

Understanding

Radiotherapy

Caring for people with cancer



Understanding

Radiotherapy

This booklet has been written to help you understand more about radiotherapy. It has been prepared and checked by cancer doctors, radiation therapists, other relevant specialists, nurses and patients. The information in this booklet is an agreed view on radiotherapy, how it is given and how this treatment may affect you.

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



Specialist nurse

Tel:

Radiation therapists

Tel:

Radiation oncologist

Tel:

Medical oncologist

Tel:

Surgeon

Tel:

Medical social worker

Tel:

Family doctor (GP)

Tel:

Emergency number

Tel:

Treatments

Review dates

If you like, you can also add:

Your name

Address

This booklet has been produced by the Irish Cancer Society 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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The following sources were used in the publication of this booklet:

- *A Strategy for Cancer Control in Ireland*, National Cancer Forum, 2006.
- *Cancer in Ireland: A Summary, 1994–2007*, National Cancer Registry Ireland, 2009.
- *The Development of Radiation Oncology Services in Ireland*, Department of Health and Children, 2003.
- *Imaging for Oncology: Collaboration Between Clinical Radiologists and Clinical Oncologists in Diagnosis, Staging and Radiotherapy Planning*, Royal College of Radiologists, 2004.
- *Radiation Therapy and You: Support For People With Cancer*, National Cancer Institute, 2008.
- *Nutrition in Patients Undergoing Radiotherapy*, S Holmes, Cancer Nursing, 1997.
- *Cancer Nursing: Principles and Practice*, CH Yarbrow, MH Frogge, M Goodman & SL Groenwald, Jones and Bartlett, 2000.

Published in Ireland by the Irish Cancer Society.

© Irish Cancer Society 2005, revised 2007, revised 2009, revised 2011, revised 2015

Next revise: 2017

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ISBN 0-95323-690-1

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Introduction

This booklet has been written to help you understand more about radiotherapy. Radiotherapy can be given as external treatment or as internal treatment. This means the radiation comes from outside your body or from inside. The booklet is divided into 4 parts:

- **Before treatment** gives an introduction to radiotherapy and describes how your radiotherapy treatment is planned.
- **Treatment and side-effects** discusses the different types of radiotherapy and possible side-effects.
- **Coping and emotions** discusses how you can cope with your feelings and the emotional effects of having cancer.
- **Support resources** gives information on further sources of help and support. This includes helpful organisations, books, support groups and websites. You will also find an easy-to-read explanation of words and terms used throughout this booklet.

It is important to know that radiotherapy is quite safe. Your treatment will be carefully planned and you will be closely monitored throughout it.

We hope this booklet answers some questions you may have and encourages you to discuss them with the radiotherapy team. Treatment practices may vary a little between patients, doctors, hospitals or treatment centres. Talk to your doctor about your treatment and care, as the best choice for you will depend on your particular cancer and your individual circumstances.



Reading this booklet

Remember you do not need to know everything about radiotherapy straight away. Read a section about a particular item as it happens to you. 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, radiation therapist or nurse. You can also call the National Cancer Helpline on Freephone 1800 200 700. It is open Monday to Thursday 9am–7pm and Friday 9am–5pm. Or you can visit a Daffodil Centre. See page 56 for more about Daffodil Centres.



Patient journey for radiotherapy





Before treatment

What is radiotherapy?

Radiotherapy is the treatment of disease using radiation. Radiation or X-rays (as it is also called) can be used to kill cancer cells very accurately. In very small doses X-rays can give doctors a picture of the bones in your body, like in a chest X-ray, to help them make a diagnosis. At high doses, X-rays can be used to treat cancer and other illnesses. When it is used to treat cancer, radiotherapy is also known as radiation oncology.

>>> Radiotherapy is the treatment of disease using radiation.

How is radiotherapy given?

Radiotherapy can be given in two ways: externally and internally. With external beam radiotherapy, the radiation comes from special machines which aim X-rays directly at your tumour or the tumour site after surgery. The radiation is also aimed at a small area of normal tissue around the tumour just in case any cancer cells have spread.

In the case of internal radiotherapy, the radiation source is placed inside your body in special applicators on or near your tumour. It is possible to have both external and internal radiotherapy. In general, most people who receive radiotherapy for cancer have external radiotherapy.

Planning your treatment

Radiotherapy must be carefully planned so that the highest dose is given to the tumour area and as little as possible to the nearby cells. The diagram on page 5 is a step-by-step guide to your radiotherapy treatment planning.



National Cancer Helpline Freefone 1800 200 700

External radiotherapy

In external radiotherapy an important part of the planning process is simulation. This involves using a CT scanner to pinpoint the area to be treated. You may have extra scans or X-rays taken but this is to plan your treatment only. Strictly speaking, these are not tests so there will be no 'results' as such. The treatment field or area may then be marked carefully on your skin. The dose of radiation will be decided and tightly controlled for your treatment.

During treatment you will first be positioned carefully on a treatment table. Then the machine will move around you so that you receive the precise treatment at different angles. Usually treatment takes several



External radiotherapy

minutes and is painless. External radiotherapy is usually given during outpatient visits to the hospital. The course can be several treatments over a number of days or weeks (6 to 8 weeks) or between 1 and 10 doses for palliative treatment. More details on external radiotherapy are found on page 13.

Internal radiotherapy – brachytherapy

With internal treatment, the radiation source is placed inside your body on or near your tumour. The radiation source is sealed and referred to as an implant. This treatment is also known as brachytherapy. Implants may be temporary or permanent. With temporary implants the radioactive source is removed once the prescribed dose is given. With permanent implants, the radioactive source is very tiny like a grain of rice or a seed. It is permanently implanted, for example in the prostate, and gives its radiation dose over a prolonged period of time.

For internal radiotherapy the length of time you spend in the hospital or unit can vary. It will depend on the type of implant used and if it is temporary or permanent. If your doctor decides internal radiotherapy is the best treatment for you, he or she will discuss it with you and give you further information. More details on internal radiotherapy are found on page 22.

Internal radiotherapy – thyroid cancer

For cancer of the thyroid the radiation source may be unsealed (open). It involves using a liquid source of radiation called a radionuclide or radioisotope. It can be given as an injection into a vein (intravenously) but is more usually taken by mouth as a tablet. Unsealed sources are radioactive until your body gets rid of them. See page 25 for more details on cancer of the thyroid.

Why is radiotherapy given?

The aim of radiotherapy is to destroy cancer cells with as little damage as possible to normal cells. With the right amount of treatment, cancer cells do not recover from radiotherapy. Radiotherapy can be used to treat many kinds of cancer in most parts of your body. It is particularly effective for head and neck cancers, lung and breast cancers, and cancers in the abdomen and pelvic area. Depending on the type and stage of your cancer, radiotherapy has different goals:

- Curative treatment
- Palliative treatment

Curative treatment

Curative treatment is when the aim of radiotherapy is to cure cancer and prevent it returning. It is called radical treatment when it is the primary treatment. For example, in the case of early cancer of the larynx.

Palliative treatment

Radiotherapy for palliative treatment can relieve any distressing symptoms you may have, such as pressure, pain or bleeding. If a cure is not likely, palliative treatment can lead to a better quality of life. Often a short course, sometimes only a single treatment, is needed.

When is radiotherapy given?

Radiotherapy can be given on its own or in combination with other treatments, such as surgery, chemotherapy, hormone therapy and biological therapy. For some cancer patients, radiotherapy is the only treatment needed.

These days radiotherapy is commonly used with surgery to treat cancer. It can be given some weeks before surgery to shrink a tumour and make it easier for surgeons to remove. As a result, you may need less radical surgery, that is, less tissue removed. This is called neo-adjuvant therapy.

In most cases radiotherapy is given after surgery to prevent the growth of any cancer cells that might remain in your body. This is called adjuvant therapy and may also include other treatments such as chemotherapy. In fact, radiotherapy can be given before, during or after chemotherapy. The aim of radiotherapy before chemotherapy is to reduce the size of the tumour. Radiotherapy after chemotherapy aims to kill any remaining cancer cells. Your doctor will decide how much radiotherapy and chemotherapy you should be given based on recognised treatment guidelines.

Where is radiotherapy given?

Radiotherapy is normally given in special cancer treatment centres, usually hospitals or clinics. These centres need highly trained staff and space for the large equipment involved. As a result, the centre may be some distance from the hospital where you received surgery or chemotherapy.

Most people receive radiotherapy as outpatients, travelling to the radiotherapy unit each day. For some internal radiotherapy you may have to stay in hospital for a few days, or in some cases you can receive it in the radiotherapy unit as an outpatient.

Staff in the radiotherapy unit

The staff you will meet regularly in the radiotherapy unit will be your doctors, radiation therapists and nurses. Depending on your needs, you may also come across physiotherapists, dietitians, speech and language therapists, medical social workers, clinical psychologists and counsellors.

Radiation oncologist: A consultant medical doctor who specialises in treating cancer patients using radiotherapy. He or she usually heads a team of doctors.

Medical oncologist: A consultant medical doctor who specialises in treating cancer using chemotherapy and biological therapy.

Radiation therapist: A healthcare professional who specialises in planning and delivering radiation to patients with cancer and other conditions. They will monitor your progress during your treatment, explain any side-effects that may occur and help with any needs you have during treatment including psychological ones.

Radiation physicist: A radiation expert who helps to plan your treatment with the radiotherapy team. They make sure that the equipment is working properly and that the machine delivers the right amount of radiation. Most patients do not meet the radiation physicist.

Dosimetrist: A scientist who plans and calculates the proper radiation dose for your treatment. They work closely with the radiation oncologist, physicist and radiation therapist. Most patients do not meet the dosimetrist.

Radiographer: A specially trained person who takes X-rays, CT and MRI scans, mammograms, etc. that you may need during your cancer treatment.

Oncology nurse: A nurse who specialises in radiation oncology. They will co-ordinate your care, help you learn about your radiation treatment, tell you how to manage the side-effects, and take care of any dressings, medicines or special needs you have.

Mould room technician: A specially trained person who makes devices to prevent you moving during treatment. For example, for head and neck cancers, they will make a special mask so that your head and shoulders can keep still during treatment. They work closely with the radiation therapist.



To sum up

- Radiotherapy is a treatment used to cure or control cancer.
- Radiotherapy involves careful planning before treatment.
- There are external and internal ways of giving radiotherapy.
- The benefit of radiotherapy is that it can destroy or shrink cancer cells and relieve pressure, pain or bleeding.
- The risk of radiotherapy is that it can temporarily damage or destroy healthy cells leading to short-term and long-term side-effects.
- With radical radiotherapy there is a small risk of some permanent damage.
- Radiotherapy can be used together with surgery and chemotherapy.



Treatment and side-effects

External radiotherapy

Your radiation oncologist may decide that external radiotherapy is the best treatment for you. Linear accelerators, called linacs for short, are most commonly used for external radiotherapy as they can deliver powerful and precise beams of radiation.



A linear accelerator

Tests and planning

Before you receive radiotherapy there are many preparations to be made. Planning your treatment may take time – anything from one day to weeks – and then waiting for treatment may take more time. Do not be alarmed if you think it is taking too long. It just means that the doctors and staff are making sure that the treatment is specially designed for your needs. Usually there is no planning involved in palliative treatment.

>>> Ask plenty of questions if you are unsure about any part of your treatment planning.

Treatment planning can include:

Physical exam: A physical exam will be done to check the general state of your health. You may need to have some X-rays, scans and blood tests done as well. Before starting treatment, make sure to tell your doctor about any medicines you are taking, including herbal remedies. He or she may advise you to stop taking these remedies during your course of radiotherapy. If you have any allergies or sensitive skin, it is worth mentioning these too.

CT planning: Your first visit to the radiotherapy unit will involve a CT planning session. This is where the radiation therapist uses a machine called a CT scanner to locate your treatment field. This is the exact area of your body where the radiation will be delivered each time. CT planning can last for up to 30 minutes.

You will be asked to lie very still on a hard table (CT scanner couch) so make sure to wear comfortable clothes. Some hospitals may provide gowns. During the planning, the lights in the room will be switched off and laser lights will become visible. These laser lights are harmless. They are used to position you for your CT planning scan and for your treatment.

Your doctors may use your previous X-rays or scans to help them plan your treatment.

Immobilisation: You need to stay as still as possible during the planning and treatment sessions. Every effort will be made to make you as comfortable as possible. Foam pads, special vacuum bags and immobilisation devices may be used to help you stay in the treatment position. Sometimes the mould room technician or radiation therapist can make special devices or supports for you. For more information on immobilisation, see page 16.

Skin markings: The radiation therapist may put permanent tattoos on your skin using a special marking pen. This is to make sure that you are in the same position each time for treatment. The tattoo is really just one small dot and you may need to sign a consent form before it is done.

Pregnancy test: It is important that you are not pregnant during your treatment. A pregnancy test can be arranged if there is any chance that you could be pregnant.

Once all your tests and planning are completed, you can go home. Your doctor, the radiation physicists, radiation therapists and the dosimetrist will work together to calculate the dose of radiation you need based on the treatment goals. Do talk to the information and support radiation therapists if you have any worries or concerns.

Contact radiotherapy

Contact radiotherapy can be used to treat cancers on the surface of your skin. This includes basal cell carcinomas (BCCs), squamous cell carcinomas (SCCs) and other skin conditions. It uses energies much lower than those of the linear accelerators. Sometimes it is used to treat secondaries in the bone, for example in the ribs. Different sizes of applicators can be used, depending on the size of the treated area. The applicator is put into the head of the machine and then placed on the skin surface. This is why it is called contact radiotherapy.



Contact radiotherapy

Giving your consent for treatment

Before you receive any radiotherapy (external or internal), your doctor should ask you to sign a consent form for the hospital staff to give you the treatment. This is a written record stating that you have agreed to the planned radiotherapy. It is important to take time to consider what the treatment involves. The benefits and risks of the treatment should be explained to you, and also any side-effects that may occur. Any other treatments that are available should also be discussed. You are also free not to agree to the treatment or to stop it at any time. However, it is best to discuss your reasons and concerns with your doctor first.

What are the benefits and risks of treatment?

With every medical treatment there are benefits and risks. As already mentioned the high doses of radiation will harm not only cancer cells but also normal cells. Your doctor will discuss with you in advance the benefits of treatment and any possible serious side-effects. The possible treatment side-effects are known to your doctors, radiation therapists and nurses and they will tell you what to expect in the short term and the long term. Also, they will give you advice on how to look after yourself and help relieve any symptoms. See page 26 for more details about side-effects of treatment.

Planning for radiotherapy: Immobilisation

Planning for radiotherapy can be a slow process. You may need to visit the radiotherapy unit once or twice to complete it. You may need to wear a body mould, mask, dental mouth bite or circular head frame. These are called immobilisation devices. The device will help keep you in the right position every time you have treatment.

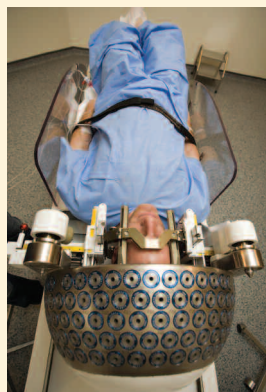
Body mould

You will first be asked to lie down and hold your arms above your head. You will then lie on a bag (like a bean bag) the length of your body. Next a vacuum will be attached to the bag and the air sucked out. This will make a mould around your body so that you are always in the same position for your planning and treatment.



Head frame

A head frame is used for intracranial stereotactic radiosurgery only, which is described on page 20. A circular metal frame is held in place by four attachments that line up with your skull. Two are in your forehead and two are in the back of your head. Your neurosurgeon (specialist doctor) will put your head frame on. An anaesthetic will be used to numb the skin where the frame will be attached. You will feel some pressure at first but you should not feel any pain.



Mask

If you are having radiotherapy to your head or neck, you may need to wear a mask during treatment. The mask can be made from either clear plastic (Perspex) or a type of mesh plastic (thermoplastic). For the Perspex mask, the mould room technician will firstly apply a cream to your face. They then put strips of plaster of Paris bandage on top of this to make a mould. This takes a few minutes to set and is then removed. A Perspex mask is made from this mould.

A thermoplastic mask uses a type of mesh plastic that becomes soft and pliable when heated in warm water. The plastic is then draped carefully over your head. It will feel like a warm face cloth placed over your face at first but it cools very quickly. The holes in the plastic will allow you to breathe easily through it. The radiation therapist and mould room technician mould the plastic to the shape of your head as it cools.



Thermoplastic mask

Dental mouth bite

To make a dental mouth bite, you will be asked to bite into a plastic mould full of putty. This mould is like a gum shield. The putty will dry in 10 minutes and make a mould of your upper teeth. The radiation therapist will then attach a small frame to your mould. Your radiation therapist might ask you to remove your mouth bite a few times to check that it fits correctly.



How long does treatment take?

The total dose of radiation and the number of treatments you need will depend on:

- The size, location and type of your cancer
- Your general health
- Other treatments you are receiving, such as chemotherapy, surgery, or biological therapy

This means the dosage and length of treatment can vary between patients, even those with the same type of cancer. External radiotherapy is usually given once daily, 5 days a week for 4 to 8 weeks. Depending on the hospital you attend, sometimes your appointment can be made for the same time each day. Normally, there is no radiotherapy treatment on Saturdays and Sundays. Each treatment is called a fraction so you will receive, for example, five fractions per week.

➤➤➤ External radiotherapy is usually given once daily, 5 days a week for 4 to 8 weeks.

When the aim is not to cure cancer but to control its symptoms, the course of treatment is much shorter.

What happens during treatment?

The radiation therapists who deliver the treatment will first explain to you what happens and what to expect – all the sights, sounds and likely side-effects. It is natural to feel anxious about radiotherapy, so every effort will be made to put you at ease. If you have any questions or concerns, no matter how small, talk to your radiation therapist.

First day of treatment

On the day of your first treatment, you will come to the radiotherapy unit. It is best to wear clothing that is comfortable and easy to take off and put on again. Some hospitals may provide gowns. The radiation therapists will help you onto the treatment table and will adjust both the table and the machine to the exact positions that are needed. You will be put in the same position as at your CT planning scan. Because you need to keep still for a few minutes during treatment, they will make you as comfortable as possible.

Special shields or blocks may be put between the machine and certain parts of your body to protect normal tissues and organs. There may also be plaster, plastic or foam pads or vacuum bags to help you stay in the right position. The lights will be turned down while the radiation therapists are setting up the machine and laser lights will be used to align the tattoos daily. Relax as much as you can and just breathe normally.

Giving treatment

The radiation therapists will leave the treatment room just before your treatment begins. The radiation machines are operated from outside the room in the control area. This is the only time that you will be left alone. But don't worry because the radiation therapists will be watching you carefully on a closed-circuit television. They can hear and see you and can talk to you through an intercom. If for any reason you need them, just speak and they will immediately stop the treatment and enter the room. If you are wearing a mask, just wave your hand. The machines can be stopped at any time. The radiation therapists control all of the movements of the machine at all times.

You need to remain as still as possible during the treatment so that radiation only reaches the treatment areas and that the same area is treated each time. Just breathe normally. The machine may move around you and will be operated from outside the room, but it will not touch you. After a few minutes, your treatment will be over for that day.

Receiving radiation is painless – just like having an X-ray. Even though it is painless you still may feel anxious about the machines. They are large and most of them make a buzzing noise as they move around your body aiming at the treatment area from different angles. Some people worry that they will be completely enclosed by the machine, but this does not happen. To help you relax some treatment rooms have music and you can always talk to the radiation therapist at any time during your treatment.

>>> You must remain as still as possible during treatment – just breathe normally.

How long will treatment take?

From start to finish, the treatment session may take about 15 minutes, allowing time for getting on and off the treatment table and for the machine to be set up. This routine will go on each weekday until your course of treatment is finished. If you have any problems at home between sessions, your radiation therapist will give you information about who to contact and when.



To sum up

- External radiotherapy involves careful planning.
- A CT planning scan will be used to pinpoint the area to be treated.
- The skin of the treatment area will be marked by a special pen.
- Each treatment session will last about 15 minutes.
- A course of treatment will last from 4 to 8 weeks.

Different types of external radiotherapy

Techniques in radiotherapy are developing all the time. Ones that are currently available in Ireland include:

- Conformal radiotherapy
- Stereotactic radiotherapy and radiosurgery
- Intensity-modulated radiotherapy (IMRT)
- Image-guided radiotherapy (IGRT)
- Total body irradiation (TBI)

Conformal radiotherapy: Conformal radiotherapy is also called three-dimensional (3D) conformal radiotherapy. It is a very commonly used type of radiotherapy. Conformal radiotherapy uses a device inside the linear accelerator that can be individually adjusted to match your tumour. The radiation beams are precisely focused so that nearby healthy tissue is spared. This results in less side-effects, allowing a higher dose of radiation to be given.

Stereotactic radiotherapy and radiosurgery: Stereotactic radiotherapy is a very technical and accurate way of giving radiotherapy. It uses smaller, more precise radiation beams than standard radiotherapy. These beams are targeted at your tumour from several different angles, which combine to give a high dose of radiation. Stereotactic radiotherapy is generally used on small tumours that are not suitable for surgery, such as brain or lung tumours.

If stereotactic treatment is given to your brain, it is called intracranial stereotactic radiotherapy. If it is given to any part of your body but not your head, it is called extracranial stereotactic radiotherapy or stereotactic body radiotherapy. A number of different machines can give this type of treatment. They include linear accelerators and specially designed machines such as CyberKnife®.

Stereotactic radiosurgery is like stereotactic radiotherapy, except that it is given in just one dose. It is used to treat tumours in your head (intracranial radiotherapy).

»»» Stereotactic radiosurgery is like stereotactic radiotherapy, except that it is given in just one dose.

Intensity-modulated radiotherapy (IMRT): Intensity-modulated radiotherapy (IMRT) can shape the radiotherapy beams so that different doses of radiotherapy can be given to different parts of the treatment area. For example, if you are having radiation to your throat for throat cancer, the lymph nodes in your neck will also need treatment but at a much lower dose. With IMRT you will receive a higher dose to your throat and a lower dose to your neck lymph nodes. IMRT also helps to reduce doses of radiation to normal, healthy tissues compared to standard radiotherapy.

RapidArc® is a technique that allows for even more efficient and accurate use of intensity-modulated radiotherapy.

Image-guided radiotherapy (IGRT): Often tumours can move between and during radiotherapy. For example, when you breathe, swallow or fill your bladder. Image-guided radiotherapy (IGRT) allows for changes in your tumour's location. Images are taken of your body every time you have treatment. These images help your therapists to adjust your radiotherapy so that it is targeting the tumour. By constantly checking the size and location of your tumour, your doctors can make sure that your treatment is as accurate as possible.

Total body irradiation (TBI): For some types of leukaemia, lymphoma or myeloma, doctors may use radiotherapy to the whole body. This is called total body irradiation. This is part of the preparation for a bone marrow transplant or a stem cell transplant. The radiation kills off all bone marrow, including cancer cells, before healthy bone marrow is given back to you.

For more detailed information on total body irradiation, call the National Cancer Helpline on Freephone 1800 200 700 or visit www.cancer.ie

Internal radiotherapy – brachytherapy

Your radiation oncologist may decide that internal radiotherapy is the best way to treat your type of cancer. Internal radiotherapy is also known as brachytherapy. In some cases giving both internal and external radiotherapy may be needed.

With internal radiotherapy, a high dose of radiation is given to the tumour in a shorter space of time than with external radiotherapy. You may need internal radiotherapy only once or a small number of times. Instead of a large radiation machine giving the treatment, the radioactive material (source) is placed as close as possible to your tumour or where the tumour has been removed. It is sealed in an implant, which can be in the form of an applicator, plastic wire, tube, seed or capsule. It is used to treat cancers of the:

- Cervix, womb and vagina
- Head and neck, including mouth and lip
- Prostate
- Eye (ocular)
- Lung
- Oesophagus, rectum and bile duct
- Breast

»» With internal radiotherapy, a high dose of radiation is given directly to the tumour, sparing normal tissue. It can also be given in a shorter space of time than with external radiotherapy.

Brachytherapy can be given in several ways either as an outpatient or inpatient and depends on the type of implant used. The implants may be either temporary or permanent. Mostly they are temporary. If they are temporary, they are put in your body in an applicator.

Permanent implants can be given in prostate cancer, where the ‘seeds’ are left in and lose their radiation gradually over time. However, they will not affect the people around you. See page 24 for more about prostate brachytherapy.

Planning your treatment

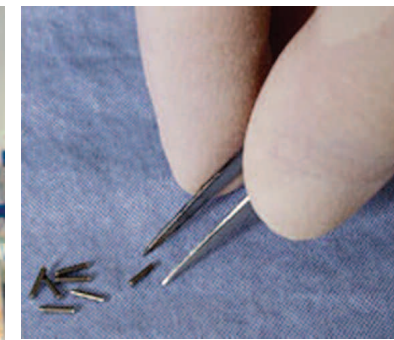
You may be admitted to the hospital or radiotherapy unit the day before your treatment.

Tests: Depending on the location of your tumour, you may need extra tests such as blood tests, X-rays, ultrasounds, or CT scans.

Method of delivery: Again depending on the size and location of your tumour, your doctors will decide what kind of implant you need – temporary or permanent. They will also decide on how the implant will be placed in your body.



A brachytherapy unit



Size of brachytherapy seeds

Insertion of applicator or seeds: In most cases you will be brought to theatre for the applicator or seeds to be put in under anaesthetic. For brachytherapy to the pelvis, usually a spinal anaesthetic is given. Applicators may be thin wires or plastic tubes called catheters. The applicator can be placed directly into the tumour or put into a body cavity, for example the womb. Or it may be placed in the area where your tumour was removed during surgery. Depending on your cancer you may have one or more applicators. Once the applicators are in place, an X-ray or CT scan will be taken to check if they are in the correct place.

Dosage: The dose of radiation will be carefully calculated by your radiation oncologist, physicist, dosimetrist and radiation therapist. The dose will depend on:

- Your type of cancer
- Where the cancer is located
- Your general health
- Any other cancer treatments you have had

Implants are usually given by high-dose rate (HDR). High-dose rate gives a precise dose of radiotherapy directly to the tumour very quickly, but a low dose to the nearby normal tissue.

Consent: Your doctor should ask you to sign a consent form before any treatment begins. Again ask as many questions about this treatment as you wish. It can be hard to understand when explained for the first time. Your doctor may draw diagrams to help with any explanations. See page 15 for more information on giving consent.

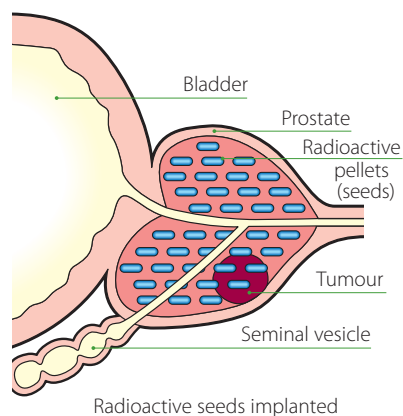
What happens during treatment?

You will be taken to a special room for treatment. The applicators will first be attached to a machine. When this machine is switched on it passes a small radioactive source into the applicator. You may hear this referred to as 'afterloading'. What happens during treatment can vary depending on the location of your tumour and the dose you receive. Your doctor, radiation therapist and nurse will carefully explain what will happen during treatment, how long the applicator and implant must stay in place, when you can go home, and any precautions that you must take.

Brachytherapy for prostate cancer

Brachytherapy to the prostate can be given in two ways: low-dose rate (LDR) or high-dose rate (HDR). Your doctor will decide which rate you need depending on the stage of your cancer.

With **low-dose rate** brachytherapy, small radioactive seeds (or pellets) are put into your tumour. This happens under general anaesthetic so you will not feel anything. About 50–100 of the seeds are put in using long needles and an X-ray to control where they go. The seeds are left in place and slowly release radiation over a number of months, but it stops within 1 year.



The treatment is usually over in a single visit. You will also have a long tube (catheter) put in to drain your urine. Once the catheter is removed and you can pass urine again, as well as eat and drink, you will be allowed home. You may be prescribed antibiotics to prevent an infection afterwards.

High-dose rate brachytherapy uses a temporary implant. This is where applicators (rods) are put into your tumour to allow a radioactive material to reach the area for a few minutes. After the treatment all the rods are removed. There is no radiation source left in your prostate gland. You will be given a general anaesthetic so you do not feel anything during the operation. High-dose rate brachytherapy is not widely available in Ireland at present.

>>> Radioisotope treatment for thyroid cancer

The treatment of thyroid cancer usually involves a liquid radioactive source that is given either as a capsule or as an injection into a vein. Sometimes this is referred to as radioisotope treatment. Special care must be taken with this treatment. Before treatment you will be brought to a special room with an ensuite. Here you will be asked to take a capsule of radioactive iodine. You will have to stay in this room for a number of days as your urine and stools will be radioactive. Usually after 3 days you will be allowed home. Your doctor, nurse or physicist will advise you on any precautions that need to be taken and answer any queries you might have about this type of treatment. For more information, call 1800 200 700 for a copy of our booklet *Understanding Cancer of the Thyroid*. You can also pick it up at a Daffodil Centre or download it from www.cancer.ie



To sum up

- Internal radiotherapy uses a radioactive source that is placed inside your body on or near the tumour.
- Internal radiotherapy can be given in a shorter space of time than with external radiotherapy.
- Large treatment machines are not used for internal treatment.
- The radiation source is sealed in an implant, which can be a thin wire, tube, seed or capsule.
- Implants can be either temporary or permanent.
- Temporary implants need an applicator to keep them in place – this can be thin wires or plastic tubes called catheters.
- Permanent implants do not need an applicator but use radioactive seeds placed directly into the tumour.
- Applicators are usually put in during an operation.

What side-effects can I expect?

Radiotherapy will affect normal tissue within the treatment area. Any side-effects you get will depend on which part of your body is being treated and the number of treatments you get. It is important to know that radiotherapy is not painful, but may cause discomfort in the area being treated.

>>> Tell your doctor, nurse or radiation therapist about any symptoms or side-effects that you notice.

Most side-effects are temporary and are rarely severe. In general side-effects may be short term or long term. The short-term side-effects develop towards the end of treatment or just as treatment has finished. These usually last for a few weeks. Long-term side-effects may occur after treatment and may sometimes be permanent. This can include scar tissue or other changes to your tissues. Some side-effects can occur no matter what area of the body is being treated.

These are called general side-effects. Other side-effects can be specific to the area being treated.

Before treatment, your doctor will discuss any likely short or long term side-effects with you. Some side-effects are visible while others are hidden. The visible ones may affect your body image and might cause anxiety. Your doctor, nurse or radiation therapist will also give you tips on how to deal with side-effects and how they can be relieved. They will also meet with you weekly to see how you are getting on. Being aware of the side-effects beforehand can help you to cope with them if they arise.

What can I do to reduce side-effects?

To make sure that your radiotherapy works as well as possible and to reduce side-effects, it may help to stop smoking during treatment. Your doctor may recommend that you give up alcohol and smoking completely, especially if you are being treated for head and neck or lung cancers. If you would like to stop smoking contact the HSE Quit Team on 1800 201 203. You can also get advice and help about quitting from your doctors or nurses.

In general it is important to eat a balanced diet and drink plenty of fluids during treatment to promote healing and good health. Many people think that radiotherapy causes nausea and vomiting, as with chemotherapy. But this is not true. Nausea and vomiting will only occur if your abdomen or pelvic regions or brain are being treated.

For more information on side-effects, call the National Cancer Helpline on 1800 200 700 or visit a Daffodil Centre.

>>> Eat a balanced diet and drink plenty of fluids during treatment to promote healing and good health.

General side-effects

Tiredness and fatigue

Tiredness is quite common during radiotherapy, especially towards the end of treatment. There may be many reasons for feeling tired or fatigued. The body uses a lot of energy for healing during radiotherapy. Travelling to and from the hospital each day for weeks can make you more tired than usual. In general the fatigue may last for some time afterwards.

You may not always have to change your routine – just do what you're able to do. But tell your doctors, radiation therapist or nurse if tiredness becomes a problem for you. They can offer advice on ways to save your energy and cope with everyday activities. More information on how to cope with fatigue is available from the Irish Cancer Society in a booklet called *Coping with Fatigue*. Call the National Cancer Helpline 1800 200 700 or drop into a Daffodil Centre for a free copy. You can also download it from www.cancer.ie



Skin care

You may have a skin reaction as a result of radiotherapy. Only the skin within the treatment area will be affected and it may become red, sore or itchy.

>>> Skin reactions usually happen after 3 to 4 weeks of treatment.

Skin reactions usually happen after 3 to 4 weeks of treatment. At the start of treatment, your radiation therapist and nurse will give you all the advice you need on skin care for the treated area. Ask as many questions as you like, no matter how silly or trivial you think they are. During your treatment, your radiation therapists will also be checking for any skin reactions, but you should also let them know as soon as you feel any soreness. Also, your doctor may prescribe a cream or lotion for you to use. Skin reactions usually settle down 2 to 4 weeks after treatment has finished. After the redness has faded your skin may peel, but it should heal quickly. The skin may also remain a little darker than the surrounding skin.

The following tips and hints will help you to care for your skin and keep it in good condition during and after your radiotherapy treatment.

>>> Tips & Hints – skin care



- Do not scratch or rub the treated area as it may become sore.
- Avoid soaps, talcum powders, deodorants, lotions, perfumes as they may irritate the treated area.
- Apply simple moisturisers like E45 cream or aqueous cream to the area.
- Do not apply creams, lotions, dressings, herbal remedies unless prescribed or recommended by your specialist.
- Do not wet shave within the treated area. Also avoid using shaving lotion or hair removal products on the treated area.
- Wash the area gently with lukewarm water and pat it dry.
- Protect your skin from cold weather by wrapping up well.
- Never expose the treated area to the sun. Always use a total sunblock on the treated area and use a sunscreen (SPF 30) on non-treated skin. Cover treated skin with light clothing when outdoors.
- Do not apply sunscreen before radiation treatment.
- Do not apply heat or cold (heating pads, hot water bottles, ice packs, etc.) to the treated area. Avoid saunas and steamrooms.
- Do not use adhesive tape on the treated skin. When bandaging use paper tape outside the treated area.

In general you may find it more comfortable to wear loose, casual clothing made from natural fibres. It is best to avoid tight collars and ties if you receive radiotherapy to your head and neck. Also avoid wearing starched or stiff clothing over the treated area. For radiotherapy to the pelvic area, do not wear girdles, corsets or anything tight. Shoulder straps and bra straps rubbing against treated skin can also cause skin irritation. If your breast area is being treated, it may be more comfortable to wear a vest rather than a bra.

Specific side-effects

Depending on which part of your body receives radiotherapy, you may experience specific side-effects. These can either be short term or long term. This section in particular deals with the side-effects of radiotherapy relating to the:

- **Head and neck region** – larynx, thyroid, brain, etc.
- **Breast**
- **Chest area** – lung, oesophagus
- **Abdomen and pelvic region** – colon and rectum (bowel), anus, prostate, bladder, cervix, etc.

>>> Most side-effects depend on which area of the body is treated.

Radiotherapy to the head and neck region

Depending on the area of the head and neck being treated you may experience some of the following side-effects.

Mouth problems

Radiotherapy to this region can cause a sore mouth and throat because the cells that line these areas are very sensitive to treatment. So it is important that you keep your teeth, gums and mouth very clean, as this will help to control the soreness and reduce the risk of a mouth or throat infection.

The kind of mouth problems you might experience include:

Taste changes: Radiotherapy can affect the taste buds in your mouth. You may find that food tastes bland, salty, metallic or like cardboard. If this happens, you may lose interest in food. If your appetite is poor, ask your nurse or radiation therapist to refer you to a dietitian who will check your weight and give you further advice. Your taste and appetite should improve greatly once treatment has ended.

Dry mouth (xerostomia): You may notice that your mouth and throat feel dry all the time. This is because radiotherapy may cause the salivary glands to make less saliva (spit) than usual. You may also find that the saliva can become thick and stringy making swallowing and speech a little difficult too. The dryness may improve with time but can

be permanent. It may be helpful to sip cool drinks during the day and use sauces or gravy to make food moist and easier to swallow. Keep your lips moist with aqueous cream. There are also many types of artificial saliva available which help to keep your mouth moist.

Sticky mucus: You may also find that you have a lot of sticky mucus in your throat. If the mucus turns green or yellow, tell your doctor. It may need to be treated with medication.

Soreness: Your mouth and throat will most likely become red and sore and mouth ulcers may develop (mucositis). Sometimes eating food may become difficult and swallowing painful. Your voice may also become hoarse. Let your doctor or nurse know as soon as possible if these happen. You will be prescribed painkillers if you need them. Your doctor or dietitian will advise you on how to change your diet to make eating more comfortable.

>>> Let your doctor or nurse know as soon as possible if your mouth or throat becomes sore.

Dental problems: You will need to take special care of your teeth as they will be more prone to decay because of the lack of saliva. Avoid sucking sweets when your mouth feels dry as it increases your risk of both tooth decay and thrush. It is better to use water, fruit like melon or pineapple, or a sugar-free chewing gum. You will usually be asked to put fluoride gel on your teeth every day to help prevent decay. After radiotherapy, you will need to have regular dental check-ups (every 4–6 months).

Mouth stiffness: Sometimes radiation to your head and neck can cause a stiffness in certain facial muscles. This is called trismus. The stiffness can reduce your mouth opening. You will be shown some simple mouth-opening exercises that should be done at least twice every day to keep your mouth as flexible as possible.

For more information on mouth problems and radiotherapy treatment, call the National Cancer Helpline on 1800 200 700 and ask for a copy of our booklet *Understanding Cancers of the Head, Neck and Mouth*. You can also pick a copy up at a Daffodil Centre or download it from www.cancer.ie



Tips & Hints – mouth care

- Gently brush your teeth with a small, very soft toothbrush five or six times a day, especially after meals and before bedtime. It may help to soften the brush in warm water before brushing.
- Use a mild fluoride toothpaste only.
- If you have dentures, remove them every night and if your gums are sore.
- Use special mouthwashes to keep your mouth clean, fresh and to ease mild soreness or pain.
- Only use mouthwashes recommended by your dentist, radiation therapist or nurse. Some mouthwashes contain alcohol and are too harsh.
- Sip cool water during the day. Add ice cubes to keep it cool.
- Avoid eating hot, spicy or very cold food and drink.
- Avoid alcohol (especially spirits) and tobacco as they can irritate the lining of your mouth and throat. They can also make side-effects more severe.
- If you need teeth pulled (extracted), tell your doctor.
- Visit your dentist at least every 6 months.

Hair loss (alopecia): It is true that radiotherapy can cause hair loss, but only in the area being treated. Most hair loss is temporary and will start to grow back within 2 to 3 months of finishing treatment. But hair loss in the treatment area can be permanent, depending on the radiation dose.

If you would like more advice, contact the National Cancer Helpline 1800 200 700 for a free copy of the factsheet *Hair Loss and Cancer Treatment*. You can also pick it up from a Daffodil Centre or download it from www.cancer.ie

Difficulty with eating and drinking: Surgery and radiotherapy to your neck, like your larynx, may cause difficulty with both eating and drinking. For example, you may have difficulty in swallowing.

If you have any difficulty eating or drinking, talk to your doctor, radiation therapist or nurse as soon as possible. They can give you simple advice on how to solve the problem, the best foods to eat or

what to gargle with. The discomfort will usually ease 5 to 8 weeks after you finish treatment.

Diet and Cancer

If you have difficulty eating or drinking or you are concerned about weight loss, a helpful booklet called *Diet and Cancer* is available from the Irish Cancer Society. Call the National Cancer Helpline on 1800 200 700 for a free copy. You can also pick it up from a Daffodil Centre or download it from www.cancer.ie



Weight loss: If you continue to lose weight because you have difficulty in eating, you may need to be fed in another way. This may mean that you need to spend a short time in hospital. Liquid food can be given into a vein (intravenously) or by a tube into your stomach called a PEG tube, until you can eat properly again.



Tips & Hints – eating and drinking

- Drink about 2 litres of fluid (3 to 4 pints) each day.
- Eat when you are hungry, even if it is not mealtime.
- Eat small snacks during the day rather than large meals.
- Increase the calories by adding butter, spreads or cream to your food.
- Vary your meals and try new recipes.
- Keep simple meals in the freezer, ready to use for when you feel hungry.
- If you live alone, arrange for a relative or Meals on Wheels to bring food to you. Ask your GP, nurse, medical social worker or community welfare officer if it can be arranged.

Voice changes: Radiotherapy to your neck, in particular your larynx, may cause the sound of your voice to change. If you have a voice prosthesis such as a Blom-singer valve or are using an electrolarynx, you may notice that the quality of your voice is poor. This common effect of treatment is temporary. Talk to your speech and language therapist who will explain this side-effect to you in more detail.

Radiotherapy to the breast

If you receive radiotherapy to your breast, you may notice that you develop some changes in the treated area. Side-effects can occur during treatment or immediately afterwards. The short-term side-effects can include breast or nipple soreness, skin reactions, and swelling in the treated area.

Hyperpigmentation and broken veins: The long-term side-effects can include hyperpigmentation, where the skin on the treated area becomes deeply tanned. A pattern of tiny broken veins called telangiectasia may also be visible on your skin. It is best to discuss any breast changes with your doctor, radiation therapist or nurse during treatment and afterwards when you come for check-ups. You can also call the National Cancer Helpline on 1800 200 700.

Lymphoedema: If you have radiotherapy to your breast tissue and nearby area, including your armpit, you are at risk of developing lymphoedema. This is a swelling caused by a build-up of lymph fluid in your tissues. If you notice swelling anywhere on your arm, hand or breast area, talk to your nurse, doctor or radiation therapist for advice. Do ask to be referred to a trained lymphoedema therapist.

For more information, call the National Cancer Helpline and ask for our factsheet *Reducing your Risk of Arm Lymphoedema*. You can also pick one up at a Daffodil Centre or download it from www.cancer.ie

Radiotherapy to the chest region

Difficulty in swallowing and weight loss: With radiotherapy to your lung or oesophagus (gullet), you may find it hard to swallow solid foods. You may also lose weight as a result. It may help to have a soft, plain diet for a while. If swallowing is very uncomfortable your doctor may prescribe painkillers or liquid medicines or antacids. After about 5 to 8 weeks the discomfort usually disappears.

Cough and shortness of breath: You may notice that you develop a dry cough and some shortness of breath with radiotherapy to your lung or oesophagus. Sometimes this side-effect may not occur until several months after your treatment. Whenever it happens, you should tell your doctor as soon as possible. It is important to report any changes in your breathing at any time during and after your treatment.

Radiotherapy to the abdomen and pelvis

Diarrhoea or constipation: Diarrhoea and constipation are fairly common side-effects of treatment to this region. You may experience stomach cramps and wind also. If diarrhoea persists, you may find that you become weak and tired. Do tell your radiation therapist or nurse as soon as it occurs because your doctor can prescribe medication that slows down your bowel for you. You will be advised to drink lots of fluid during this time and you may also need to make changes to your diet.

Bladder discomfort: Sometimes radiotherapy to your pelvis can cause difficulty with passing urine. This can happen with both internal and external radiotherapy. Your bladder may become inflamed (cystitis) after a number of treatment sessions. This may cause pain, discomfort or a burning sensation while passing urine. You may also feel the urge to pass urine frequently but when you try you can only pass very small amounts or none at all. Occasionally, blood may appear in your urine.

If you notice any of these changes, do tell your doctor, radiation therapist or nurse straight away, especially if you cannot pass urine.



Tips & Hints – bladder problems



- Drink as much fluid as possible to help relieve symptoms.
- Drink cranberry juice or lemon barley water.
- Avoid tea, coffee, carbonated drinks and acidic fruit juices such as orange juice.

Irritation to the ‘back passage’: Radiotherapy can cause irritation or itchiness to your rectum or ‘back passage’ (proctitis). This is a common side-effect if the area being treated is in your lower pelvis, such as for prostate or bladder cancer. Your bowel motions may also become looser or more frequent and you may have bleeding or a slimy mucous discharge from your back passage. As soon as you develop any bowel problems, let your doctor know.

Sexual dysfunction and infertility: For both men and women the side-effects of radiotherapy to your pelvis can include sexual problems. You may experience a lack of erection (impotence) or the lack of desire for sex or intimacy. Infertility may occur in some cases.

During radiotherapy to your pelvis, women will be advised not to have sex. Depending on the radiation dose, their periods may stop as well. Other symptoms such as vaginal itching, burning and dryness can make sex uncomfortable for women. But there are ways to relieve these problems.

Do talk to your doctor or nurse if you are concerned about these matters. Many people find it embarrassing to talk about these sensitive issues, but help is at hand. See page 39 for more details on how radiotherapy can affect your sex life and page 40 for more information on infertility.

Loss of appetite and weight loss: Radiotherapy to your abdomen and pelvis can cause nausea and loss of appetite. This in turn may lead to weight loss. Some people feel sick at the start of a course of treatment but find that nausea disappears within a day or two. Do tell your radiation therapist or your doctor if you suffer from nausea as medication can be given to control it. If eating becomes a problem for you, your dietitian or doctor can advise you. See page 33 for more details on eating and drinking.

How will treatment affect my lifestyle?

You may have to travel some distance to the hospital or radiotherapy centre for your treatment. It is normal to find all the travelling tiring or even exhausting. This can be even harder if you are experiencing some side-effects of treatment as well. Sometimes it may affect your ability to work or look after your family.

Travelling to the radiotherapy centre

Do not be afraid to ask for help if you find travelling too difficult. Ask a family member or friend to drive you there and back. You can also ask your radiation therapist or nurse if you can speak to the medical social worker at the hospital, who may have suggestions and advice for you.

The Irish Cancer Society has two schemes, Travel2Care and Financial Aid, that can help with travelling expenses. See pages 57 and 58 for more details. Your medical social worker, specialist nurse, GP or hospital doctor can apply on your behalf, or any health professional involved in your care.



Tips & Hints – passing the time after radiotherapy

- Bring a book or magazine with you to read.
- Do crossword or other puzzles.
- Bring a radio and listen to your favourite shows.
- Listen to music on a CD player or iPod.
- Take a walk with a friend somewhere quiet and peaceful.

Guest accommodation

Depending on where you live and your circumstances, it may be possible to stay at the hospital in guest accommodation. Your cancer specialist may have to write a letter requesting this service for you. If hospital accommodation is not possible, you might have to arrange bed and breakfast or hotel accommodation nearby. The radiotherapy staff may be able to help with this too. If not, ask a family member or friend to help you, especially if you are unfamiliar with the location of the radiotherapy centre or hospital.

Fatigue and work

The effect of radiotherapy on people tends to vary. Often it depends on your general health and the extent of your treatment. Some find that they can carry on as normal and continue working. They may just prefer to take time off for their treatment sessions and return to work after a nap. Others might find it very tiring and prefer to stay at home and take sick leave from work or school or college. Do not be afraid to ask for help if you feel overwhelmed, especially if you have young children or older parents to care for. Call the National Cancer Helpline 1800 200 700 for a copy of the booklet *Coping with Fatigue*.

Taking exercise

Try to remain active and exercise a little both during and after radiotherapy treatment, even if you do not feel like it. If exercise is impossible, try to remain active in your daily routine. Start gradually if you have not been taking regular exercise before your cancer diagnosis. Regular exercise usually means 30 minutes of moderate activity at least 3–5 times a week. At this level, your heart rate will increase but you should still be able to talk. You can build up to this gradually.

Research shows that there are many benefits to exercise:

- It helps to reduce the symptoms of fatigue, the side-effects of cancer treatments, and improves your overall quality of life.
- Regular exercise builds up your physical fitness level, improves your energy, strength, balance, stamina and co-ordination.
- Regular exercise along with a healthy diet can help reduce the risk of breast cancer and bowel cancer coming back.
- Light exercise encourages your body to release endorphins. These are often called ‘feel good hormones’. When released, they can lift your mood and sense of well-being, and lower stress levels.

Remember a little exercise is better than none. So even a short walk is a good place to start. Your doctor, specialist nurse or physiotherapist can all give you advice. You might also be referred to a physical activity programme. Your nearest cancer support centre may run a physical activity programme or have information about one in your area. See pages 60–64 for a list of cancer support centres.

Relaxation

It is important that you make time for activities that relax you. Stress uses up energy and might make you feel tired. The following suggestions may help you to relax:

- Talk to others about anything that is worrying you. You may find it difficult to talk to family and friends. Ask your doctor to refer you to a counsellor if you think it would be helpful.
- Try to take your mind off your worries by reading, seeing friends and listening to music.
- Take light exercise such as walking.
- If you can, try to avoid situations that make you anxious.

More information on how to cope with fatigue, including more tips on taking exercise and relaxing, is available from the Irish Cancer Society in a booklet called *Coping with Fatigue*. For a free copy, call the National Cancer Helpline on 1800 200 700 or visit a Daffodil Centre. You can also download a copy from www.cancer.ie

Will treatment affect my sex life?

Some people go through radiotherapy with no change to their sex lives at all. Others find that their sex lives are temporarily or permanently changed in some way due to treatment. There is no medical reason to stop having sex during radiotherapy, unless you are receiving treatment to your pelvic area and your doctor advises it. For women and partners of women of child-bearing age, it is important to take good contraceptive precautions while having radiotherapy. Before treatment, talk to your doctor about reliable methods of contraception that you can use.

➤➤➤ You might have no interest in sex or intimacy while dealing with the side-effects of treatment.

You might lose interest in sex or intimacy while dealing with the side-effects of treatment, such as fatigue, nausea or anxiety. Once you return to your usual routine after radiotherapy, your interest in sex is likely to return. If it does not, your doctor may suggest some specialist help.

Sharing your worries



If you are worried that radiotherapy could affect your sex life, discuss it with your radiation oncologist before your treatment begins. He or she can tell you about any likely side-effects of treatment. You can then talk about the main effects of these, if any, on your sex life. You need to know about all aspects of your treatment, and if sex is important to you, it matters that you are fully aware of any possible changes.

If you have a supportive partner, talking about your feelings may help ease your anxiety. Even if you do not feel like having sex, you can still enjoy a close and loving relationship with your partner. You should not feel guilty or embarrassed about talking to your doctor, nurse or radiation therapist about what is troubling you. Your doctor may refer you for specialist counselling, if you think that would be helpful.

Will treatment affect my fertility?

Most radiotherapy treatment has no affect on your ability to have children unless your ovaries or testicles are in the area being treated.

Female fertility

Many healthy babies are born to women who have had radiotherapy. However, if your ovaries cannot be excluded from the radiation area, temporary or permanent infertility is likely. This can be very upsetting for younger women who want a family.

If you are a woman in your childbearing years, it is important to discuss contraception and fertility issues with your doctor. You will be strongly advised to use a reliable method of contraception throughout your treatment and until all the effects of treatment have disappeared.

If there is a risk that your radiotherapy treatment will cause long-term infertility, you have the option of freezing your eggs before treatment begins. Rotunda IVF at the Rotunda Hospital in Dublin provides a service where eggs can be frozen. Talk to your cancer specialist about

this service or call the National Cancer Helpline 1800 200 700 for more information or for advice in confidence.

Male fertility

Sperm can be reduced and damaged if your testicles are in the area being treated by radiation. For example, treatment for prostate or bladder cancers. This can lead to temporary or permanent infertility. Fortunately, it is usually possible to avoid giving radiotherapy to the testicles in cancers most commonly found in younger men. Many men go on to father healthy babies after treatment for radiotherapy.

If you are sexually active and your partner is still of child-bearing years, you must use a reliable method of contraception throughout your treatment and for some time afterwards. It is important too that you discuss with your partner and your doctor contraception and fertility issues. Naturally, you may want to get started on treatment straightaway but you should be aware of the risks of radiotherapy.

It is sometimes possible to store sperm before you have radiotherapy. The sperm can then be used at a later date. Rotunda IVF at the Rotunda Hospital in Dublin provides a service where sperm can be frozen. Call the National Cancer Helpline 1800 200 700 if you would like more information or for advice in confidence.





Research – what is a clinical trial?



Research into new ways of delivering radiotherapy and reducing side-effects goes on all the time, in Ireland and worldwide. The types of research look at how, when and where radiotherapy can be given and the dosage.

Many patients with cancer take part in research studies. Your doctor may ask you to try a new radiotherapy treatment. There are many benefits in doing this. You will be helping to improve knowledge about cancer and radiotherapy. You will also be carefully checked during and after the study, so you will be quite safe.

You cannot be included in a clinical trial without your permission. If you decide not to take part, you will still be given the best treatment available.

For more information on clinical trials, see the Irish Cancer Society's factsheet *Cancer and Clinical Trials*. For a free copy, call the National Cancer Helpline on 1800 200 700, visit a Daffodil Centre or download a copy from www.cancer.ie

Cancer and complementary therapies

Complementary treatments for cancer are treatments that can be given alongside standard medical treatment. For example, yoga, massage or acupuncture. Many people find them helpful during their illness. They may help you cope better with the physical side-effects of cancer and the distressing emotions that it can often bring. These days complementary therapies are often provided in hospitals, cancer treatment centres and support centres and can be given safely. However, it is important to tell your doctor if you are thinking of having, or having a complementary therapy.

Alternative therapies

Alternative therapies are generally treatments used **instead of** conventional treatments. These therapies include diet therapy,

megavitamin therapy and herbalism. Alternative therapies have not been scientifically proven. Some alternative therapies may even harm your health. Always talk to your doctor if you are considering an alternative to conventional treatment.

If you are thinking of complementary therapy ...

Always talk to your doctor if you are thinking of having, or having, any alternative or complementary therapy. More information is available in a free booklet from the Irish Cancer Society called *Understanding Cancer and Complementary Therapies: A Guide for Cancer Patients*. If you would like a copy or for more advice, call the National Cancer Helpline on 1800 200 700 or visit a Daffodil Centre. You can also download a copy from www.cancer.ie

Life after radiotherapy

When treatment finishes many people look forward to life returning to normal. But it may also bring mixed feelings. You may be delighted, even exhilarated, but you might also feel a little low. This can seem confusing but it is normal.

By this time you will have become used to your routine of hospital visits. The end of treatment brings changes and a new routine that needs adjusting to – back to work, school or college. You may find that you miss the regular contact with the people who looked after you during your regular visits to hospital. You may even worry about the cancer coming back. For some people, it is only when the treatment is over that they reflect on what they have been through.

You may be surprised at how long it takes to regain your strength and get back to normal. It can take some months, if not a year, to get over the effects of treatment. You may still feel tired and lacking in energy for many months after treatment has ended.

Health-wise, there are things that you can do to speed up your recovery. They can help you to have a good quality of life in the future.

- Attend all follow-up visits to your doctors.
- Get enough rest.
- Eat well.
- Recognise your needs.
- Identify sources of stress.
- Talk about your problems.
- Set aside time for relaxation and leisure.
- Plan ahead.
- Decide what is important to you.
- Use local resources such as support groups and centres.
- Explore complementary therapies.
- Give yourself rewards or treats.

Call the National Cancer Helpline 1800 200 700 for useful advice or books on life after cancer.

Follow-up

Follow-up visits to your cancer doctors are very important. They will allow your doctors to check for signs of recurrence of the cancer, or follow up on any side-effects you still have. They will also be able to check for signs of any new effects that may develop after you have finished treatment. It is better to be aware of these as soon as possible so that proper treatment can be given. If you are between check-ups and have a symptom or problem that worries you, let your doctor know, especially if you have one of the following:

- A pain that does not go away, especially if in the same place
- New or unusual lumps or swelling
- Nausea, vomiting, diarrhoea, or loss of appetite
- Unexplained weight loss
- A fever or cough that does not go away
- Unusual rashes, bruises or bleeding
- Any symptom you are concerned about
- Any other warning signs mentioned by your doctor or nurse

Make an appointment to see your doctor as early as possible.

Coping and emotions

How can I cope with my feelings?

After any treatment for cancer it can take a long time to come to terms with your emotions. Not only do you have to cope with the knowledge that you have cancer, but also the physical effects of radiotherapy too.

You may need to take some time off for your treatment as well as time afterwards to recover. Just do as much as you feel like and take plenty of rest. It is not a sign of failure to ask for help or to feel unable to cope on your own. Once other people understand how you are feeling, they can give you more support. *Who Can Ever Understand? – Talking About Your Cancer* is a booklet written for people with cancer and is available from the Irish Cancer Society. For a free copy, call 1800 200 700 or visit your nearest Daffodil Centre. You can also download it from www.cancer.ie

Feelings and emotions

Sometimes you may feel anxious, frustrated, afraid or even depressed by your illness. The disease itself and the effect of radiotherapy on your life may make you feel low. Other times, you may feel nothing or just numb. It is important to know, however, that you are not alone. Many people who have had cancer have experienced similar feelings and emotions.

For other people, the hardest time is when treatment has finished and things are getting back to normal. An end to your hospital visits may make you feel alone. It is important to remember that recovery time varies between people. You may feel you need the most support at this time.

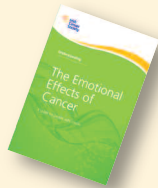
If you are finding it hard to cope

If you feel that low moods are getting the better of you, try to talk about your feelings with someone close to you who is a good listener. You may find it helpful to discuss your feelings with a trained counsellor, a psychotherapist, a leader or a member of your religious faith or a social worker. If you feel comfortable discussing personal worries with your doctor or nurse, they may be able to help you air your feelings and seek further help.

Sometimes, you just may be unable to cope. If you are finding it difficult to get over a period of depression, your doctor may suggest a treatment.

Understanding the Emotional Effects

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 1800 200 700 if you would like a free copy.



How can I cope with my family?

Looking after or supporting a family can be hard work even when you are well. Trying to juggle the roles of father, mother, daughter, son or breadwinner at the same time as coping with cancer and radiotherapy may seem impossible. It is important to be realistic about what you can manage, and to seek help from your partner, family or friends before things become too much for you to cope with.

»»» Be realistic about what you can manage and seek help if you need it.

Depending on your situation, you may need to give up some or all of your responsibilities for a short period of time. That way you can concentrate on yourself and your recovery. If you have strong emotions or anxiety, it may be necessary to give up your role as breadwinner for your family, or carer for an ageing parent, until you feel better. As a parent, you may not be able to do all the things you usually do for your children. This does not mean that you have failed them in any way, but that you must plan your time and save your energy for the most important tasks.

How can I talk to my children?

The main thing to remember is that being honest with your family really helps. Keeping your illness a secret may not be the best thing for your children. It can put added pressures on your family and lead to confusion. Children are very sensitive to stress and tension and if you try to protect them by saying nothing, they may feel isolated. In fact, they may have greater fears if told nothing.

»»» It is best that you or your partner tell your children about your cancer diagnosis.

It is best that you or partner tell your children about your cancer diagnosis. If this is not possible then someone else close to your children should break the news. How much you tell children will depend on their age and level of maturity. A booklet called *Talking to Children about Cancer: A Guide for Parents* gives practical advice for talking to children about cancer. If you would like a copy, call the National Cancer Helpline 1800 200 700. Helpful books for young children are *The Secret C: Straight Talking About Cancer* and *Why Mum? A Small Child with a Big Problem*. See page 65 for more details.





Support resources

Who else can help?

There are many people ready to help you and your family throughout treatment and afterwards.

- Cancer nurse specialists
- Medical social worker
- Psycho-oncology services
- Family doctor (GP)
- Community health services
- Support groups
- Irish Cancer Society

Cancer nurse specialists: Some of the major cancer treatment hospitals have oncology liaison nurses and/or cancer nurse coordinators. These specially trained nurses can support you and your family from the time of diagnosis and throughout treatment. The nurses work along with other members of your medical team to meet your needs.

Medical social worker: The medical social worker in your hospital can help in many ways. He or she can give support and counselling to you and your family and give advice on practical and financial support and services available when you go home.

Psycho-oncology services: In some larger hospitals there are special units that provide psycho-oncology services. This means that you can receive psychological care and support during your diagnosis, treatment and recovery by a team of experts. Usually the team consists of psychiatrists, clinical psychologists and nurses working closely together.

GP (family doctor): You may feel comfortable talking to your family doctor (GP) about your cancer too. He or she can discuss any of your queries and offer advice and support.

Community health services: There are various community health services available from your local health centre. These centres have public health nurses (who can visit you at home), welfare officers and

home-help organisers. If you live far from your hospital, your community welfare officer can also help with practical issues such as financial problems or exceptional needs. More information on the services is available either from the medical social worker in your hospital before you go home or at your local health centre.

Support groups: Joining a support group can put you in touch with people who have been in a similar situation. They can give you practical advice about living with cancer. Cancer support groups and centres are found in most counties in Ireland and can offer a wide range of services. Some are listed at the back of this booklet. You can search for a support group on www.cancer.ie.

Irish Cancer Society: The staff of the Cancer Information Service will be happy to discuss any concerns you or your family may have, at any stage of your illness. This can range from treatment information to practical advice about financial matters. Call the National Cancer Helpline on 1800 200 700 or visit a Daffodil Centre for information about any of the services outlined above or for support services in your area.

>>> Remember that there are many people ready to help you.

Health cover

Health cover falls into two categories – cover for medical card holders and cover for all other categories. Details of the following are given here:

- Hospital cover
- GP visit card
- Benefits and allowances
- Outpatient cover
- Drug Payments Scheme (DPS)
- Medical card
- Private healthcare cover

At the end of this section there are also some useful telephone numbers and addresses for further help.

Hospital cover

At present, everyone is entitled to hospital inpatient services in a public ward in a public hospital. There is a €75 a night charge up to a limit of €750 in 1 year. These charges do not apply to medical card holders. Higher rates apply for semi-private or private care.

Outpatient cover

If you go to the accident and emergency department of a public hospital without being referred there by a GP, you will be charged €100. There is no charge if you have a medical card or are admitted to hospital because of attending the accident and emergency department first.

The €100 charge applies to the first visit in relation to an illness or accident. If you have to return for further visits to an outpatient clinic in relation to the same illness or accident, you should not have to pay the charge again.

Medical card

A medical card usually allows you, your spouse and any child under 16 to free GP services, prescribed drugs and medicines, inpatient public hospital services as well as outpatient services and medical appliances. You will have to pay a prescription charge of €2.50 per item up to a limit of €25 per family per month.

To qualify for a medical card depends on a means test regardless of age. If you are over 70 and your weekly income is €500 or less (€900 for couples), you can still apply for a card. Financial guidelines are set out each year and are available from your local Health Service Executive (HSE) office. If your means are above but close to the guidelines, you should apply for a card anyway as a card may be granted in some situations. For example, if you have a large amount of medical expenses. This is known as a discretionary medical card.

If you wish to apply for a medical card, you can download an application form and apply online (www.medicalcard.ie) or at your local health centre. LoCall 1890 252 919.

GP visit card

If you do not qualify for a full medical card, you may be eligible for a GP visit card. This card covers visits to your doctor only and you will have to pay for drugs, outpatient/inpatient charges and medical appliances yourself. It is means tested but will take into account your after-tax income and certain expenses like childcare, rent/mortgage and travel to work. Check with the medical social worker at the hospital or your HSE office to see if you are eligible. If you wish to apply for a GP visit card, you can download an application form and apply online (www.medicalcard.ie) or at your local health centre. LoCall 1890 252 919.

Drugs Payment Scheme

Under the Drugs Payment Scheme (DPS), individuals and families, including spouses and dependent children, pay a limit of €144 each month to cover the cost of prescribed drugs, medicines and appliances. You can apply for cover under the scheme by contacting your local HSE office or your local pharmacy.

Private healthcare cover

Private health insurance is used to pay for private care in hospital or from various specialists in hospitals or in their practices. In Ireland, this is available through the VHI, Laya Healthcare, AVIVA Health, GloHealth, and other schemes. They provide cover for day care/inpatient treatment and hospital outpatient treatment. Before attending hospital, it is best to check the level of cover provided by your insurance company, both for inpatient and outpatient services.

If you have private insurance, you may not always be able to have your tests done as quickly as you would like. Your health insurer has to approve some tests in advance. For example, MRI and PET scans. In some cases, it may take 24–48 hours to get approval from your health insurer.

Benefits and allowances

You or a family member may qualify for a number of benefits and allowances. For example: Illness Benefit, Disability Allowance, Invalidity Pension, Carer's Allowance, Carer's Benefit, Carer's Leave.

More information on these is available in a booklet called *Managing the Financial Impact of Cancer: A Guide for Patients and Their Families*. For a free copy, contact the National Cancer Helpline on 1800 200 700 or visit a Daffodil Centre. You can also download it from www.cancer.ie



Application forms for the benefits are available from social welfare offices or the Social Welfare Services Office, Government Buildings, Ballinalee Road, Longford. Tel: (043) 334 0000 or LoCall 1890 927 770. You can also download the forms from websites such as www.welfare.ie or www.citizensinformation.ie

Appliances

If you have a medical card most appliances such as wigs and prostheses are free of charge or subsidised. The subsidy will depend on the HSE area. For further information, contact your local HSE office.

Travel to hospital

You may be faced with many expenses including travelling to and from hospital. If your travel costs are very expensive, discuss it with your medical social worker at the hospital. Limited help may also be available from your community welfare officer. Some HSE areas provide transport services to hospitals for outpatient appointments and day centres, usually for patients with medical cards.

See pages 57 and 58 for information on the Care to Drive and Travel2Care schemes run by the Irish Cancer Society. Some local communities may also provide volunteer transport services.

Further information

Depending on your circumstances at the time of your illness, there are many other benefits and entitlements that may be relevant to you. Always have your PPS number (old RSI number) to hand when you are enquiring about entitlements and benefits. The most direct way to check your eligibility is to contact:

- Your community welfare officer in your local health centre
- The medical social worker in the hospital you are attending.

For social welfare queries, contact:

Dept of Social Protection – Information Service

Oisín House Tel: 1850 662 244 Email: info@welfare.ie
212–213 Pearse Street Leaflet line: Website: www.welfare.ie
Dublin 2 1890 202 325

For queries about local health and social services, contact the HSE.
HSE infoline: 1850 24 1850 **Email:** info@hse.ie **Website:** www.hse.ie

Information is also available from your local Citizens Information Centre. A list of these centres is available from:

Citizens Information

Tel: 0761 07 4000 **Email:** information@citizensinformation.ie
Website: www.citizensinformation.ie



If you have financial worries...



A diagnosis of cancer can sometimes bring the added burden of financial worries. You may find that you have a lot more expenses, like medication, travel, food, heating, laundry, clothing and childcare costs.

If you are unable to work or unemployed, this may cause even more stress. It may be hard for you to deal with cancer if you are worried about providing for your family and keeping a roof over your head.

There is help available if you find it hard to cope with all these expenses. Contact your medical social worker in the hospital or your local health centre for advice. The Irish Cancer Society can also in certain cases give some assistance towards travel costs and other expenses because of your illness. See page 57 for more details. You can also call the National Cancer Helpline on 1800 200 700 or visit a Daffodil Centre and the nurse will suggest ways to help you manage.

If you feel you are getting into debt or are in debt, there is help available. Contact the Money Advice and Budgeting Service on the MABS Helpline 0761 07 2000. This service can help you work through any financial issues you have. They can assess your situation, work out your budget, help you deal with your debts and manage your payments. The service is free and confidential. See page 59 for contact details. A useful book for preparing low-budget nutritious meals is *101+ Square Meals*. See page 65 for more information.

Irish Cancer Society Services

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

- Cancer Information Service (CIS)
- Daffodil Centres
- Cancer support services
- Survivors Supporting Survivors
- Counselling
- Night nursing
- Cancer information booklets and factsheets
- 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 freefone 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.

- The website **www.cancer.ie** provides information on all aspects of cancer.
- 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 **walk-in caller service** allows anyone with concerns about cancer to freely visit the Society to discuss them in private.
- Find us on **Facebook** and follow us on **Twitter** (@IrishCancerSoc).

Daffodil Centres

Daffodil Centres are located in a number of Irish hospitals. These 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 services

The Irish Cancer Society funds a range of services set up to support you and your family at time of diagnosis, throughout treatment and afterwards. See pages 59–63 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 peer support to people who have been diagnosed with cancer. All of the volunteers have had a cancer diagnosis and have been carefully selected and trained to give you support, practical information and reassurance when you need it most. You can speak to someone who really knows what you are going through. If you would like to make contact with a volunteer, please 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 on 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.

Cancer information booklets and factsheets

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



Financial support

A diagnosis of cancer can bring with it the added burden of financial worries. In certain circumstances the Irish Cancer Society may be able to provide limited financial help to patients in need through schemes such as Travel2Care and Financial Aid.

Travel2Care: Travel2Care can help with your travel costs if you have genuine financial hardship due to travelling over 50 kilometres to a rapid access diagnostic clinic for tests or to a designated cancer centre or approved satellite centre for cancer treatment. The scheme is funded by the National Cancer Control Programme (NCCP) and managed by the Irish Cancer Society. Travel2Care can help with some of the costs of public transport, such as trains or buses, private transport costs, or petrol expenses.

If this applies to you, contact the medical social work department in your hospital or speak to your cancer care nurse. You can also contact the Irish Cancer Society on (01) 231 6643 / 231 6619 or email: travel2care@irishcancer.ie

Financial Aid: A special fund has been created to help families experiencing financial difficulty as a result of cancer. If this applies to you, contact the medical social work department in your hospital. You can also speak to your cancer care nurse or contact the Irish Cancer Society at (01) 231 6619.

Care to Drive service

Care to Drive is a scheme operated by the Irish Cancer Society. It provides free transport for patients to and from their treatments delivered by 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 to find out if Care to Drive is available in your hospital.



If you would like more information on any of the above services, call the National Cancer Helpline on 1800 200 700 or visit a Daffodil Centre.



Useful organisations

Irish Cancer Society

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

The Carers Association

Market Square
Tullamore
Co Offaly
Freefone: 1800 240 724
Email: info@carersireland.com

Citizens Information

Tel: 0761 07 4000
Email:
information@citizensinformation.ie
Website: www.citizensinformation.ie

Get Ireland Active: Promoting Physical Activity in Ireland

Website: www.getirelandactive.ie

Health Promotion HSE

Website: www.healthpromotion.ie

All Ireland Co-operative Oncology Research Group

Website: www.icorg.ie

Irish Nutrition & Dietetic Institute

Ashgrove House
Kill Avenue
Dún Laoghaire
Co Dublin
Tel: 01 280 4839
Email: info@indi.ie
Website: www.indi.ie

Irish Oncology and Haematology Social Workers Group

Website:
<http://socialworkandcancer.com>

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

Rotunda IVF

Rotunda Hospital
Parnell Square
Dublin 1
Tel: 01 807 2732
Email: info@hari.ie
Website: www.hari.ie

Health insurers

AVIVA 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

Laya Healthcare

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

National support services**Survivors Supporting Survivors**

Irish Cancer Society
43/45 Northumberland Road
Dublin 4
National Cancer Helpline: 1800 200 700
Email: support@irishcancer.ie
Website: www.cancer.ie

ARC Cancer Support Centres Dublin

[See page 61]

Brain Tumour Support Group

Medical Social Work Department
St Luke's Hospital
Highfield Road
Rathgar
Dublin 6
Tel: 01 406 5295

Canteen Ireland [Teenage cancer support]

Carmichael Centre
North Brunswick Street
Dublin 7
Tel: 01 872 2012
Email: info@canteen.ie
Website: www.canteen.ie

Cancer Support Sanctuary LARCC

[See page 61]

Connaught support services**Athenry Cancer Care**

Social Service Centre
New Line
Athenry
Co Galway
Tel: 091 844 319 / 087 412 8080
Email: athenrycancercare@gmail.com
Website: www.athenrycancercare.com

Ballinasloe Cancer Support Centre

Main Street
Ballinasloe
Co Galway
Tel: 090 964 3431
Email: ballinasloecancer@yahoo.co.uk

Cara Iorrais Cancer Support Centre

2 Church Street
Belmullet
Co Mayo
Tel: 097 20590 / 087 391 8573
Email: caraiorrais@gmail.com

East Galway & Midlands Cancer Support

Cluain Mhuire
Brackernagh
Ballinasloe
Co Galway
Tel: 090 964 2088 / 087 984 0304
Email: info@egmcancersupport.com
Website: www.eastgalwaycancersupport.com

Gort Cancer Support Group

Garrabeg
Gort
Co Galway
Tel: 091 648 606 / 086 172 4500
Email: info@gortcancersupport.ie
Website: www.gortcancersupport.ie

Hand in Hand

[Children's Cancer Support Centre]
Main Street
Oranmore
Co Galway
Tel: 091 799 759
Email: info@handinhand.ie
Website: www.handinhand.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: info@vitahouse.org

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 services**Aoibheann's Pink Tie**

[Supporting children with cancer]
Unit 22
Docklands Innovation Centre
128- 130 East Wall Road
Dublin 3
Tel: 01 240 1300
Email: aoibheannspinktie2@gmail.com
Website: www.aoibheannspinktie.ie

ARC Cancer Support Centre

ARC House
65 Eccles Street
Dublin 7
Tel: 01 830 7333
Email: info@arccancersupport.ie
Website: www.arccancersupport.ie

ARC Cancer Support Centre

ARC House
559 South Circular Road
Dublin 8
Tel: 01 707 8880
Email: info@arccancersupport.ie
Website: www.arccancersupport.ie

Arklow Cancer Support Group

25 Kings Hill
Arklow
Co Wicklow
Tel: 0402 23590 / 085 110 0066
Email: info@arklowcancersupport.com
Website: www.arklowcancersupport.com

Balbriggan Cancer Support Group

Unit 23, Balbriggan Business Park
Harry Reynold's Road
Balbriggan
Co Dublin
Tel: 087 353 2872 / 086 164 2234

Cancer Support Sanctuary LARCC

Coole Road
Multyfarnham
Mullingar
Co Westmeath
Tel: 044 937 1971
CallSave: 1850 719 719
Email: info@cancersupport.ie
Website: www.cancersupport.ie

Cara Cancer Support Centre

7 William's Place
Dundalk
Co Louth
Tel: 042 937 4905
Mobile: 087 395 5335
Email: info@ccscdundalk.ie
Website: ccscdundalk.ie

Cois Nore Cancer Support Centre

8 Walkin Street
Kilkenny
Tel: 056 775 2222
Email: coisnorekilkenny@gmail.com
Website: www.kilkennycancersupport.ie

Cuisle Cancer Support Centre

Block Road
Portlaoise
Co Laois
Tel: 057 868 1492
Email: cuislecentre@eircom.net
Website: www.cuislecentre.com

Dóchas: Offaly Cancer Support Group

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

Dublin West Cancer Support Group

Generic Social Work Department
Oak Unit
Cherry Orchard Hospital
Ballyfermot
Dublin 10
Tel: 01 620 6273
Email: martina.mcGovern2@hse.ie/
noreen.obrien4@hse.ie

Éist Carlow Cancer Support Centre

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

Gary Kelly Cancer Support Centre

George's Street
Drogheda
Co Louth
Tel: 041 980 5100
Email: info@gkccancersupport.com
Website: www.gkccancersupport.com

Greystones Cancer Support

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

Hope Cancer Support Centre

22 Weafer Street
Enniscorthy
Co Wexford
Tel: 053 923 8555
Email: info@hopesupportcentre.ie
Website: www.hopesupportcentre.ie

Tallaght Cancer Support Group

Trustus House
1-2 Main Street
Tallaght
Dublin 24
Tel: 086 400 2736
Email: ctallaght@yahoo.ie
Website: tallaghtcancersupport.com

Wicklow Cancer Support Centre

Rear of Butler's Medical Hall
Abbey Street
Wicklow
Tel: 0404 32696
Email: wicklowcancersupport@gmail.com

Munster support services**Cancer Information & Support Centre**

University Hospital Limerick
Dooradoyle
Co Limerick
Tel: 061 485 163
Website: www.midwesterncancercentre.ie

CARE Cancer Support Centre

14 Wellington Street
Clonmel
Co Tipperary
Tel: 052 618 2667
Email: caresupport@eircom.net
Website: www.cancercare.ie

Cork ARC Cancer Support House

Cliffdale
5 O'Donovan Rossa Road
Cork
Tel: 021 427 6688
Email: info@corkcancersupport.ie
Website: www.corkcancersupport.ie

Cuan House Cancer Support Centre

24 Gort Aoibhinn
Cork Hill
Youghal
Co Cork
Tel: 024 92353

Kerry Cancer Support Group

Acorn Centre
124 Tralee Townhouse Apartments
Maine Street
Tralee
Co Kerry
Tel: 066 719 5560 / 087 230 8734
Email: kerrycancersupportgroup@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.com

Solas Centre

South Eastern Cancer Foundation
Williamstown
Waterford
Tel: 051 304 604
Email: info@solascentre.ie
Website: www.solascentre.ie

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

Ulster support services**Coiste Scaoil Saor Ó Ailse**

C/O Ionad Níomh Padraig
Upper Dore
Bunbeg
Letterkenny
Co Donegal
Tel: 074 953 2949
Email: ionadnp@eircom.net
Website: www.scaoilsaor.ie

Crocus: Monaghan Cancer Support Centre

The Wellness Centre
19 The Grange
Plantation Walk
Monaghan
Tel: 087 368 0965 / 047 62565
Email: crocus.2011@yahoo.com

Cuan Cancer Social Support and Wellness Group

2nd Floor, Cootehill Credit Union
22-24 Market Street
Cootehill
Co Cavan
Tel: 086 455 6632

Other support services**The Bella Rose Foundation**

Merry Maid House
West Park Campus
Garter's Lane
Citywest
Dublin 24
Tel: 087 320 3201
Email:
thebellarosefoundation@gmail.com
Website: www.bellarose.ie

Cancer Care West

72 Seamus Quirke Road
Galway
Tel: 091 545 000
Email: info@cancercarewest.ie
Website: www.cancercarewest.ie

Cúnamh: Bons Secours Cancer Support Group

Bon Secours Hospital
College Road
Cork
Tel: 021 480 1676
Website: www.cunamh.ie

Dundalk Cancer Support Group

Philipstown
Hackballscross
Dundalk
Co Louth
Tel: 086 107 4257

The Forge Cancer Support Service

The Forge Family Resource Centre
Pettigo
Co Donegal
Tel: 071 986 1924
Email: theforgefrcc@eircom.net

Killybegs Cancer Support Group

Kille
Kilcar
Co Donegal
Tel: 074 973 1292
Email: riverbankdunne@eircom.net

Newbridge Cancer Support Group

Tel: 083 360 9898
Email:
newbridgescancerhealinghelp@gmail.com

Purple House – Cancer Support

Aubrey Court
Parnell Road
Bray
Co Wicklow
Tel: 01 286 6966
Email: info@purplehouse.ie
Website: www.braycancersupport.ie

Rathdrum Cancer Support Group

St Anne's
Lower Street
Rathdrum
Co Wicklow
Tel: 087 292 8660
Email: rathcan@gmail.com

Sláinte an Chláir: Clare Cancer Support

Tír Mhuire
Kilnamona
Ennis
Co Clare
Tel: 1850 211 630
Email: admin@clarecancersupport.com
Website: www.clarecancersupport.com

Solace: Donegal Cancer Support Centre

St Joseph's Avenue
Donegal Town
Tel: 074 974 0837
Email: solacedonegal@eircom.net

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
Email: hello@cancerfocusni.org
Website: www.cancerfocusni.org

Cancer Network Buddies

Website: www.cancerbuddiesnetwork.org

Cancer Research UK

Tel: 0044 20 7242 0200
Website: www.cancerhelp.org.uk

Healthtalkonline

Website: www.healthtalk.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
Website: www.cancerni.net

National Cancer Institute (US)

Website: www.nci.nih.gov

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

Helpful books**Free booklets from the Irish Cancer Society:**

- *Understanding Radiotherapy*
- *Understanding Chemotherapy*
- *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*
- *A Time to Care: Caring for Someone Seriously Ill at Home*
- *Managing the Financial Impact of Cancer: A Guide for Patients and their Families*
- *Journey Journal: Keeping Track of Your Cancer Treatment*

**Radiotherapy Treatment Information Booklets**

[A suite of patient information booklets describing radiation treatments available from St Luke's Radiation Oncology Network]
Download from www.stlukesnetwork.ie

Cancer at Your Fingertips

Val Speechley & Maxine Rosenfeld
Class Publishing, 2001
ISBN 1859590365

Challenging Cancer: Fighting Back, Taking Control, Finding Options

Maurice Slevin & Nira Kfir
Class Publishing, 2002
ISBN 1859590683

The Chemotherapy and Radiation Therapy Survival Guide: Information, Suggestions, and Support to Help You Get through Treatment

Judith McKay, Nancee Hirano & Myles E Lampenfeld
New Harbinger, 1998
ISBN 1572240709

Taking Control of Cancer

Beverly van der Molen
Class Publishing, 2003
ISBN 1859590918

Explaining cancer to children**The Secret C: Straight Talking About Cancer**

Julie A Stokes
Winston's Wish, 2000
ISBN 0953912302

Why Mum? A Small Child with a Big Problem

Catherine Thornton
Veritas, 2005
ISBN 1853908916

Helpful DVD**Understanding Radiation Therapy: A Patient Pathway**

Available to view at www.cancer.ie

What does that word mean?

Adjuvant treatment	Radiotherapy or chemotherapy given soon after surgery when a diagnosis of cancer is made.
Alopecia	Loss of hair. No hair where you normally have hair.
Brachytherapy	A form of treatment where solid radioactive material is placed inside your body on or near your tumour. Also called internal radiotherapy.
External radiotherapy	A form of treatment using a machine that aims high-energy rays at a specific part of your body. Also called external beam radiotherapy. See linear accelerator.
Fraction	A single dose of radiotherapy treatment.
Implant	A radioactive material placed inside your body on or near a tumour. It can consist of tubes, wires or seeds and may be temporary or permanent. See also brachytherapy.
Internal radiotherapy	A form of treatment using either solid radioactive material close to or inside your tumour (brachytherapy) or as a radioactive liquid, given either by mouth or as an injection into a vein.
Linac	Short name for a linear accelerator.
Linear accelerator	A machine that uses electricity to create high-energy radiation to treat cancers with great accuracy.

Mould	A mask made from either clear plastic (Perspex) or thermoplastic to prevent movement of your head and shoulders during treatment. Sometimes the mould is called a mask, orfit or shell.
Neo-adjuvant treatment	Radiotherapy or chemotherapy that can be given before surgery to shrink the size of a tumour.
Palliative radiotherapy	A form of radiation treatment that aims to shrink tumours and relieve your pain or other symptoms. It does not cure cancer but can help to make you comfortable and improve your quality of life.
Radiation oncologist	A medical doctor who specialises in treating cancer patients using radiotherapy.
Radiation therapist	A healthcare professional specially trained in the planning, delivery and monitoring of radiation therapy.
Radical treatment	A form of treatment where the main aim is to cure cancer and give long-term benefits.
Radioactive/radioactivity	When radiation is released from high-energy particles.
Radionuclide	A radioactive liquid or capsule used in very specific cases. For example, cancer of the thyroid. Sometimes referred to as a radioisotope.
Radiotherapy	A form of cancer treatment using careful and precise doses of radiation.
Staging	Tests that measure the size and extent of cancer.

Tattoo	Very small marks made on your skin with dark permanent ink. These show where the radiation beam is to be aimed during treatment, and for setting patients up and placing them in the correct position for treatment.
Treatment field (area)	The area of your body that will be treated. The radiation beam will not be aimed outside this area.
Vacuum bag	A special bag (like a bean bag), which helps you to stay in the same position for your radiotherapy treatment.
X-rays	Radiation used in low doses to diagnose disease and in high doses to treat cancer and other diseases. It is painless.



Questions to ask your doctor

Here is a list of questions you might like to ask. Do ask questions as it is always better to ask than to worry.

- Why do I need radiotherapy?
- How successful is radiotherapy for my cancer?
- How long will my treatment take?
- How long will I have to wait before starting treatment?
- If there is a delay in treatment, will my cancer get worse or will the treatment be less successful?
- Do I have to stay in hospital for radiotherapy?
- What side-effects or after-effects will I have?
- Will I be radioactive?
- Do I need to take any precautions at home?
- Do I need to use contraception during my radiotherapy treatment?
- I already have problems with my health. Will radiotherapy make them worse?
- Do I need to make any changes to my diet, job, lifestyle?
- How will my doctor know if my treatment has worked?

Your own questions

1 _____

Answer _____

2 _____

Answer _____

3 _____

Answer _____

4 _____

Answer _____

5 _____

Answer _____



Notes

Acknowledgements

We would like to extend a special word of thanks to the following for their invaluable contributions to this booklet and/or previous editions:

Jennifer Ledwith, Cancer Information Nurse

Helen Buckley, Clinical Nurse Specialist Oncology

Caragh Miller, Clinical Specialist Radiotherapist

Mary Kissane, Radiation Therapist

Antoinette Walker, Patient Education Editor

Phil Sutton, Radiation Therapist

Special thanks also go to Siemens Ireland and Elekta for permission to reproduce images of radiotherapy equipment in this booklet.

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 phone our National Cancer Helpline 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**

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National Cancer Helpline Freefone 1800 200 700

Open Monday to Thursday 9am to 7pm

Friday 9am to 5pm

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