

HAVING A CORD BLOOD TRANSPLANT

WHAT'S IN THIS FACT SHEET?

This is a very brief guide to a type of stem cell transplant called a cord blood 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 new blood cells.

What is a cord blood transplant?

If you need a transplant and you're having your stem cells donated from someone else, then one option is to use stem cells from umbilical cord blood. Cord blood transplants act as a great alternative when a sibling or matched unrelated donor is not available.

An umbilical cord connects a baby in the womb to the placenta. The placenta and umbilical cord are a rich source of stem cells. Once a baby has been safely delivered, the mother delivers the placenta, the cord is cut and the stem cells can be collected. This is a completely safe procedure for the mother and the baby.

The blood is taken to a cord bank, where it can be frozen for a number of years. When someone like you needs a transplant, we will test your tissue to see if it matches any of the cords in our bank and also search a worldwide cord blood bank registry. For more information about this process read our leaflet, The Little Guide for Transplant Patients.

When a suitable match for you is found it's available almost straightaway, as it has already been collected and stored. Getting an adult donor can be a longer process, as we have to run tests on the potential donor, and organise their donation.

If you're an adult then you may need to have two cord blood 'units' - from two different umbilical cords. But as cord blood does not need to be as well matched to your tissue type compared to other sources of stem cells, it can sometimes be easier to find suitable matches.

Who can have this kind of transplant?

A cord blood transplant could be a suitable treatment option for:

- 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?

Before the transplant

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 remaining abnormal cells if you have them.

Having the transplant

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

The transplant itself involves thawing out the cord blood cells. They will then be 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. The cord blood stem cells you receive form a new immune system that recognises any remaining cancer cells in your body and attacks them. You might hear this called graft versus tumour or graft versus leukaemia effect.

Recovery

It can take longer for 'engraftment' to happen because there are fewer stem cells in an umbilical cord, compared to when the stem cells come from an adult donor. This might mean you have a slightly longer stay in hospital after your transplant than someone who has

had an unrelated or sibling transplant, sometimes about one to two weeks longer.

You'll probably be in hospital for about four to six weeks in total 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 what happens when you have a transplant on our website anthohnolan.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 cord blood 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
- Sore mouth (mucositis)

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@anthohnolan.org

Get connected

Find support from other patients and their families by joining our online transplant community forum at anthohnolan.org/transplantcommunity

Find information

Our website has lots of helpful information about what it's like to go through a transplant. Download or order

- 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 include:

- Increased risk of infection
- Fatigue
- Graft versus host disease (GvHD)

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*.

our booklets for free, and find links to other places where you can get support at: anthohnolan.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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