Understanding

Stem Cell Collection

Caring for people with cancer
Understanding stem cell collection

This short booklet has been written to help you understand more about collecting stem cells. It has been prepared and checked by cancer doctors and nurses, and the information is an agreed view on collecting stem cells.

If you are a patient, your doctor or nurse may wish to go through the booklet with you and mark sections that are important for you. You can also make a note below of the contact names and information you may need.

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<th>Contact</th>
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<td>Haematology nurse specialist</td>
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<td>Family doctor (GP)</td>
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<td>Haematologist</td>
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<td>Medical oncologist</td>
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<td>Medical social worker</td>
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If you like, you can also add:

Your name

Address
This booklet has been produced by Nursing Services of the Irish Cancer Society and the haematology staff of St James’s Hospital, Dublin to meet the need for improved communication, information and support for cancer patients and their families throughout diagnosis and treatment. We would like to thank all those patients, families and professionals whose support and advice made this publication possible.

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Introduction

This booklet has been written to help you and your family understand how stem cells are moved out of your bone marrow and collected. The medical name for this is peripheral blood stem mobilisation and collection or harvest. Naturally, you and those close to you might feel daunted at this process and it can be a stressful time.

The booklet aims to help and guide you through each stage of this process. No doubt you will have many questions to ask and concerns of your own. We hope this booklet answers some of those questions and encourages you to discuss them and others with your doctors and nurses. They are more than willing to answer any queries you may have, so just ask. At the end of the booklet, you will find a list of websites and special groups to help and support you at this time.

If you are due to have a stem cell transplant in the near future using your stem cells, there is a useful booklet available. It is called Understanding Autologous Stem Cell Transplants. Call the National Cancer Helpline on 1800 200 700 for a free copy.

Reading this booklet

Remember you do not need to know everything about collecting stem cells straight away. First read a section about a particular item as it happens. Then when you feel relaxed and want to know more, read another section.

If you do not understand something that has been written, discuss it with your doctor or nurse. You can also call the National Cancer Helpline on Freefone 1800 200 700. It is open Monday to Thursday 9am–7pm and Friday 9am–5pm. Or if you wish, you can also visit a Daffodil Centre if one is located in your hospital. See page 20 for more about Daffodil Centres.

About stem cells

What are stem cells?

Stem cells are the cells that will be collected from you. These cells are found in your bone marrow. Bone marrow is a spongy tissue found within bone and in particular within your hip bones. Bone marrow makes all of your body’s blood cells. These are:

- **Red cells** – to carry oxygen
- **White cells** – to help fight infection
- **Platelets** – to help blood clot and prevent bleeding

Stem cells are blood cells that are immature or at the earliest stage of development. They can develop into mature red cells, white cells and platelets.

At one stage the only way to get these stem cells was to gather or harvest the cells directly from the bone marrow. But it involved having a general anaesthetic. Now it is possible to move or mobilise these cells into your veins and arteries so they can be collected in your bloodstream. This kind of collection is known as leucapheresis or peripheral blood stem cell harvest (PBSCH).
Why must my stem cells be collected?

Once your stem cells are collected, they will be frozen (cryopreserved) and used at a later date. Sometimes your collected cells may simply be stored in case you ever need them, or they can be re-infused as part of your treatment plan later. Re-infusing stem cells is known by different names: as an autologous peripheral blood stem cell transplant, autograft or stem cell rescue. For more information, see the booklet Understanding Autologous Stem Cell Transplant. Call the National Cancer Helpline on 1800 200 700 for a free copy.

Having your stem cells in storage allows your doctor to increase the dose of chemotherapy to treat your condition. Because chemotherapy cannot tell the difference between normal and diseased cells, your bone marrow cells will also be affected by the chemotherapy drugs. As a result, the red cell count, white cell count and platelet count in your blood will drop significantly. This will make you prone to infection, bleeding and anaemia. If your stem cells are given back to you after this high dose of chemotherapy, they will find their way back into your bone marrow and start to make new blood cells again. Quite simply, the stem cells will rescue you from the high dose chemotherapy. It will allow your bone marrow to work again, reducing the risk of serious infection and severe bleeding.

What tests are needed before collecting the stem cells?

Before your stem cells are collected, you will be asked to attend the haematology clinic for a number of reasons. First, you will meet the haematology team including the doctors, nurses and transplant co-ordinators. This visit also gives you a chance to ask questions and get to know the haematology clinic. You must bring along a partner or family member when you visit. On the day, you will meet with your haematologist and the transplant co-ordinator, who is the nurse organising your care. Next you will be introduced to the team of nurses who will take care of you when your cells are being harvested. They are known as the apheresis team. You will also get a chance to ask any questions and get any concerns cleared up. All the staff will explain in detail what is involved. You will be asked to sign a consent form allowing them to go ahead and organise the moving and harvesting of the stem cells.

Blood tests

Some blood tests will be taken to make sure you are medically fit for the stem cells to be collected. These blood tests will check:

- Your kidney, liver and bone function
- A full blood count
- Your blood group
- Your clotting levels
- The presence of viruses, for example, HIV, hepatitis A, B, C and syphilis

These tests are important and must be done for all patients or donors of blood, tissues or organs. Your doctor or transplant co-ordinator will let you know if you have any abnormal results. If the viral test is positive, counselling can be arranged through the infectious disease team.

Other tests

You will also be weighed and your blood pressure and pulse recorded as a baseline. Because your veins will be used to collect the stem cells, a nurse will check if they are suitable for the type of needles put in to collect the cells. Other tests may be needed depending on your condition. Your doctor or transplant co-ordinator will explain these in more detail on the day of your visit.
How are the stem cells moved into my bloodstream?

There are several ways that bone marrow cells can be moved into your bloodstream to allow them to be collected. The method will be decided by your doctor, depending on your condition. The most common ways are:

- Giving growth factors (G-CSF)
- Giving chemotherapy and growth factors (G-CSF)

**Growth factors (G-CSF)**

Growth factors are hormones that occur naturally and can help to control how blood cells are made. The most common one is G-CSF, which stands for granulocyte colony-stimulating factor. When given by injection, G-CSF causes blood stem cells to be released from your bone marrow into your bloodstream. These stem cells can then be collected (harvested) in your bloodstream. G-CSF is known under several names, for example Neupogen®.

The growth factors are given as a daily injection under your skin for several days. This is done until the desired amount of stem cells have been collected. It is important that the injection is given in the evening at roughly the same time each day. Remember the injections must be given every day and only stopped when the transplant team tells you to do so. The haematology team will discuss how to give the injection with you. A family member, partner, public health nurse or regional hospital can be organised to give the injections. If you wish, you can also give the injections by yourself.

**Side-effects:** The most common side-effect of these injections is bone pain. This usually happens in the chest and back area and is a spasmodic type of pain. The pain is usually relieved by simple painkillers such as paracetamol. Take these as soon as you start to feel any pain and continue to take them regularly until your harvest is complete. In some cases these painkillers may not relieve the symptom. If this happens, the best advice is to contact your hospital.

Other side-effects include flu-like symptoms, tiredness, headache, sleeplessness and irritability. A slight tingling sensation and occasionally redness may occur at the injection site and bruising may also occur. Sometimes G-CSF can cause allergic reactions, which can be easily treated.

**Chemotherapy and growth factors (G-CSF)**

A course of chemotherapy may be given to you before starting the G-CSF injections. This is given both to treat your condition and to increase the number of stem cells mobilised. Some chemotherapy courses may be given as an inpatient, while others are given as an outpatient. Your doctors and nurses will discuss with you the chemotherapy you might receive.

When are the stem cells collected?

The ideal time to collect stem cells is when your white blood cells begin to rise rapidly. This can be known by checking your full blood count regularly. Blood must also be tested for a special protein called the CD34 level. This level reads the number of stem cells circulating in your bloodstream. Based on this result, the transplant team will know when your stem cells are ready to be collected.

When checking this level, blood samples need to be taken for a number of consecutive days to find out the ideal day to start collecting the stem cells. Your nurse will let you know at what time this blood sample will be taken each day. Remember there is a chance that your blood count may not ever rise to the level needed to collect the stem cells. There is also the chance that the number of stem cells harvested is not enough to allow for future use. If this happens, other options will be discussed with you.
Collecting stem cells

How are the stem cells collected?

Collecting the stem cells is called harvesting. The stem cells are collected using a machine called a cell separator. It is also known as an apheresis machine. This machine contains a centrifuge that spins your blood at high speed. You will notice on the day of your harvest that the machine makes a low humming noise like a washing machine spinning. The spinning allows your blood to separate into layers.

The layer with the stem cells is selected and collected into a sterile bag by the machine. Also, the machine will remove some of your plasma each day, usually about 400mls. Plasma is the name given to the pale yellow liquid part of blood minus the blood cells. All of the remaining blood is then returned to you. The machine processes two to three times the amount of blood in your body. But at any one time only about 200mls of blood is spinning in the centrifuge. All the kits used in the machine containing the lines and bag are disposable, so no blood actually comes in contact with the inside of the machine.

Putting in needles

To collect the stem cells, a special needle must be put in the bend of both your arms. One of these needles helps to take the blood from you and into the machine. The other is to allow the blood that is no longer needed to be returned to you.

During the collection, you cannot move your arms freely and will need to stay in the one place. This is to prevent the needles moving or dislodging. But your arms will be placed in a comfortable, supported
position beforehand. Once the stem cells are collected the needles will be removed. You may notice some bruising and tenderness around the needle area but this should clear up within a few days.

If your veins are too small or not suitable, you may need to have a temporary line put into a large vein. This line or tube is called a catheter. The vein can be located in your neck, upper chest or groin. A local anaesthetic is given first and X-rays are taken to guide the catheter into your vein. As this is like minor surgery, you will need to sign a consent form. But any risks will be explained to you beforehand. The catheter will be left in place until all the stem cells are collected and will then be removed.

Again, once removed, the area around the catheter may be tender and may also bruise. But this should clear up within a few days. Some catheters can be left in place to allow for any further chemotherapy and your transplant. The transplant co-ordinator will discuss this with you.

Will I feel anything while connected to the machine?

Once you are connected to the machine you should not feel anything. Your nurse will remain with you for the entire time. Certain side-effects can occur and are mainly due to:

- A change in the amount of blood in your system
- The anticoagulant used

The side-effects can include:

- Feeling light-headed
- Feeling dizzy

- Nausea
- A sour taste in your mouth
- Tingling around your lips, fingertips and other sensitive areas
- Bleeding or bruising
- Tiredness

**Amount of blood in your system**

Usually about 200mls of blood is spinning through the machine at any one time. Having slightly less blood in your system may cause you to feel light-headed, dizzy or nauseated. If these side-effects occur, do tell your nurse as they can be easily treated.

**Anticoagulant used**

Once blood leaves your body it will clot in a matter of time. To prevent the blood in the machine from clotting, an anti-clotting drug known as ACDA is added. As blood is returned to you so too will some of this anticoagulant. The anticoagulant may drop the calcium level in your body causing a sour or metallic taste in your mouth. You might also notice some tingling around your lips, fingertips and other areas with sensitive nerve endings. Other symptoms include nausea or feeling cold and shivery. These can be treated simply with a glass of milk or a calcium tablet or drip. Again please let the staff caring for you know if this symptom occurs.

**Bleeding or bruising**

Some red cells and platelets may be unavoidably removed when collecting the stem cells. This may reduce your platelet count. As a result, you may be more prone to bleeding or bruising. Within days the platelets will rise to the normal level naturally, but if your count is very low you may need a platelet transfusion. This will be discussed with you in more detail if needed.

**Tiredness**

Afterwards you will probably feel quite tired, but again this should ease off once you have rested.
How long does the collection take?

In general each session takes around 4–5 hours. Afterwards you will be asked to stay on for about half an hour to make sure you are feeling well. During this time you will be offered a light diet.

What happens once the cells are collected?

Once the collection is over, the bag of stem cells will be removed from the machine. About 200–300mls of stem cells are collected per day. You will get the chance to see the stem cells if you wish. From there the cells are brought to the laboratory where the number of stem cells in the bag are counted. The stem cells are then mixed with a preservative called DMSO and frozen to –196°C until needed. This freezing is known as cryopreservation.

Once frozen, the stem cells can be stored for several years. On the evening of your harvest, one of the haematology team will contact you to tell you if a second or third day of harvesting will be needed. This routine will be the same on each day of harvesting. No more than 3 days of harvesting will be done. If you need another day of harvesting, then it is important to keep taking your growth factor (G-CSF) injections.

You will need your blood count checked a week after the collection. Do ask your transplant co-ordinator about it and they will organise it for you.

Is there anything I can do to help?

Yes! There are many things that you can do to help.

Hints & Tips

- Do not take aspirin or tablets containing aspirin 2 weeks before your stem cell collection. This will be discussed with you by the transplant team.
- Make sure you have a milky breakfast on the morning(s) of your harvest to boost your calcium level. If you prefer, you can eat yoghurt or cheese instead.
- Wear or bring a short-sleeved top to allow easy access to your arms.
- If the day is cold, wrap up well. Keeping warm will help enlarge your veins and make it easier to put in the needles.
- Use the bathroom before you are connected to the machine. As you will be 3 to 4 hours on the machine, it may be difficult to use the toilet.
- Do bring a companion along. Often the time on the machine can be quite boring. Feel free to bring a Walkman or iPod to listen to, if you wish. It is best not to bring reading materials as your movements will be restricted. Most units have a television for your entertainment.
- Do not drive after the harvesting. It is a good idea to have someone collect you afterwards.
- Avoid strenuous activity on the days of harvesting. Do rest for the evening.
- Avoid smoking for at least 2 hours after the harvest.
- You can return to work the day after your last harvest if you wish.
Coping and emotions

How can I cope with my feelings about stem cell collection?

You may have a range of feelings and emotions when preparing for a stem cell collection. You might worry about what it will involve, will it hurt, or will it work. The idea of being connected to a machine might scare you or seeing blood might make you feel squeamish. The whole process may even overwhelm you. It is normal to have these kinds of worries at this time. If you are due to have a stem cell transplant in the near future, you might also be nervous about that. Do talk to your nurse or doctor if you are feeling anxious and concerned. They will give you all the information you need and reassure you.

It can help to talk about your feelings to those close to you as well or to someone who is a good listener. Do make a list of any concerns you have and discuss them with your doctor or nurse.

Cancer diagnosis

Your emotions might also be linked to your cancer diagnosis and if your treatment is hard going. If you are finding it particularly hard to cope, do seek professional advice early. A useful booklet called Understanding the Emotional Effects of Cancer has been written for people with cancer and is available from the Irish Cancer Society. Call the National Cancer Helpline on 1800 200 700 for a free copy.

The Helpline can also put you in touch with cancer support centres and counsellors if you feel that would help. Or if you wish, you can visit a Daffodil Centre if one is located in your hospital.
Support resources

Contact details of stem cell transplant centres

St James’s Hospital, Dublin
Ms Liz Higgins, Transplant Co-ordinator.
St James’s Hospital
James’s Street
Dublin 8
Tel: 01 410 3000 Bleep 187
Mobile: 087 787 5089
Email: ehiggins@stjames.ie
St James’s Hospital:
Denis Burkitt Unit (inpatient ward):
Please use at weekends and out of hours.
Haematology Day Ward:
01 410 3000
01 416 2271 / 01 416 2265
01 410 3970 / 01 416 2168

St Vincent’s University Hospital, Dublin
Ms Joy Lewis / Ms Michelle Connell, Haematology Clinical Nurse Specialists.
St Vincent’s University Hospital
Elm Park
Dublin 4
Direct Tel: 01 221 4373
Tel: 01 221 4000 Bleep 656
Email: j.lewis@st-vincents.ie / m.connell2@st-vincents.ie
Main hospital:
St Anne’s Ward/Haematology Day Ward:
01 221 4000
01 221 6692 / 221 6687

University Hospital Galway
The service is co-ordinated by medical consultants and clinical nurse specialists.
University Hospital Galway
Newcastle Road
Galway
Tel: 091 524 222 Bleep 214 / 730
St Joseph’s Ward:
St Patrick’s Ward:
Haematology Day Ward:
091 544 430
091 544 759
091 544 610
Irish Cancer Society services

The Irish Cancer Society funds a range of support services that provide care and support for people with cancer at home and in hospital.

- Cancer Information Service (CIS)
- Daffodil Centres
- Cancer support groups
- Survivors Supporting Survivors
- Counselling
- Night nursing
- Oncology liaison nurses
- Cancer information booklets
- Financial support
- Care to Drive transport project

Cancer Information Service (CIS)

The Society provides a Cancer Information Service with a wide range of services. The National Cancer Helpline 1800 200 700 is a freephone service that gives confidential information, support and guidance to people concerned about cancer. It is staffed by specialist cancer nurses who have access to the most up-to-date facts on cancer-related issues. These include prevention of cancer, risk factors, screening, dealing with a cancer diagnosis, different treatments, counselling and other support services. The helpline can also put you in contact with the various support groups that are available. The helpline is open Monday to Thursday from 9am to 7pm, and every Friday from 9am to 5pm.

- All queries or concerns about cancer can be emailed to the CIS at helpline@irishcancer.ie
- Message Board is a discussion space on our website (www.cancer.ie) to share your stories, ideas and advice with others.
- The CancerChat service is a live chatroom with a link to a Cancer Information Service nurse.
- Find us on Facebook and follow us on Twitter (@IrishCancerSoc).

Daffodil Centres

Daffodil Centres are located in a number of Irish hospitals. They have been set up by the Irish Cancer Society in partnership with each hospital and are an extension of the Cancer Information Service. They are generally found near the main entrance of the hospital and are open during the day. Staffed by a specialist nurse and trained volunteers, they provide a range of information, advice, help and support on all aspects of cancer, free of charge.

Daffodil Centres give you a chance to talk in confidence and be listened to and heard. If you are concerned about cancer, diagnosed with cancer or caring for someone with cancer, you are welcome to visit the centre. Do check to see if there is a Daffodil Centre in your hospital.

Cancer support groups

The Irish Cancer Society funds a range of support groups set up to support you and your family at time of diagnosis, throughout treatment and afterwards. See pages 24–28 for more details.

Survivors Supporting Survivors

Being diagnosed with cancer can be one of the hardest situations to face in your lifetime. Survivors Supporting Survivors is a one-to-one support programme run by the Irish Cancer Society. It provides emotional and practical support to newly diagnosed patients. It can provide you and your relatives with information, advice and emotional support from time of diagnosis and for as long as is needed. All the volunteers have had a personal experience of cancer and understand the emotional and physical impacts of the disease. They are carefully selected after recovery and are trained to provide information and reassurance. The service is provided on a one-to-one basis and is confidential. If you would like to make contact with a volunteer, call the National Cancer Helpline on 1800 200 700.

Counselling

Coping with a diagnosis of cancer can be very stressful at times. Sometimes it can be hard for you and your family to come to terms with your illness. You might also find it difficult to talk to a close friend or relative. In this case, counselling can give you emotional support in a safe and confidential environment. Call the helpline 1800 200 700 to find out about counselling services provided by the Irish Cancer Society and services available in your area.
Night nursing
The Society can provide a night nurse, free of charge, for up to 10 nights if you need end-of-life care at home. The night nurse can also give practical support and reassurance to your family. You can find out more about this service from your GP, local public health nurse, a member of the homecare team or the palliative care services at the hospital. Homecare nurses can offer advice on pain control and managing other symptoms.

Oncology liaison nurses
The Society funds some oncology liaison nurses who can give you and your family information as well as emotional and practical support. Oncology liaison nurses work as part of the hospital team in specialist cancer centres.

Cancer information booklets
These booklets provide information on all aspects of cancer and its treatment. They also offer practical advice on learning how to cope with your illness. The booklets are available free of charge from the Irish Cancer Society by contacting 1800 200 700. They can also be picked up at a Daffodil Centre or downloaded from www.cancer.ie

Financial support
A diagnosis of cancer can bring with it the added burden of financial worries. In certain circumstances, the Irish Cancer Society can provide limited financial help to patients in need. You may be suitable for schemes such as Travel2Care or Financial Aid.

Travel2Care is funded by the National Cancer Control Programme (NCCP) and managed by the Irish Cancer Society. The scheme can help with your travel costs if you have genuine financial hardship due to travelling to a designated cancer centre or approved satellite centre. It will help with the costs of public transport, such as trains or buses, private transport costs, or petrol and parking. If you are travelling to a Rapid Access Diagnostic Clinic, you may qualify for the Travel2Care scheme.

Travel2Care: If you would like to request this kind of help, contact your oncology nurse or the Irish Cancer Society at (01) 231 6643 / 231 6619 or email travel2care@irishcancer.ie

Financial Aid: A special fund has been created to help families in financial hardship when faced with a cancer diagnosis. If this applies to you, contact the medical social work department in your hospital. You can also speak to your oncology nurse or contact the Irish Cancer Society at (01) 231 6619.

Care to Drive transport project
Care to Drive is a scheme operated by the Irish Cancer Society. It provides free transport for patients to and from their treatments using volunteer drivers. All of the volunteers are carefully selected, vetted and trained. You are collected from your home, driven to your appointment and brought back home again. Call (01) 231 0522 for more information.

If you would like more information on any of the above services, call the National Cancer Helpline on 1800 200 700. Or visit our website: www.cancer.ie
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Useful organisations

Irish Cancer Society
43/45 Northumberland Road
Dublin 4
Tel: 01 231 0500
National Cancer Helpline Freephone:
1800 200 700
Email: helpline@irishcancer.ie
Website: www.cancer.ie

Citizens Information
Citizen Information Phone Service: 076 10 4000
Email: information@citizensinformation.ie
Website: www.citizensinformation.ie

Irish Oncology and Haematology Social Workers Group
Website:
http://socialworkandcancer.com

National support groups

ARC Cancer Support Centres
Dublin and Cork (see pages 25 and 27).

CanTeen Ireland
Young Peoples’ Cancer Support Group
Carmichael Centre
North Brunswick Street
Dublin 7
Tel: 01 872 2012
Email: info@canteen.ie
Website: www.canteen.ie

I’ve Got What?!
[Support for young adults affected by cancer]
c/o Cross Cause Charity Shop
Blackrock
Co Louth
Tel: 086 339 5690

Lakelands Area Retreat & Cancer Centre
Multyfarnham
Mullingar
Co Westmeath
Tel: 044 937 1971
Callsave 1850 719 719
Email: info@larcc.ie
Website: www.larcc.ie

Laya Healthcare (formerly Quinn)
Eastgate Road
Eastgate Business Park
Little Island
Co Cork
Tel: 021 202 2000
Locall: 1890 700 890
Email: info@layahealthcare.ie
Website: www.layahealthcare.ie

Voluntary Health Insurance (VHI)
IDA Business Park
Purcellsinch
Dublin Road
Kilkenny
CallSave: 1850 44 44 44
Email: info@vhi.ie
Website: www.vhi.ie

Money Advice and Budgeting Service (MABS)
Commercial House
Westend Commercial Village
Blanchardstown
Dublin 15
Tel: 01 812 9350
Helpline 0761 07 2000
Email: helpline@mabs.ie
Website: www.mabs.ie

Health insurers

AVIVA Health
(formerly VIVAS Health)
PO Box 764
Togher
Cork
Tel: 1850 717 717
Email: info@avivahealth.ie
Website: www.avivahealth.ie

GloHealth
PO Box 12218
Dublin 18
Tel: 1890 781 781
Email: findoutmore@glohealth.ie
Website: www.glohealth.ie

Connaught support groups & centres

Athenry Cancer Care
Social Service Centre
New Line
Athenry
Co Galway
Tel: 091 844 319 / 087 412 8080

Ballinasloe Cancer Support Centre
Society Street
Ballinasloe
Co Galway
Tel: 090 964 5574 / 087 945 2300
Email: ballinasloecancer@yahoo.co.uk

Cancer Care West
Inis Aoibhinn
University Hospital Galway
Costello Road
Galway
Tel: 091 545 000
Email: info@cancercarewest.ie
Website: www.cancercarewest.ie

Cara Iorrais Cancer Support Centre
2 Church Street
Belmullet
Co Mayo
Tel: 097 20590
Email: caraionrais@gmail.com

East Galway Cancer Support Centre
The Family Centre
John Dunne Avenue
Ballinasloe
Co Galway
Tel: 087 984 5574 / 087 945 2300
Website:
www.eastgalwaycancersupport.com

Gort Cancer Support Group
The Hawthorn
Ennis Road
Gort
Co Galway
Tel: 086 312 4220
Email: gcshalliday@eircom.net
Website: www.gortcs.ie

Mayo Cancer Support Association
Rock Rose House
32 St Patrick’s Avenue
Castlebar
Co Mayo
Tel: 094 903 8407
Email: info@mayocancer.ie
Website: www.mayocancer.ie

Roscommon Cancer Support Group
Vita House Family Centre
Abbey Street
Roscommon
Tel: 090 662 5898
Email: vitahouse@eircom.net

Sligo Cancer Support Centre
44 Wine Street
Sligo
Tel: 071 917 0399
Email: scsc@eircom.net
Website: www.sligocancersupportcentre.ie

Tuam Cancer Care Centre
Cricket Court
Dunmore Road
Tuam
Co Galway
Tel: 093 28522
Email: support@tuamcancercare.ie
Website: www.tuamcancercare.ie

Leinster support groups & centres

ARC Cancer Support Centre
ARC House
65 Eccles Street
Dublin 7
Tel: 01 830 7333
Email: info@arcancersupport.ie
Website: www.arcancersupport.ie

ARC Cancer Support Centre
ARC House
559 South Circular Road
Dublin 8
Tel: 01 707 8880
Email: info@arcancersupport.ie
Website: www.arcancersupport.ie
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Arklow Cancer Support Group
25 Kingshill
Arklow
Co Wicklow
Tel: 085 110 0066
Email: arklowcancersupport@gmail.com

Balbriggan Cancer Support Group
Unit 23, Balbriggan Business Park
Balbriggan
Co Dublin
Tel: 087 353 2872

Bray Cancer Support & Information Centre
36B Main Street
Bray
Co Wicklow
Tel: 01 286 6966
Email: info@braycancersupport.ie
Website: www.braycancersupport.ie

Cuisle Centre
Cancer Support Group
Block Road
Portlaoise
Co Laois
Tel: 057 868 1492
Email: info@cuislecentre.ie
Website: www.cuislecentre.com

Dóchas: Offaly Cancer Support
Teach Dóchas
Offaly Street
Tullamore
Co Offaly
Tel: 057 932 8268
Email: info@dochasoffaly.ie
Website: www.dochasoffaly.ie

Dundalk Cancer Support Group
Philipstown
Hackballs Cross
Dundalk
Co Louth
Tel: 086 107 4257

Éist Cancer Support Centre Carlow
The Waterfront
Mill Lane
Carlow
Tel: 059 913 9684
Mobile: 085 144 0510
Email: info@eistcarlowcancersupport.ie
Website: www.eistcarlowcancersupport.ie

Gary Kelly Support Centre
Georges Street
Drogheda
Co Louth
Tel: 041 980 5100 / 086 817 2473
Email: services@gkcancersupport.com
Website: www.gkcsupport.com

Greystones Cancer Support
La Touche Place
Greystones
Co Wicklow
Tel: 01 287 1601
Email: info@greystonescancersupport.com
Website: www.greystonescancersupport.com

Haven Cancer Support and Therapy Group
Haven House
68 Hazelwood
Gorey
Co Wexford
Tel: 053 942 0707 / 086 250 1452
Email: info@thehavengroup.ie
Website: www.thehavengroup.ie

HOPE Cancer Support Centre
22 Upper Weaver Street
Enniscorthy
Co Wexford
Tel: 053 923 8555
Email: mary@hopesupportcentre.ie
Website: www.hopesupportcentre.ie

Kilkenny Cancer Support Services
Walkin Street
Kilkenny City
Tel: 085 721 9280
Email: info@kilkennyascancersupport.com
Website: www.kilkennyascancersupport.com

Lakelands Area Retreat & Cancer Centre
Ballinalack
Mullingar
Co Westmeath
Tel: 044 937 1971
Email: info@larcc.ie
Website: www.larcc.ie

Midlands Myeloma Support Group
c/o ROHDU
Tullamore General Hospital
Tullamore
Co Offaly
Tel: 086 780 4007 / 057 932 1501 (Bleep 317)
Email: info@dochasoffaly.ie/Maryb.Kelly@hse.ie
Website: www.mymyeloma.ie

Rathdrum Cancer Support Centre
34 Main Street
Rathdrum
Co Wicklow
Tel: 087 292 8660
Email: rathcan@gmail.com

Stillorgan Cancer Support
c/o Marsham Court
Stillorgan
Co Dublin
Tel: 01 288 5725

Tallaght Cancer Support Group
Millbrook Lawns
Tallaght
Co Dublin
Tel: 087 217 4386
Email: tcallagh@yahoo.ie

Wicklow Cancer Support Centre
1 Morton’s Lane
Wicklow
Tel: 0404 32696
Email: wicklowcancersupport@gmail.com

Munster support groups & centres

Cork ARC Cancer Support House
Cliffdale
5 O’Donovan Rossa Road
Cork
Tel: 021 427 6688
Email: karen@corkcancersupport.ie
Website: www.corkcancersupport.ie

Cúnamh: Bons Secours Cancer Support Group
Bon Secours Hospital
College Road
Cork
Tel: 021 480 1676
Website: www.cunamh.ie

Kerry Cancer Support Group
124 Tralee Town House Apartments
Maine Street
Tralee
Co Kerry
Tel: 066 719 5560 / 087 230 8734
Email: kerrycancersupport@eircom.net
Website: www.kerrycancersupport.com

Recovery Haven
5 Haig’s Terrace
Tralee
Co Kerry
Tel: 066 719 2122
Email: recoveryhaven@gmail.com
Website: www.recoveryhavenkerry.org

Sláinte an Chláir: Clare Cancer Support
Tir Mhuire
Kilmallock
Ennis
Co Clare
Tel: 1850 211 630 / 087 691 2396
Email: admin@clarecancersupport.com
Website: www.clarecancersupport.com

South Eastern Cancer Foundation
Solas Centre
7 Sealy Close
Earlscourt
Waterford
Tel: 051 876 629
Email: info@secf.ie
Website: www.secf.ie

Cork ARC Cancer Support House
Cliffdale
5 O’Donovan Rossa Road
Cork
Tel: 021 427 6688
Email: karen@corkcancersupport.ie
Website: www.corkcancersupport.ie

Midlands Myeloma Support Group
c/o ROHDU
Tullamore General Hospital
Tullamore
Co Offaly
Tel: 086 780 4007 / 057 932 1501 (Bleep 317)
Email: info@dochasoffaly.ie/Maryb.Kelly@hse.ie
Website: www.mymyeloma.ie

Rathdrum Cancer Support Centre
34 Main Street
Rathdrum
Co Wicklow
Tel: 087 292 8660
Email: rathcan@gmail.com

Stillorgan Cancer Support
c/o Marsham Court
Stillorgan
Co Dublin
Tel: 01 288 5725

Tallaght Cancer Support Group
Millbrook Lawns
Tallaght
Co Dublin
Tel: 087 217 4386
Email: tcallagh@yahoo.ie

Wicklow Cancer Support Centre
1 Morton’s Lane
Wicklow
Tel: 0404 32696
Email: wicklowcancersupport@gmail.com

Munster support groups & centres

Cork ARC Cancer Support House
Cliffdale
5 O’Donovan Rossa Road
Cork
Tel: 021 427 6688
Email: karen@corkcancersupport.ie
Website: www.corkcancersupport.ie

Cúnamh: Bons Secours Cancer Support Group
Bon Secours Hospital
College Road
Cork
Tel: 021 480 1676
Website: www.cunamh.ie

Kerry Cancer Support Group
124 Tralee Town House Apartments
Maine Street
Tralee
Co Kerry
Tel: 066 719 5560 / 087 230 8734
Email: kerrycancersupport@eircom.net
Website: www.kerrycancersupport.com

Recovery Haven
5 Haig’s Terrace
Tralee
Co Kerry
Tel: 066 719 2122
Email: recoveryhaven@gmail.com
Website: www.recoveryhavenkerry.org

Sláinte an Chláir: Clare Cancer Support
Tir Mhuire
Kilmallock
Ennis
Co Clare
Tel: 1850 211 630 / 087 691 2396
Email: admin@clarecancersupport.com
Website: www.clarecancersupport.com

South Eastern Cancer Foundation
Solas Centre
7 Sealy Close
Earlscourt
Waterford
Tel: 051 876 629
Email: info@secf.ie
Website: www.secf.ie
Understanding stem cell collection

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U n d e rst a n d i n g stem cell collection

Cancer Focus Northern Ireland
40–44 Eglantine Avenue
Belfast BT9 6DX
Tel: 048 9066 3281
Website: www.cancerfocusni.org

Cancer Network Buddies
Website: www.cancernetworkbuddies.org

Cancer Research UK
Tel: 0044 20 7242 0200
Website: www.cancerresearchuk.org

Healthtalkonline
Website: www.healthtalkonline.org

Suaimhneas Cancer Support Centre
2 Clonaslee
Gortland Roe
Nenagh
Co Tipperary
Tel: 067 37403
Email: suaimhneascancersupport@eircom.net

Suir Haven Cancer Support Centre
Clongour Road
Thurles
Co Tipperary
Tel: 0504 21197
Email: suirhaven@gmail.com

Youghal Cancer Support Group
161 North Main Street
Youghal
Co Cork
Tel: 024 92353 / 087 273 1121

West Cork Cancer Support
Community Work Department
HSE Skibbereen
Co Cork
Tel: 027 53485 / 086 862 5417

Ulster support groups & centres
Cancer Support and Social Club
Tiernaleague
Carronagh
Co Donegal
Tel: 086 602 8993 / 087 763 4596

Crocus: Monaghan Cancer Support Centre
The Wellness Centre
19 The Grange
Plantation Walk
Monaghan
Tel: 087 368 0965

The Forge Cancer Support Group
The Forge Family Resource Centre
Petitgo
Co Donegal
Tel: 071 986 1924

Good and New Cancer Drop In Centre
Unit 1, Portlink Business Park
Port Road
Letterkenny
Co Donegal
Tel: 074 911 3437

Killybegs Cancer Support Group
Killeen
Kilcar
Co Donegal
Tel: 074 973 1292
Email: riverbankdunne@eircom.net

Living Beyond Cancer
Oncology Day Services
Letterkenny General Hospital
Letterkenny
Co Donegal
Tel: 074 912 5888 (Bleep 674/734) / 074 910 4477

Solace: Donegal Cancer Support Centre
St Joseph’s Avenue
Donegal Town
Tel: 074 974 0837
Email: solacedonedgal@eircom.net

Yana Cancer Support Centre
Belturbet
Co Cavan
Tel: 087 994 7360

For other support groups or centres in your area, call 1800 200 700.

Useful contacts outside Republic of Ireland

Action Cancer
Action Cancer House
1 Marlborough Park
Belfast BT9 6XS
Tel: 028 9080 3344
Email: info@actioncancer.org
Website: www.actioncancer.org

American Cancer Society
Website: www.cancer.org

Cancer Focus Northern Ireland
40–44 Eglantine Avenue
Belfast BT9 6DX
Tel: 048 9066 3281
Website: www.cancerfocusni.org

Cancer Network Buddies
Website: www.cancernetworkbuddies.org

Cancer Research UK
Tel: 0044 20 7242 0200
Website: www.cancerresearchuk.org

Healthtalkonline
Website: www.healthtalkonline.org

Macmillan Cancer Support (UK)
Tel: 0044 20 7840 7840
Email: cancerline@macmillan.org.uk
Website: www.macmillan.org.uk

Macmillan Support & Information Centre
Belfast City Hospital Trust
77–81 Lisburn Road
Belfast BT9 7AB
Tel: 028 9069 9202
Email: cancerinfo@belfasttrust.hscni.net

National Cancer Institute (US)
Website: www.nci.nih.gov

Helpful books

Free booklets from the Irish Cancer Society:
- Understanding Autologous Stem Cell Transplants
- Understanding Acute Lymphoblastic Leukaemia
- Understanding Acute Myeloid Leukaemia
- Understanding Chronic Lymphocytic Leukaemia
- Understanding Myeloma
- Understanding Hodgkin Lymphoma
- Understanding Non-Hodgkin Lymphoma
- Understanding Testicular Cancer
- Understanding Chemotherapy
- Understanding Radiotherapy
- Understanding Cancer and Complementary Therapies
- Diet and Cancer
- Coping with Fatigue
- Understanding the Emotional Effects of Cancer
- Lost for Words: How to Talk to Someone with Cancer
- Who Can Ever Understand? Taking About Your Cancer
- Talking to Children about Cancer: A Guide for Parents
- Managing the Financial Impact of Cancer: A Guide for Patients and Their Families
- Journey Journal: Keeping Track of Your Cancer Treatment
- A Time to Care: Caring for Someone Seriously Ill at Home

For other support groups or centres in your area, call 1800 200 700.
### What does that word mean?

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Allogeneic</strong></td>
<td>The use of someone else’s tissue.</td>
</tr>
<tr>
<td><strong>Allograft</strong></td>
<td>A transplant using matched donated tissue.</td>
</tr>
<tr>
<td><strong>Anaemia</strong></td>
<td>A shortage of red blood cells in your blood.</td>
</tr>
<tr>
<td><strong>Antibody</strong></td>
<td>A protein that kills off cells that cause disease or infection.</td>
</tr>
<tr>
<td><strong>Autologous</strong></td>
<td>The use of your own tissue.</td>
</tr>
<tr>
<td><strong>Autograft</strong></td>
<td>A transplant using your own tissue.</td>
</tr>
<tr>
<td><strong>Blood count</strong></td>
<td>A blood test that counts all the different types of cells in your blood.</td>
</tr>
<tr>
<td></td>
<td>This includes red blood cells, white blood cells and platelets.</td>
</tr>
<tr>
<td><strong>Bone marrow</strong></td>
<td>The spongy material at the centre of long bones that makes your body’s blood cells.</td>
</tr>
<tr>
<td><strong>Central line</strong></td>
<td>A flexible tube that is put into a large vein in your chest. It allows chemotherapy to be given and blood to be taken through the one line. Also called a catheter.</td>
</tr>
<tr>
<td><strong>Erythrocytes</strong></td>
<td>Red blood cells.</td>
</tr>
<tr>
<td><strong>Fatigue</strong></td>
<td>Ongoing tiredness often not helped by rest.</td>
</tr>
<tr>
<td><strong>G-CSF</strong></td>
<td>A special type of protein called a growth factor. It stimulates the bone marrow to make white blood cells. Its full name is granulocyte colony-stimulating factor.</td>
</tr>
<tr>
<td><strong>Haematologist</strong></td>
<td>A doctor specialising in diseases of the blood and bone marrow.</td>
</tr>
<tr>
<td><strong>Histology</strong></td>
<td>The study and description of cells.</td>
</tr>
<tr>
<td><strong>Immune system</strong></td>
<td>The parts of your body that fight off and prevent infection.</td>
</tr>
<tr>
<td><strong>Intravenous</strong></td>
<td>Into a vein.</td>
</tr>
<tr>
<td><strong>Lymph</strong></td>
<td>The straw-coloured fluid that circulates material through the lymphatic system.</td>
</tr>
<tr>
<td><strong>Lymphatic vessels</strong></td>
<td>The tubes that carry lymph and connect with the lymph nodes.</td>
</tr>
<tr>
<td><strong>Lymph node</strong></td>
<td>A gland that forms a sieve in your lymphatic system and which is involved in fighting infection.</td>
</tr>
<tr>
<td><strong>Lymphocytes</strong></td>
<td>A type of white blood cell.</td>
</tr>
<tr>
<td><strong>Neutropenia</strong></td>
<td>A shortage of neutrophils in your blood. Neutrophils are the most common type of white blood cell.</td>
</tr>
<tr>
<td><strong>Oncologist</strong></td>
<td>A doctor specialising in the treatment of cancer.</td>
</tr>
<tr>
<td><strong>Plasma</strong></td>
<td>The pale yellow liquid part of blood without the blood cells.</td>
</tr>
<tr>
<td><strong>Stem cells</strong></td>
<td>Immature cells that develop into different types of mature cells in your blood.</td>
</tr>
<tr>
<td><strong>Subcutaneous</strong></td>
<td>Underneath your skin.</td>
</tr>
<tr>
<td><strong>Thrombocytopenia</strong></td>
<td>A shortage of platelets in your blood. Platelets help to stop bleeding.</td>
</tr>
<tr>
<td><strong>Tissue typing</strong></td>
<td>Blood tests that measure substances called antigens on the surface of body cells and tissues. These are known as histocompatibility antigens. The tests find out if a person’s cells or tissues are suitable for transplant to another person.</td>
</tr>
<tr>
<td><strong>Transplant co-ordinator</strong></td>
<td>A clinical nurse specialist with particular knowledge of stem cell transplants.</td>
</tr>
</tbody>
</table>
Questions to ask your doctor

Here is a list of questions that you may wish to ask your doctor. There is also some space for you to write down your own questions if you would like. Never be shy about asking questions. It is always better to ask than to worry.

- Why do you need to collect my stem cells?
- What difference will it make to my condition?
- What tests do I need beforehand?
- When are the stem cells collected?
- How do I prepare for the cells to be collected?
- How are the stem cells moved into my bloodstream?
- Is collecting the stem cells painful?
- Are there any risks or side-effects when collecting stem cells?
- What happens if you cannot collect enough stem cells?
- What happens after the stem cells are collected?
- When will the stem cells be returned to me?
- What happens if I never need the stem cells?

Your own questions

1

Answer

2

Answer

3

Answer

4

Answer

5

Answer

6

Answer
Acknowledgements

We would like to extend a special word of thanks to the following for their invaluable contributions to this booklet:
Haematology staff, St James’s Hospital, Dublin
Joy Lewis, Haematology Clinical Nurse Specialist
Sheila McCorrie, Clinical Nurse Manager in Cancer Services
Karen Mulhall, Haematology Clinical Nurse Specialist
Michelle Connell, Haematology Clinical Nurse Specialist

Would you like more information?

We hope this booklet has been of help to you. If you feel you would like more information or someone to talk to, please call the National Cancer Helpline on 1800 200 700.

Would you like to be a patient reviewer?

If you have any suggestions as to how this booklet could be improved, we would be delighted to hear from you. The views of patients, relatives, carers and friends are all welcome. Your comments would help us greatly in the preparation of future information booklets for people with cancer and their carers.

If you wish to email your comments, have an idea for a new booklet, or would like to review any of our booklets, please contact us at reviewers@irishcancer.ie

If you would prefer to phone or write to us, see contact details below.

Would you like to help us?

The Irish Cancer Society relies entirely on voluntary contributions from the public to fund its programmes of patient care, education and research. This includes patient education booklets. If you would like to support our work in any way – perhaps by making a donation or by organising a local fundraising event – please contact us at CallSave 1850 60 60 60 or email fundraising@irishcancer.ie

Irish Cancer Society, 43/45 Northumberland Road, Dublin 4
Tel: 01 231 0500   Email: info@irishcancer.ie   Website: www.cancer.ie
The mission of the Irish Cancer Society is to play a vital role in achieving world-class cancer services in Ireland, to ensure fewer people get cancer and those that do have better outcomes. Our goals are focused around prevention, survival and quality of life with three programme areas to achieve them: advocacy, cancer services and research.