If you are reading this leaflet, your sibling (brother or sister) has been diagnosed with a serious blood disorder, and your sibling’s doctors feel that a bone marrow or stem cell transplant may help him or her. In these cases it is usual for the doctors to ask the patient’s brothers and sisters if they would be willing to have blood samples taken to see if they might be suitable donors. This can be done here in the hospital where the patient is being treated or, if you live out of the area, at your GP practice.

It is important to read this leaflet and understand the implications of giving a blood sample before you make an appointment. If you attend to have the blood test we will assume that you are willing to be a donor for your sibling.

All information you give us will be treated in the strictest confidence.

What is the purpose of this blood test?

The blood test will tell us your tissue type, so that we can compare it with the tissue type of your sibling. Your sample of blood will only be compared with your sibling’s blood and will not be tested for compatibility with anyone else.

What is a tissue type?

We all have a set of proteins attached to our cells that we inherit from our parents, called HLA (Human Leukocyte Antigen). To be a donor you must share the same HLA code (tissue type) as the sibling you are donating to.
If the tissue types of the donor and the patient are carefully matched, this will give the greatest chance of the transplantation being successful. If the tissue types are identical this will reduce the risk of rejection.

Tissue types are inherited from our parents. These can combine in many different ways. This means that there are millions of different tissue types. However, if a person inherits the same HLA combination from their parents, they could be a suitable donor for a sibling.

It is important to point out that if you are the same blood group as your sibling, this does not mean that you will be a suitable match. In fact, you could have a different blood group to your brother or sister and still be a suitable match.

You have a 1 in 4 chance of being an identical match with one of your full siblings. However, if you are a half-sibling you will not be a match.

In some families, more than one sibling can be a suitable HLA match. Therefore, more than one sibling could be a suitable match to donate bone marrow or stem cells. In this situation, a decision will be made about who will be the most suitable donor to use.
Yes, there are strict rules that mean that if you have certain health problems you cannot be a donor - in that case it would not be worth having the test done.

**Do you have, or have you had:**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Yes / No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer of any form</td>
<td>Yes / No</td>
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<tr>
<td>Serious heart disease</td>
<td>Yes / No</td>
</tr>
<tr>
<td>A stroke</td>
<td>Yes / No</td>
</tr>
<tr>
<td>Epilepsy</td>
<td>Yes / No</td>
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<tr>
<td>Problems with your bone marrow or immune system</td>
<td>Yes / No</td>
</tr>
<tr>
<td>HIV, Hepatitis, TB infection</td>
<td>Yes / No</td>
</tr>
<tr>
<td>Are you currently being treated for any medical condition</td>
<td>Yes / No</td>
</tr>
<tr>
<td>Have you ever been told that you cannot give blood</td>
<td>Yes / No</td>
</tr>
</tbody>
</table>

If you have answered yes to any of the above questions, please ring the Transplant Nursing Team on 0116 258 5124 before you have the blood test.

We also want you to contact us if you have any doubts about donating your bone marrow or stem cells.
When do I get the results?

The results of the test are usually available after two to four weeks, and we will write to you with the results.

What if I am not a match?

If none of the patient’s siblings is a match, it may be possible for us to find an unrelated donor from international registers of potential donors.
If I am a match, what does the process of donation involve?

You will be invited to attend an appointment at the hospital. At this appointment you will be counselled to make sure that you are aware of the implications of donation to both you and your sibling. Once you have had all your questions answered you will be asked to sign a consent form to confirm that you are happy to proceed with the donation process.

Whilst you are at the clinic, we will assess your general health by performing a detailed examination and doing various tests, including blood tests, X-rays and an ECG (heart tracing).

Within 28 days of this appointment you will be asked to attend for a procedure to collect either your bone marrow or stem cells.

How are the bone marrow or stem cells collected?

There are two ways of collecting cells from adult donors: a peripheral blood stem cell collection or a bone marrow collection. Both procedures are done as day cases.

Peripheral stem cell collection

Before the stem cell collection takes place, you will be given five daily injections of a growth factor called G-CSF. This helps the stem cells to leave the bone marrow, where they are made, and circulate in the blood stream.

Stem cell collection is carried out using a cell-separating machine. The procedure takes between three and four hours.
Bone marrow collection

This is performed under a general anaesthetic (whilst you are asleep). The bone marrow will be taken from the back of your pelvis.

The above information about bone marrow and stem cell collection is very brief. If you would like more detailed information, please ask.

Regulation of transplantation

Transplantation is a carefully regulated process, and all transplant units must be licensed by the Human Tissue Authority (HTA). Further information is available on the HTA website:

www.hta.gov.uk
If you have any questions or concerns please contact us:

**Leicester Royal Infirmary**

**Hambleton Suite**
Mon - Fri 9am - 5pm
Tel: 0116 258 5124

**Bone Marrow Transplant Unit**
24 hours
Tel: 0116 258 5698
Sources of further information

Cancer Information Centre
Osborne Building
Leicester Royal Infirmary
LE1 5WW
Tel: 0116 258 6189
Mon - Fri 9.30am - 4.30pm

Coping With Cancer
Helen Webb House
35 Westleigh Road
Leicester LE3 0HH
Tel: 0116 223 0055
Website: www.c-w-c.org.uk

Macmillan Cancer Support
For information and support from cancer support specialists.
Freephone: 0808 808 00 00
Website: www.macmillan.org.uk

Leukaemia Care
Tel: (24 hours) 08088 010 444
Website: www.leukaemiacare.org.uk
We only test full brothers and sisters for compatibility. If any other members of the family want to look into joining the Bone Marrow Register, the following may be of interest:

**Anthony Nolan**
UK blood cancer charity and bone marrow register.
Website: www.anthonynolan.org
Tel: 0303 303 03 03

**DKMS**
Charity with a key mission to register blood stem cell donors.
Website: www.dkms.org.uk
Tel: 020 8747 5620
If you have any questions, write them down here to remind you what to ask.
If you would like this information in another language or format, please contact the service equality manager on 0116 250 2959