org/patientinfo)

Need to talk?

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

Get connected

Find support from other patients and their families by joining our Patient and Families Forum at: [anthonynolan.org/forum](https://www.anthonynolan.org/forum)

This publication was reviewed by: Dr Robert Danvy, Haematology Consultant, Research & Scientific Directorate, Anthony Nolan; Anthony Nolan Patients and Family Panel.

Author: Dr Jonathan Kay

Editor: Louise Jones

Designer: Valentina Ruggiero

© Anthony Nolan 2020 All rights reserved. No part of this publication may be reproduced or transmitted without permission in writing from Anthony Nolan. All trademarks and brand names referred to are acknowledged as belonging to their respective owners.

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

The information contained in this factsheet is correct at the time of being published (November 2020). We plan to review this publication within three years. For updates or the latest information, visit [anthonynolan.org](https://www.anthonynolan.org)

Anthony Nolan is a registered charity No 803716/SC038827

DOC5174 Version 002 (1120), 2421PA/1120

