Understanding Radiotherapy

Caring for people with cancer
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 quickly.

Specialist nurse Tel:
Radiation therapist Tel:
Radiation oncologist Tel:
Medical oncologist Tel:
Surgeon Tel:
Family doctor (GP) Tel:
Emergency Tel Tel:

If you like, you can also add:
Your name
Address
The Irish Cancer Society is the national charity for cancer care, dedicated to eliminating cancer as a major health problem and to improving the lives of those living with cancer. This booklet has been produced by Nursing Services in 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.

EDITOR
Antoinette Walker

HEALTHCARE ADVISERS
Prof John Armstrong, Consultant Radiation Oncologist (Chairman, Irish Cancer Society)
Dr Michael Maher, Consultant Radiation Oncologist
Dr Eleanor O’Sullivan, Lecturer in Oral Medicine and Oral Surgery
Phil Sutton, Radiation Therapist
Derry Little, Radiation Therapist
Eugene Farrell, Radiation Therapist
Kay Leonard, Advanced Nurse Practitioner Candidate

SERIES EDITOR
Joan Kelly, Nursing Services Manager

Published in Ireland by the Irish Cancer Society.
© Irish Cancer Society 2005, revised 2007
Next revise: 2009

All rights reserved. No part of this publication may be reproduced or transmitted, in any form or by any means, electronic or mechanical, including photocopying, recording or any information storage and retrieval system, without permission in writing from the Irish Cancer Society.

ISBN 0-95323-690-1

Contents

4 Introduction
5 What does that word mean?

Before treatment
7 What is radiotherapy?
9 How is radiotherapy given?
11 Why is radiotherapy given?
12 When is radiotherapy given?
13 Where is radiotherapy given?

Treatment and side-effects
17 External radiotherapy
25 Internal radiotherapy – brachytherapy
29 What side-effects can I expect?
44 How will treatment affect my lifestyle?
45 Will treatment affect my sex life?
48 Will treatment affect my fertility?
50 Research – what is a clinical trial?
51 Cancer and complementary therapies
53 Life after radiotherapy

Coping and emotions
55 How to cope with your feelings
57 How can I cope with my family?
59 How can my family and friends help?

Support resources
61 Who else can help?
62 Health cover
69 Irish Cancer Society services
72 Useful organisations
76 Helpful books/DVD
77 Frequently asked questions
78 Your own questions
Introduction

This booklet has been written to help you understand more about radiotherapy.

Radiotherapy may be given as **external** treatment or as **internal** treatment. The information in this booklet is divided into sections on both of these types of radiotherapy, what they involve and how to manage some of their more common side-effects. 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 that you may have about radiotherapy. However, treatment practices may vary a little between doctors, hospitals or treatment centres. You are likely to have questions and concerns about your own treatment which this booklet may not answer. It is best to discuss details of your own treatment with your doctor.

The booklet also addresses some of the feelings you and those close to you may have when a diagnosis of cancer is made. At the end of the booklet you will find a list of books that are useful to read. There is also a list of websites and special groups to help and support you at this time.

If reading this booklet helps you, why not pass it on to your family and friends who might find it helpful too. The more they know about your illness, the more they will be able to help you cope when you need them.

Reading this booklet

Read the sections of this booklet that are of interest to you only. Some of the information may not be relevant to your situation.

You may find that there is a lot of information to take in and that it can be hard to concentrate, especially if you are feeling anxious or worried. Remember that you do not need to know everything about radiotherapy straight away. Read a section and when you feel relaxed and want to know more, read another one. 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 1800 200 700, Action Breast Cancer 1800 30 90 40 or the Prostate Cancer Information Service 1800 380 380.

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.

**Brachytherapy**
A form of treatment where solid radioactive material is placed inside your body on or near your tumour. Also called internal radiotherapy.

**Cobalt machine**
A machine that gives high-energy radiation using a radioactive substance called cobalt.

**CT scan**
A test which uses X-rays to see the organs and tissues inside your body on a computer screen.

**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.

**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 (Orfit) to prevent movement of the head and shoulders during treatment. Sometimes the mould is called a mask, orfit or shell.
<table>
<thead>
<tr>
<th><strong>Neo-adjuvant treatment</strong></th>
<th>Radiotherapy that can be given before surgery to shrink the size of a tumour.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Palliative radiotherapy</strong></td>
<td>A form of radiation treatment that aims to shrink tumours and relieve pain or other symptoms. It does not cure cancer but can help to make you comfortable and improve your quality of life.</td>
</tr>
<tr>
<td><strong>Radiation oncologist</strong></td>
<td>A medical doctor who specialises in treating cancer patients using radiotherapy.</td>
</tr>
<tr>
<td><strong>Radiation therapist</strong></td>
<td>A therapist specially trained in the planning, delivery and monitoring of radiation therapy.</td>
</tr>
<tr>
<td><strong>Radical treatment</strong></td>
<td>A form of treatment where the main aim is to cure cancer and give long-term benefits.</td>
</tr>
<tr>
<td><strong>Radioactive/radioactivity</strong></td>
<td>When radiation is released from high-energy particles.</td>
</tr>
<tr>
<td><strong>Radionuclide</strong></td>
<td>A radioactive liquid or capsule used in very specific cases, e.g. cancer of the thyroid. Sometimes referred to as a radioisotope.</td>
</tr>
<tr>
<td><strong>Radiotherapy</strong></td>
<td>A form of cancer treatment using careful and precise doses of radiation.</td>
</tr>
<tr>
<td><strong>Simulator</strong></td>
<td>A special X-ray machine used for planning radiotherapy but not used for treatment.</td>
</tr>
<tr>
<td><strong>Staging</strong></td>
<td>Tests that measure the size and extent of cancer.</td>
</tr>
<tr>
<td><strong>Tattoo</strong></td>
<td>Very small marks made on your skin with dark permanent ink. These show where the radiation beam is to be aimed during treatment.</td>
</tr>
<tr>
<td><strong>Treatment field (area)</strong></td>
<td>The area of your body that will be treated. The radiation beam will not be aimed outside this area.</td>
</tr>
<tr>
<td><strong>X-rays</strong></td>
<td>Radiation used in low doses to diagnose disease and in high doses to treat cancer and other diseases.</td>
</tr>
</tbody>
</table>

**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.

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.

Damage to normal cells causes side-effects. Usually the normal tissue recovers quickly and the side-effects do not last long. Sometimes the damage takes longer to repair and the side-effects may be long term.

Radiotherapy is very specific and only affects the area that is being treated, unlike chemotherapy which can affect the cells in your entire body.
How is radiotherapy given?

Radiotherapy can be given in two ways: externally and internally. With external beam radiotherapy, also called external radiotherapy, the radiation comes from special machines which beam X-rays directly at your tumour or the tumour site after surgery. The radiation is also beamed 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

Planning your treatment is a very important step. Your first visit to the radiotherapy unit will be to plan your treatment only. Radiotherapy must be carefully planned so that the maximum dose is given to the tumour area and as little as possible to the surrounding cells.

External radiotherapy

In external radiotherapy an important part of the planning process is simulation. This involves using a special machine to pinpoint the area to be treated, also called the treatment field or area. 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 area will then be marked carefully on your skin. The dose of radiation will be decided and tightly controlled during 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
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 a single dose for palliative treatment. More details on external radiotherapy are found on page 17.

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, e.g. 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 25.

Internal radiotherapy – thyroid cancer

For cancer of the thyroid the radiation source may be an unsealed. 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. Unsealed sources are radioactive until your body gets rid of them. See page 28 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. Radiotherapy can be used to treat many kinds of cancer in most parts of the 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** – to cure cancer and reduce the risk of it recurring.
- **Palliative treatment** – to relieve symptoms such as pain, pressure or bleeding.

Curative treatment

Curative treatment is when the aim of radiotherapy is to cure cancer and prevent its recurrence. It is called radical treatment when it is the primary treatment, e.g. in the case of early cancer of the larynx. In most cases you attend the hospital for one dose each weekday over a period of time (4 to 8 weeks), depending on your situation.

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.
Preparing for bone marrow transplant
For patients with leukaemia radiotherapy may also be given to the entire body. This is part of the preparation for a bone marrow transplant or stem cell transplant. The radiation kills off all bone marrow, including cancer cells, before healthy bone marrow is given back to the patient. This treatment is called total body irradiation.

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. However, 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 29 for more details about side-effects of treatment.

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

 Nowadays 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.

 However, in most cases radiotherapy is given after surgery to prevent the growth of any cancer cells that may 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. If you are receiving chemotherapy at the same time as radiotherapy, you may be brought by taxi or ambulance from your hospital to the radiotherapy unit for treatment. Cancer treatments vary throughout the country, so you may find that there is a different practice in your area to the one mentioned in this booklet.

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, dieticians, speech therapists, medical social workers, clinical psychologists and counsellors.

Cancer Helpline 1800 200 700
In some radiotherapy units there are special radiation therapists who give information and support to patients during their course of radiotherapy.

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

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

**Radiation physicist**: A radiation expert who helps to plan your treatment with the radiation therapy team. He/she makes sure that the equipment is working properly and that the machine delivers the right about of radiation. Most patients do not meet the radiation physicist.

**Dosimetrist**: A specially trained person who plans and calculates the proper radiation dose for your treatment. He/she works closely with the radiation oncologist, physicist and radiation therapist.

**Radiation therapist**: A radiographer who specialises in planning and delivering radiation to patients with cancer and other conditions. He/she will monitor your progress during your treatment, explain any side-effects that may occur and assist with any needs you have during treatment.

**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. He/she 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, he/she will make a special mask so that your head and shoulders can keep still during treatment. He/she works closely with the radiation therapist.

---

**To sum up**

- Radiotherapy is an important 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 in combination with surgery and chemotherapy.
Understanding radiotherapy

Treatment and side-effects

External radiotherapy

Your radiation oncologist may decide that external radiotherapy is the best treatment for you. This involves careful planning beforehand.

How does the doctor plan my treatment?

Your doctor and radiotherapy team will decide the type of treatment machine you need. There are different types available which use different sources, for example, X-rays, an electron beam or cobalt-60 gamma rays. Your doctor will select the one most suitable for your type of cancer. Some machines are better for treating cancers near the skin surface, while others are better for cancers deep inside the body. Linear accelerators, called linacs for short, are most commonly used as they can deliver powerful and precise beams of radiation.

Tests and planning

Before you receive radiotherapy there are many preparations to be made. Planning your treatment may take some weeks – anything from
Your treatment planning will be explained to you, but ask plenty of questions if you are unsure about any part of it.

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.

**Simulation:** Your first visit to the radiotherapy unit will involve a planning session called simulation. This is where the radiation therapist uses a machine to locate your treatment field. This is the exact area of your body where the radiation will be aimed each time. Simulation can last for up to 45 minutes.

You will be asked to lie very still on an examining table so make sure to wear comfortable clothes. Some hospitals may provide gowns. The radiation therapist uses a special X-ray machine called a simulator or CT simulator to define the treatment field. Depending on the location of your cancer, you may have one or more treatment fields. The simulator machine will move around you and can be noisy, but it won’t touch or hurt you at all. Just lie still and breathe normally. During the planning, the lights in the room will be switched off and laser beams will become visible. These laser beams are harmless. They are used to position your treatment field with precision and accuracy.

Your doctors may use your previous X-rays or scans to help them plan your treatment. When you are lying in the treatment position you may need more tests, such as up-to-date CT scans. A CT scan (computerised tomography) is a special type of X-ray that builds up a detailed picture of the tissues inside your body, which can then be seen on a computer. The machine that takes the CT scan looks like a giant doughnut. The scan is not painful but you must lie as still as possible while it is being done. Normally it takes between 10 and 30 minutes.
Understanding radiotherapy

Planning for head and neck cancers

Immobilisation

It may be necessary to make a plastic mould or mask to fit the treated area before treatment is given. The mask ensures that your head and shoulder are kept perfectly still and the radiation delivered accurately each day. Because treatment marks are put on the mask, there is no need to put marks on your skin. The mask may consist of either clear plastic (Perspex) or thermoplastic that prevents you from moving. On your first visit to the radiotherapy unit, you will be taken to the mould room. The technicians and radiation therapists will explain exactly how the mask is made. Sometimes you may have to visit the mould room several times before your treatment can start. The number of visits depends on the type of mask you need.

For the Perspex mask a plaster cast mould is made first. A mould-release cream will be applied to whatever part of your head and neck is to be treated. Next a plaster of Paris bandage will be laid over the top of this to make a mould. This will feel wet and cold. Your mouth and nose will not be covered so you can breathe normally. This takes a few minutes to set and is then removed. When the plaster has set, Perspex is moulded onto the cast and the mask is formed. This mask will fit your face and neck snugly, with holes cut for your eyes, nose and mouth.

Very often a thermoplastic mask is made, which is called an orfit. Warm, wet plastic is stretched over your face and possibly your shoulders. This takes just a few minutes to set.

Making the mask may feel a little frightening or claustrophobic at first. But it only takes a short time. You will only have to wear the mask for a few minutes each time you are being treated.

Dental check-up

If you are to receive radiotherapy to the head and neck, you will need a check-up by a dental specialist beforehand. This is to make sure that any mouth treatment is accurate each time. You may find that the marks rub off a little onto your clothing. However, these marks will wash out of clothes. It is best not to wear good clothes coming for treatment. The radiation therapist will also give you advice on how to care for your skin in the treated area.

Once the treatment plan has been finalised, sometimes the temporary markings will be made permanent. The radiation therapist will mark the treatment field on your skin with tattoos or tiny dots of coloured, permanent ink. The tattoo is really just one small dot and you may need to sign a consent form for this procedure.

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

Once all your tests and planning are completed, you can go home. Your doctor will then meet with the radiation physicists, radiation therapists and the dosimetrist. Together they will 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. A useful DVD called Understanding Radiation Therapy: A Patient Pathway is also available from the Irish Cancer Society. It shows in detail how radiotherapy works and what’s involved. Call 1800 200 700 for a free copy.

Giving your consent for treatment

Before you receive any radiotherapy (external or internal), your doctor may ask you to sign a form or give verbal permission for the hospital staff to give you the treatment. No medical treatment can be given without your consent. 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 alternative 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.

Dental check-up

If you are to receive radiotherapy to the head and neck, you will need a check-up by a dental specialist beforehand. This is to make sure that any mouth
infections or extractions are fully healed before radiotherapy begins. If you have dentures they will also be checked to ensure they are not a source of trauma or infection. Radiotherapy to the head and neck can affect your sense of taste, your ability to make saliva, and the muscles in your mouth. As a result, the dentist will give you advice on how to care for your mouth (oral hygiene), on your diet and any physiotherapy exercises that you may need during radiotherapy. The dentist may also take impressions for a special type of gum shield for you to wear during radiotherapy and/or after radiotherapy to deliver fluoride to the teeth. For more details see page 34.

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 medical treatments you are receiving, such as chemotherapy, surgery, or biological therapy.

This means that 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 required. 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 beams 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 come in to you. If you are wearing a mask, just wave your hand. The machines can be stopped at any time.

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

Cancer Helpline 1800 200 700
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.

**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, the radiation therapist will give you information about who to contact and when.

---

---

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

---

---

**Other techniques in external radiotherapy**
New techniques in external radiotherapy are developing all the time. Ones that are currently available in Ireland include:

**Three-dimensional (3D) conformal radiotherapy**
This technique uses computers to produce an accurate image of the tumour and surrounding organs, so that many radiation beams can be shaped exactly to the shape of the treatment field. Traditionally, this was done by physically placing metal blocks in the path of the radiation beam to alter its shape and match that of the cancer. In recent years a device called a multi-leaf collimator, which uses sheets of metal that can be individually adjusted to match the tumour of each patient, has been used.

---

---

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

The benefit of internal radiotherapy is that a high dose of radiation can be given 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, the radioactive material 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 a
thin wire, tube, seed or capsule. When implants are used, you may hear it referred to as **brachytherapy**. It is used to treat cancers of the

- Head and neck, including mouth and lip
- Breast
- Lung
- Oesophagus, rectum, and bile duct
- Prostate
- Cervix, womb and vagina.

The benefit of internal radiotherapy is that a high dose of radiation can 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 those around you.

**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. He/she will also decide on how the implant will be placed in your body.

**Insertion of applicator or seeds:** In most cases you will be brought to theatre for the applicator or seeds to be inserted 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 the 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 position.

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

- Your type of cancer
- Where it is located
- Your general health
- Any other cancer treatments you have had.
Implants can be given by low-dose rate (LDR) or high-dose rate (HDR). High-dose rate gives a precise dose of radiotherapy directly to the tumour very quickly, but only a low dose to the surrounding normal tissue. High-dose rate is more commonly used nowadays.

Consent: Your doctor may ask you to sign a consent form or give verbal permission 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 20 for information on giving consent.

What happens during treatment?
You will be taken to a special room for treatment. The applicators will be attached to a machine. When the machine is switched on it passes small radioactive sources 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 whether you receive a low-dose rate or a high-dose rate. 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. In general high-dose rate implants are removed after a few minutes. Low-dose rate implants, e.g. used in cancer of the cervix or womb, can stay in for between 6 and 24 hours.

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, radiation therapist and nurse will advise you on any precautions that need to be taken and answer any queries you might have about this type of treatment.

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.
- 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 inserted in theatre.

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 will last for a few weeks. Long-term side-effects may occur after treatment and may sometimes be permanent.
Before treatment, information about the likely side-effects will be given. Your doctor will discuss any possible short- or long-term side-effects with you. The radiotherapy staff will also give you tips on how to deal with them and how they can be relieved. In fact, there are many ways to help with side-effects and reduce any discomfort you might experience. Being aware of the side-effects in advance can help you to cope with them if they arise. Be sure to tell your doctor, nurse or radiation therapist about any symptoms or side-effects that you notice.

What can I do to reduce side-effects?
To make sure that your radiotherapy is as effective as possible and to reduce side-effects, it may help to stop smoking during your course of 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 National Smokers’ Quitline at Callsave 1850 201 203. Advice and help about quitting can also be received 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. 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 are being treated.

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.

For more information on side-effects, call the National Cancer Helpline 1800 200 700, Action Breast Cancer 1800 30 90 40 or the Prostate Cancer Information Service 1800 380 380, and also for a free copy of the DVD Understanding Radiation Therapy: A Patient Pathway.

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

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.

It is not always necessary 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 may be able to 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 for a free copy.

Tips & Hints – fatigue
- Aim to get a good night’s sleep.
- Plan your day so that you get plenty of rest. Build short naps into your daily routine.
- Limit your activities and save your energy for things you enjoy most.
- Accept help from others, particularly with childcare, housework and shopping.
- Light exercise, such as walking, may help with fatigue.

Skin care
People react in all sorts of ways to external radiotherapy and a lot depends on your skin type and the area being treated. Light-skinned people may find that their skin in the treated area becomes red, sore or itchy. Those with dark skin may find that their skin becomes even darker. Or you may have no skin reactions at all.
Skin reactions usually happen after 3 to 4 weeks of treatment. Depending on what part of your body is being treated and the radiation dose, the care of the skin varies. Advice on skin care also tends to vary between hospitals. Some hospitals prefer you not to wash the treated area at all while having treatment. Others may advise you to use only tepid water to wash the area. When drying your skin, you may be told to pat it gently with a soft towel. Continue this for a few weeks after treatment.

At the start of your course 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. Advice will be given if you have any discomfort. 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.

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 or use an electric razor. Do not use shaving lotion or hair removal products on the treated area.
- Wash the area gently with lukewarm water and pat it dry.

Radiotherapy and chemotherapy – changes to your blood

Radiotherapy rarely causes changes to your blood. If you are receiving chemotherapy as part of your treatment as well, you are more likely to experience anaemia, be more at risk of infection, and bleed or bruise easily. The staff at the radiotherapy unit will tell you who to contact and what to do if you become ill at home during the day or at night.
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. Keeping your teeth and dentures in good condition will also improve your appearance, comfort and quality of life.

The kind of mouth problems you might experience include:
- Taste changes
- Dry mouth (xerostomia)
- Sticky mucus
- Soreness of mouth and throat
- Dental problems
- Mouth stiffness.

**Taste changes**: Radiotherapy can affect the taste buds in your mouth. Your sense of taste may be greatly reduced or you may find that food tastes salty, metallic or like cardboard. If this happens, you may lose interest in food and not eat as much as you did before treatment. It’s best to eat little and often. Supplement your meals with high-calorie drinks such as Complan, Build-up, Fortisip or Ensure. If your appetite is poor, ask your nurse or radiation therapist to refer you to a dietician who will monitor your weight and give you further advice. Your taste and appetite should improve greatly once treatment has ended. But in some cases it may take up to 6 or 9 months to recover following radical radiotherapy to the mouth.

**Dry mouth**: After a week or two of treatment 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. This is called xerostomia. The amount of dryness will depend on the overall dose of radiotherapy you receive and the areas treated. You may 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. Avoid very dry food, e.g. crackers, and use sauces or gravy to make food moist and easier to swallow. Lubricate your lips with aqueous cream. There are many types of artificial saliva available which help to keep your mouth moist. Sugar-free chewing gum may help the remaining salivary gland cells to make more saliva.

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. He/she may want to treat you with medication.

Soreness: Your mouth and throat will probably 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 your mouth or throat becomes sore. He/she will prescribe painkillers if you need them. Your doctor or dietician will advise you on how to change your diet to make eating more comfortable.

The mouth/throat may occasionally become too sore to eat or drink during radiotherapy. In this case, you may need to be fed by a nasogastric tube or PEG tube (a tube going directly into your stomach through the muscle wall) for a short while. Within a few weeks of finishing your course of radiotherapy your mouth should be far more comfortable and you should be able to eat well.

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. Decay can happen very quickly and can cause the teeth to break. 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, e.g. 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. This can be as a mouthwash, special toothpaste or in a special gum shield made by your dentist. If you are likely to develop dental problems, a dental specialist will monitor your progress during radiotherapy. After radiotherapy, you will need to have regular dental check-ups (every 4–6 months).

It is important to tell your own dentist that you have had radiotherapy before having any dental work after radiation treatment.

Mouth stiffness: Sometimes radiation to the 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. A speech and language therapist may also provide other ways to help.

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 be helpful 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. In other cases hair loss may occur where the beam of radiation enters and leaves your body, e.g. at the back of your neck. Your radiation therapist will be able to tell you where your hair will fall out – but ask if you are worried about it.

Most hair loss is temporary and will start to grow back within 2 to 3 months of finishing treatment. The colour and texture might be a little different – for example, it may not be as thick as before.

Hair loss can be upsetting to many people for various reasons. It can be a constant reminder of your illness or you may feel your identity had been lost, particularly if you liked your hair very much.

If you would like more advice, contact the National Cancer Helpline 1800 200 700 for a free copy of the booklet or factsheet Coping with Hair Loss.

Difficulty with eating and drinking
Surgery and radiotherapy to the neck, e.g. the larynx, may cause difficulty with both eating and drinking. You may notice after a week or two of radiotherapy that you have difficulty in swallowing. It may feel like you have a lump in your throat all the time. Food or drink may seem to go down the wrong way, making you cough as you try to swallow.

If you have any difficulty eating or drinking, it is important to 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. If the problem gets worse they can also arrange for a dietician or speech and language therapist to help. Your doctor may also give you medication to take before meals to make swallowing easier.

It is best to put small amounts of food into your mouth and chew properly before you try to swallow. You may find it helpful to eat foods combined with liquid, such as thick soups or stews. If fluids go down the wrong way, there is a powder available which, when added to your drink, makes it thicker and easier to swallow. The discomfort will usually ease 5 to 8 weeks after you finish treatment.

Weight loss
If you continue to lose weight because you have difficulty in eating, you may need to be fed in an alternative 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 are able to eat properly again. A helpful booklet called Diet and the Cancer Patient is available from the Irish Cancer Society. Call the National Cancer Helpline 1800 200 700 for a free copy and advice.

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 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 the neck, in particular the larynx, may cause the sound of your voice to change. Your voice may become quieter or sound hoarse. It may become sore for you to even talk. If this happens, it is best to rest your voice during treatment. If you have a
voice prosthesis such as a Blom-singer valve or are using an electro-larynx, you may notice that the quality of your voice is poor. This common effect of treatment is temporary. The quality of your voice should start to improve when you finish treatment. Talk to your speech and language therapist. He or she 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. About 10 to 14 days after treatment starts skin reactions such as redness, weeping and itchiness can occur in the treated area. Some women feel their breast tissue becomes more sensitive while others have less feeling there. However, for some women there is no change to their breast at all. Usually the side-effects disappear within 4 to 6 weeks from the time they occur.

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 the skin. In some cases, the breast tissue that has been treated becomes more fibrous and harder resulting in breast shrinkage. Sometimes the long-term effects may be permanent. Again 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 Action Breast Cancer 1800 30 90 40.

About 10 to 14 days after treatment starts skin reactions can occur.

### Radiotherapy to the chest region

#### Difficulty in swallowing and weight loss

With radiotherapy to the lung or oesophagus 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. You can also add high-calorie drinks like Ensure, Build-up or Complan to your diet. You may need to try a number of these drinks to see which ones are easiest to swallow. If swallowing is very uncomfortable your doctor may prescribe painkillers or liquid medicines or antacids. These can be taken before meals to make swallowing easier. 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 the lung or oesophagus. When you cough, the amount and colour of the mucus may be different. 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 the bowel for you.

You will also be advised to drink lots of fluid during this time. Depending on the severity of your diarrhoea, you may need to change your diet to a bland, low fibre diet. This means cutting down on fresh fruit and vegetables, e.g. beans and cabbage, and cereals and grains for a while. Eat bananas as they can help stop diarrhoea but avoid them if you are constipated. The diarrhoea or constipation may continue for some weeks after your treatment. Once they settle down, you can eat a normal, healthy diet again.
Bladder irritation

Sometimes radiotherapy to the pelvis can result in difficulty with passing urine. Usually it 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 can then only pass very small amounts or none at all. This may disturb your sleep at night. Occasionally, blood may appear in your urine. If you notice any of these changes, it is important to tell your doctor, radiation therapist or nurse straight away, especially if you cannot pass urine. A urine sample may be taken to check if you have any signs of infection. This may be done regularly during your treatment and antibiotics given if needed.

In the treatment of prostate cancer a narrowing of the tube from the bladder to the penis can occur. This can affect the flow of urine. Radiotherapy can cause slight leakage of urine (urinary incontinence) too, but this is rare nowadays. If you experience any signs of incontinence, your doctor can prescribe medication to help. Some urinary problems may occur months after treatment, so tell your doctor or nurse as soon as possible if any develop.

Tips & Hints – bladder problems

- Drink as much fluid as possible – this will 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 to the rectum or ‘back passage’ (proctitis). This is a common side-effect if the area being treated is in the lower pelvis, such as for prostate or bladder cancer. It can cause a feeling of wanting to strain, whether you actually need to pass a bowel motion or not. Your bowel motions may also become looser or more frequent than before your radiotherapy. Slight or severe bleeding from the back passage can sometimes occur or you may notice a slimy mucous discharge. If you already have piles, they may be irritated even more, so local anaesthetic, steroid creams or suppositories may be prescribed to ease your discomfort.

As soon as you develop any bowel problems, let your doctor know. Most likely you will be advised to eat a high-fibre diet to avoid becoming constipated, as this can worsen the irritation.

You may experience impotence or the lack of desire for sex or intimacy.

Sexual dysfunction and infertility

For both men and women the side-effects of radiotherapy to the pelvis can include sexual problems. You may experience impotence or the lack of desire for sex or intimacy. Infertility may occur in some cases.

During radiotherapy to the pelvis, women will be advised not to have sex. Depending on the radiation dose they may stop menstruating too. Other symptoms such as vaginal itching, burning and dryness can make sex uncomfortable. However, there are ways to relieve these problems.

It is important for you to 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 45 for more details on how radiotherapy can affect your sex life and page 48 for more information on infertility.

Loss of appetite and weight loss

Radiotherapy to the 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.

Eating little and often rather than having large meals 3 times a day may make it easier for you. If eating becomes a problem for you, your dietician or doctor will be able to advise you. See page 38 for more details on eating and drinking.
How will treatment affect my lifestyle?

Limited radiotherapy services in Ireland may mean that you have to travel some distance to the hospital or radiotherapy centre. You might find all the travelling tiring or even exhausting. This may be even harder if you are experiencing some side-effects of treatment as well.

Travelling to the radiotherapy centre

Don’t be afraid to ask for help if you find travelling too difficult. Ask a family member or friend to drive you there and back. If this is not possible, enquire about hospital transport. Some hospitals provide transport and this can be arranged by the radiotherapy staff. Another option is to contact the community welfare officer at your local Health Service Executive (HSE) office. Sometimes the HSE provide transport to hospitals for outpatient appointments and day centres. They may also assist with your transport costs if you have a long distance to travel. 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.

>>> Find out if your hospital or HSE office provides transport for your radiotherapy.

Guest accommodation

Depending on where you live and your circumstances, it may be possible to stay at the hospital in guest accommodation. Obviously, if you are receiving internal radiotherapy, you will be admitted as an inpatient for a short time. 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. Remember to bring things to occupy your time too, like newspapers, books, magazines or puzzles, a radio or a CD walkman.

Fatigue and work

The effect of radiotherapy on people tends to vary quite a bit. Often it depends on the age of the person and the extent of the treatment received. 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 following a nap. Others might find it very tiring and prefer to stay at home and take sick leave from work or school or college. Don’t be afraid to ask for help if you feel overwhelmed, especially if you have young children or older parents to care for.

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 the pelvic area and your doctor advises it. For 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.

>>> Some people have no interest in sex or intimacy while dealing with the side-effects of treatment.

Some people have no interest in sex or intimacy while dealing with the side-effects of treatment, such as fatigue, nausea or anxiety. They only return to it once the side-effects have disappeared. It may also take some time to resume sex if you have had surgery which has changed your body image. You may feel self-conscious or vulnerable being with your partner. Indeed you may be afraid that your partner – or a future one – will be put off by the changes to your body. As a result, you may not wish anyone to see or touch your body. Naturally, it can take some time to get used to your new image. This is quite
normal. Once you return to your usual routine after radiotherapy, your interest in sex is likely to return too.

Both external and internal radiotherapy to the pelvis does affect the reproductive organs in men and women. So this may cause a few sexual problems.

**Advice for women**

Radiotherapy to the pelvic area affects the ovaries and can cause early menopause. Naturally, this can be very distressing, especially if you are a younger woman and not prepared for it.

The menopause usually occurs gradually so you may have finished your treatment when the first symptoms appear. These may include hot flushes, dryness of the skin and the vagina, and less interest in sex. If dryness of the vagina is making sex painful, your doctor may prescribe a cream or ointment to ease the problem. To moisten the vagina you can use KY gel or other lubricants such as Replens, which are available from your pharmacy without a prescription. In some cases, your doctor can prescribe hormone replacement therapy (HRT) to prevent these symptoms.

Occasionally, radiotherapy to the vaginal area makes the vagina narrower. Vaginal dilators and lubricants are very useful for keeping the vagina supple once you have finished treatment. Your nurse will show you how to use the dilators. Regular sex may also help to prevent narrowing of the vagina, but many women do not feel ready to resume a regular sex life until the side-effects of radiotherapy are gone. Using a dilator can be an effective way of keeping your vagina healthy.

**Advice for men**

If you undergo radiotherapy to the bladder or prostate gland combined with surgery or hormone therapy, you are likely to experience loss of interest in sex and also impotence. This is because radiotherapy can damage the nerves that control getting an erection.

A high percentage of men develop impotence after external radiotherapy treatment for prostate cancer. If you have had surgery or hormone therapy either before or after your radiotherapy, it may also increase your risk further. Impotence may develop months or years after your radiotherapy has finished. It is important that you discuss these issues with your doctor before and when they occur. If you are between check-ups, contact your doctor for advice. Don’t suffer in silence – there are many ways to help you. Your doctor may recommend that you try Viagra or Cialis. These medications help some men especially when they are started early after radiotherapy.

Anxiety may also play a part in your loss of interest in sex and impotence. The anxiety may be related to your cancer, or worries about your future, or because the treatment is making you too tired for sex. These effects may last for a few weeks after radiotherapy has finished and can be very distressing. But they will pass and you should be able to resume a normal sex life.

Once you return to your usual routine after radiotherapy, your interest in sex is likely to return too.

Both external and internal radiotherapy to the pelvis does affect the reproductive organs in men and women. So this may cause a few sexual problems.

### Talking about your worries

If you are worried that radiotherapy could affect your sex life, discuss your worries with your radiation oncologist before your treatment begins. He or she will be able to tell you about the side-effects your treatment is likely to cause. 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 an important part of your life, 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. Your partner may even have anxieties too and be waiting for a sign that you are ready to discuss them. 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 or nurse about what is troubling you. Knowing how sensitive this issue can be, he or she will only be glad to help you. Your doctor may refer you for specialist counselling, if you think that would be helpful.

A booklet called *Sexuality and Cancer* is available from the Irish Cancer Society. Call the National Cancer Helpline 1800 200 700 for a free copy or for advice in confidence.
Will treatment affect my fertility?

In general for men and women radiotherapy has no effect on fertility or the ability to have children. However, where the ovaries cannot be excluded from the radiation field, short-term or long-term infertility is likely. If you are a woman in your child-bearing years it is important to discuss contraception and fertility issues with your doctor. Even if your treatment is likely to make you infertile, you will still be strongly advised to use contraceptives. You should try not to become pregnant during radiotherapy as the treatment may be harmful to your baby.

Female fertility

Radiotherapy to the pelvic region may cause infertility and you may experience the signs of an early menopause. This may come on gradually over a number of months. You may get hot flushes, dryness of the skin and vagina, or other symptoms of the menopause. Depending on your type of cancer, your doctor may prescribe hormone replacement therapy (HRT) for you.

If your periods stop during radiotherapy, it does not necessarily mean that you are permanently infertile.

Remember that if your periods stop during radiotherapy, it does not necessarily mean that you are permanently infertile. Some side-effects of radiotherapy and chemotherapy, such as vomiting and diarrhoea, can make the contraceptive pill less effective. If you are sexually active and of child-bearing years, you must still use a reliable method of contraception throughout your treatment and until all the effects of treatment have disappeared.

When you have finished treatment, there are blood tests that can be done to show if you are fertile or not. These tests are quite straightforward. Talk to your doctor or nurse who can arrange them for you.

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. The HARI (Human Assisted Reproduction Ireland) Unit at the Rotunda Hospital, Dublin provides a service where eggs can be frozen. Talk to your doctor about this service or call the National Cancer Helpline 1800 200 700 for more information or for a free booklet called Fertility and Cancer.

Male fertility

For some men, cancer itself rather than treatment can cause infertility. Sperm tests carried out before treatment begins will show if this is the case. Some types of cancer treatment may also cause infertility, such as radiotherapy to the testis and chemotherapy.

If you are sexually active and your partner is still young enough to have children, you must use a reliable method of contraception throughout your treatment and for some time afterwards. It is important to discuss contraception and fertility issues with your partner and your doctor. Even if your treatment is likely to make you infertile, you will still be strongly advised to use contraceptives. You should try not to become pregnant during radiotherapy as the treatment may be harmful to your baby.

If tests show that your sperm count is satisfactory, it may be possible to store your sperm before treatment begins. The sperm can then be used...
at a later date. The HARI (Human Assisted Reproduction Ireland) Unit at the Rotunda Hospital, Dublin provides a service where sperm can be frozen. Call the National Cancer Helpline 1800 200 700 if you would like more information, for confidential advice or for the free booklet called Fertility and Cancer.

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.

When a new treatment is being developed, it goes through stages of research called phases. If the treatment looks as if might be useful in treating cancer, it is then given to patients in research studies called clinical trials. These aim to find a safe dose, see what side-effects may occur and identify which cancers can be treated.

If early studies suggest that a treatment may be both safe and effective, further trials are carried out. These aim to:
- Find out if the treatment is better than existing ones.
- Find out if extra benefits result when the new treatment is given along with existing ones.
- Compare the new treatment with current best standard treatments.

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. You can only give this consent if the trial has been fully explained to you, so that you understand what it is about. This is called informed consent. You will also need time to think about it and discuss it with your family or friends. If you decide not to take part, you will still be given the best treatment available. Even after agreeing to take part in a trial, you can still withdraw at any time if you change your mind.

As part of research into the causes of cancer, your doctors may ask your permission to store some samples of your cancer cells or blood. If you would like more information, a booklet called Understanding Cancer Research Trials (Clinical Trials) is available. Call the National Cancer Helpline 1800 200 700 for a copy.

Cancer and complementary therapies

There is great interest today in complementary treatments for cancer. Lots of people find them helpful and beneficial during their illness. In many countries the way cancer is treated depends on the culture and environment in which you live. In Ireland cancer treatments are based on scientific research, which allows the response to treatment, side-effects and the general effect of treatment to be predicted.

You may hear about the following types of treatments or therapies.

Conventional therapies
Conventional therapies are treatments which doctors use most often to treat people with cancer. These standard treatments include surgery, radiotherapy, chemotherapy and biological treatments. They are tried and trusted methods where the experience with patients is over a long period of time. Many of these treatments have been tested in clinical trials.

Complementary therapies
Complementary therapies are treatments that are sometimes given together with conventional treatment. They include therapies such as:
- Meditation
- Relaxation
- Visualisation
- Gentle massage
- Aromatherapy
- Reflexology
- Music, art and dance therapy
- Nutrition therapy
- Shiatsu
- Yoga
- Acupuncture
- Hypnotherapy.

Many people find that complementary therapies are very helpful in a number of ways. You may feel more positive about yourself and your illness. You may be better able to cope with the physical side-effects of cancer and the distressing emotions that cancer can often bring. Some complementary therapies also focus on the spiritual dimension of a person to aid healing and promote a sense of well-being.
Nowadays complementary therapies are often provided in hospitals, cancer treatment centres and support centres and can be given safely.

**Alternative therapies**

Alternative therapies are not conventional cancer treatments used by doctors. Generally they are treatments used instead of conventional treatments. Alternative therapies include:

- Diet therapy
- Megavitamin therapy
- Herbalism.

These therapies are not based on scientific evidence so it is very hard to prove if they are generally effective or not. Many doctors, including the medical committee of the Irish Cancer Society, do not believe that such treatments can cure or control cancer and should not be taken instead of conventional treatments.

At present in Ireland this area is not fully regulated. For this reason, you should find out if the practitioners you plan to visit are properly qualified and have a good reputation. Check to see if they belong to a professional body and are registered or not. It is best to discuss your plans with your doctor too.

### If you decide to have complementary or alternative treatments...

Before you decide to change your treatment or add any methods of your own, be sure to talk to your doctor or nurse. Some methods can be safely used along with standard medical treatment. But others can interfere with standard treatment or cause serious side-effects. For that reason, it is important to talk openly with your GP or cancer specialist if you are thinking of having treatment with either a complementary or alternative practitioner. Don’t be afraid that your doctor will be offended by your wish for other treatments. In fact, he or she may be able to recommend therapies that could be safe and useful for you.

Be cautious in selecting a practitioner. Don’t be misled by promises of cures. Ensure that the practitioners you plan to visit are properly qualified and have a good reputation. Check to see if they belong to a professional body or not. If you are unsure but would like to know what other patients have found helpful, contact your doctor or a patient support group. Also, it is important to make sure that the practitioner is charging a fair price for your treatment.

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 more advice, call the National Cancer Helpline 1800 200 700.

### Life after radiotherapy

When treatment finishes many people look forward to life returning to normal. But you may also have mixed feelings. You may be delighted even exhilarated, but you may 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.

You might not feel ready to lead as active a life as you did before treatment. It is better not to fight these feelings, but to allow your body the time it needs to recover. You may have problems to solve or decisions to make which you deferred because of treatment. These issues may include changing jobs, getting back to work or study and if you can have children or not.
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
- Explore complementary therapies
- Give yourself rewards or treats.

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. He or she 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 effective treatment can be given. If you are between check-ups or have a symptom or problem that worries you, let your doctor know, especially if you have one of the following:

- A pain that doesn’t 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 doesn’t 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 to cope with your 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.

Even if radiotherapy can have unpleasant side-effects, many people do manage to live a normal life during treatment. 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 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. You may find this booklet helpful and can get a free copy by calling 1800 200 700.

Feelings and emotions

Sometimes you may feel anxious, afraid or even depressed by your illness. The disease itself and the effect of radiotherapy on your life may make you feel low. Often this may happen because of the change to your usual routine, at the side-effects of treatment, or perhaps the risk of infertility. 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 and neglected. It is important to remember that recovery time varies between people. You may feel you need the most support at this time.

Cancer Helpline 1800 200 700
Seek information
There are ways to help you deal with feeling fearful or discouraged. One of the first things to do is to find out exactly what is causing your feelings. For example, you may feel anxious, asking questions like: ‘Has the radiotherapy worked?’ or ‘Has it had any damaging effect on my body?’ These may leave you feeling afraid of the future and what it may bring.

Information can help you overcome your fears.

Once you have identified why you are feeling low, you can start to take action. Information can sometimes help to overcome fear. If you don’t understand something about your illness, the side-effects or results of your treatment, ask your doctor, nurse or radiation therapist. If you don’t understand the explanation they give, keep asking until you do. Most doctors and nurses are very willing to keep you informed and up-to-date.

Spiritual support
When faced with a cancer diagnosis and treatment, you may start thinking about the meaning of life and the purpose of it all. Your illness may affect your spiritual well-being. Indeed you may be afraid that you are going to die, even if your radiotherapy treatment is going well and your doctor, radiation therapist or nurse has reassured you. Talking to a leader or a member of your religious faith can be helpful in this situation. Don’t be afraid to ask your nurse, a family member or a friend if it can be arranged. Some complementary therapies may also help you to focus on being positive and hopeful. Remember your emotional well-being is as important as your physical health.

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 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. Often a short course of antidepressants can be helpful. These can lift your spirits and have few side-effects in the short term. Emotional difficulties linked with cancer are not always easy to talk about. Often they can be hard to share with loved ones. Talking to a counsellor or psychotherapist who is not personally involved in your situation can be a great help. They can help to make sense of your thoughts, feelings and ideas.

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.
It is important to talk openly with your partner or family about your worries. They may be feeling the same way, but may not want to upset you by bringing up awkward subjects.

How can I talk to my children?

A cancer diagnosis can affect an entire family. It can bring changes that may be either large or small. Even so, it is best to keep family life going as much as possible. Continue with school and other activities, with birthdays and celebrations or work commitments. It may take a while but families can learn to adjust to changes in their lives.

Every family deals with cancer in a different way. You may feel that you do not want your illness to upset family life, or feel guilty that you cannot do activities with your children or that you’re letting the children down. These are all natural feelings to have at this time.

Be honest

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.

How much you tell children will depend on their age and level of maturity. Very young children do not understand illness and need a simple reason why their parent or friend is sick and has to go to hospital regularly. A story about good cells and bad cells usually works well. Most children over 10 years of age can take in fairly full explanations of why you are sick. Adolescents can understand far more. Talk to children in language they will understand and without going into the details of your illness.

It is best to prepare children for what to expect from the side-effects of treatments and to answer their questions simply and honestly. It is also important not to force your children to talk about your illness. If they rebel or turn quiet, it may be their way of showing their feelings.

Coping with children’s emotions

During your illness, your children may experience a range of emotions from fear, guilt, anger to neglect, loneliness, isolation and embarrassment. They need to be reassured that your illness is not their fault. Whether they show it or not, children may feel that they somehow are to blame. But by having an open honest approach, it may bring you a sense of relief. Your family may also find new depths of love and inner strength that will boost your life together.

If you need some extra help in dealing with children, talk to your nurse or medical social worker.


How can my family and friends help?

Families and friends can support people through their cancer journey in different ways. Some family members and friends can offer a listening ear and give advice if needed. Some may gather up-to-date information on cancer so as to know what their loved one can expect and what they are going through. Others may prefer to help in a practical way with travelling to and from the hospital, with childcare, cooking, shopping or housework. It may take time to know which way suits you and your friend or relative best.
How to talk to someone with cancer

When someone close to you has cancer it can be hard to know what to do. Their welfare may be a priority for you, but still you might be unsure when to visit or what to talk about. You may be afraid of upsetting them or saying the wrong thing. So it may seem best to pretend that everything is okay and carry on as normal. Sadly, by not talking to your friend or loved one, it can make them feel even more lonely and isolated. Try not to withdraw because you’re afraid of their illness or what might happen in the future. Although some people do die from cancer, many do not. Be honest with your feelings too.

Don’t withdraw because you’re afraid of what might happen to your relative or friend in the future.

Often those with cancer do not wish to burden their family and friends with their worries and concerns. Gentle encouragement can sometimes help. But don’t rush into talking about their illness – knowing that you are always ready to listen and give help may reassure them. You may not think you are doing much by just listening. In fact, it is one of the best ways to help.

Sometimes your friend or relative may get cross or irritable for what may seem to be no good reason. These feelings are completely normal. Be as patient and understanding as you can. Give them the space and time to adjust to the changes in their life. Above all, let them know that you are there, if they want to talk or need help. In time, life will begin to be normal again.

Your friend or relative may sometimes get cross or irritable. These feelings are completely normal.

Lost for Words – How to Talk to Someone with Cancer is a useful booklet written for relatives and friends of people with cancer and is available from the Irish Cancer Society. Call the National Cancer Helpline 1800 200 700 for a free copy.

Support resources

Who else can help?

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

- Medical social worker
- Oncology liaison nurses
- Cancer nurse co-ordinators
- Psycho-oncology services
- Community welfare officer and community health services
- Support groups
- Helpline nurses.

The medical social worker in your hospital can help in many ways. He or she provides support and counselling to patients and their families and can provide advice on benefits, entitlements and services available when you go home.

Some of the major cancer treatment hospitals have oncology liaison nurses and/or cancer nurse co-ordinators. These specially trained nurses provide support to patients and their families from the time of diagnosis and throughout treatment. These people along with other members of your medical team work together to meet your needs.

In some larger hospitals there are special units that provide psycho-oncology services. This means that psychological care and support is given to patients with cancer during diagnosis, treatment and recovery by a team of experts. Usually the team consists of psychiatrists, clinical psychologists and specialist nurses working closely together.

When you go home there are various community health services available from your local health centre. These centres have family doctors, public health nurses (who can visit you at home), welfare officers and home-help organisers. If you live in an area which is remote or far from the hospital where you have been treated, your
community welfare officer can also help with practical issues such as financial worries, transport etc. All the above people in the community health services can provide advice and support. You can get more information on the services available either from the social worker in the hospital before you go home or at your local health centre.

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. You may find it easier to share your thoughts and feelings with someone who has had a similar experience than with anyone else. There are a range of support groups that will support you and your family at time of diagnosis, throughout treatment and afterwards. A list of support groups is given at the back of this booklet.

Often you might need practical advice about your financial matters, e.g. getting a mortgage or travel insurance. The Irish Cancer Society Helpline nurses will be happy to discuss any concerns you or your family may have, at any stage of your illness. They can give you more information about any of the services outlined above and can also let you know about support services in your area. For more information, call the National Cancer Helpline 1800 200 700, Action Breast Cancer 1800 30 90 40 or the Prostate Cancer Information Service 1800 380 380.

**Health cover**

Health cover falls into two categories – cover for medical card holders and cover for all other categories. Details of what these entail are given in the following pages. At the end of this section there are 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 all public hospitals. There is a €60 a night charge up to a maximum of €600 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 outpatients or A&E unit of a public hospital, without being referred there by a GP, you may be charged €60. There is no charge if you are referred by a GP. This charge does not apply if you have a medical card or are admitted to hospital as a result of attending the A&E unit first.

**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, and outpatient services and medical appliances. Every person aged 70 or over has a right to a medical card and no means test is needed. It covers the applicant only and not their dependants.

For most people, eligibility for a medical card depends on a means test. Financial guidelines are set out each year and these are available from your local Health Service Executive (HSE) office, i.e. the former health board. If your means are above but close to the guidelines, you should apply for a card anyway as a card is granted in some situations. For example, if you have a large amount of medical expenses, you may be granted a medical card. Also you may be eligible for a medical card as an individual because you have a cancer diagnosis. In this case your spouse and children will not be covered if your means are over the limit.

**GP visit card**

If you do not qualify for a full medical card, you may be eligible for a new type of medical card. The ‘GP visit card’ was introduced in 2005. It 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 hospital social worker or your HSE office to see if you are eligible.

Cancer Helpline 1800 200 700
Drugs Payment Scheme
Under the Drugs Payment Scheme (DPS), individuals and families including spouses and dependant children pay a limit of €85 each month to cover the cost of prescribed drugs, medicines and appliances. If you have not already received a DPS card for yourself and your family, you can apply for cover under the scheme by contacting your local HSE office. You can also register for this scheme by filling in a registration form at your pharmacy. If you opt for a fertility procedure like egg freezing, the cost of the drugs used in the procedure can be reclaimed through the DPS.

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, VIVAS, Quinn Healthcare (formerly BUPA) and other schemes. They provide cover for day care/inpatient treatment and hospital outpatient treatment. It is advisable to check the level of cover provided by your insurance company, both for inpatient and outpatient services, before attending hospital.

Benefits and allowances
Disability Benefit
This is a benefit for insured people. Eligibility will depend on your PRSI contributions. You must be under 66 and unfit to work due to illness. Each week you must send a social welfare medical certificate signed by your doctor to the Dept of Social and Family Affairs, PO Box 1650, Dublin 1. Tel (01) 679 7777. These certificates are available from your GP and from the hospital you attend during inpatient care. You should send your claim to the Department within 7 days of becoming ill and unable to attend work. A delay might result in loss of payment.

Disability Allowance
You may qualify for Disability Allowance if you are not eligible for Disability Benefit and not able to work for at least a year. Disability Allowance is a weekly allowance paid to people with a disability who are aged between 16 and 66. You must have a means test and be medically suitable for this allowance. To be medically suitable you should have an illness that has continued or may continue for at least one year. This means that you are unlikely to be able to work for at least a year due to your illness. Application forms are available from post offices, social welfare offices or the Disability Allowance Section, Social Welfare Services Office, Ballinalee Road, Longford. Tel: (043) 45211 or (01) 874 8444.

Invalidity Pension
This is a pension paid instead of a Disability Benefit or Allowance, if you are unable to work in the long term. There are three cases where you can be eligible. (1) If you have been incapable of work for at least 12 months and likely to be incapable for at least another 12 months. (2) If you are permanently incapable of work. (3) If you are over age 60 and have a serious illness or incapacity.

Your eligibility for this pension will also depend on your PRSI contributions. You are allowed a free travel pass and certain extra benefits, such as bottled gas, telephone rental, fuel allowance and assistance under the Supplementary Welfare Allowance Scheme. Application forms are available from the Invalidity Pension Claims Section, Social Welfare Services Office, Ballinalee Road, Longford. Tel: (043) 45211 or (01) 874 8444.

Carer’s Allowance
This is an allowance for carers on low incomes who look after someone who needs full-time care and attention. There are a number of benefits with this scheme such as a free travel pass for the carer, free television licence, and home energy allowance. A telephone allowance has been extended to carers giving full-time care. There is also a contribution towards respite care. This is a means-tested allowance.

For more advice, talk to your social worker and/or the Dept of Social and Family Affairs. Application forms are available from your social welfare office or from the Carer’s Allowance Section, Social Welfare Services Office, Government Buildings, Ballinalee Road, Longford. Tel: (043) 45211, Ext. 8940 or Dublin (01) 704 3000, Ext. 8940.
Carer’s Benefit
If you are employed but wish to care for a sick relative, you may qualify for a Carer’s Benefit. This is a payment made to insured persons who leave the workforce to care for someone in need of full-time care and attention. Under carer’s leave legislation, you may be entitled to unpaid temporary leave from your employment. You should apply for Carer’s Benefit 8 weeks before you intend to leave employment so that your eligibility can be assessed prior to leaving your employment.

More information is available from the Carer’s Benefit Section, Social Welfare Services Office, Government Buildings, Ballinallee Road, Longford. Tel: (043) 45211, Ext. 8787 or Dublin (01) 704 3000, Ext. 8787.

Appliances
For patients who have medical cards most appliances are free of charge. For example, you are entitled to a new hairpiece or wig every 6 months.

Travel to hospital
Patients can be faced with many expenses including travelling to and from hospital. If your travel costs are very expensive, discuss it with your social worker at the hospital. Limited help may also be available from your community welfare officer. Some HSE offices provide transport services to hospitals for outpatient appointments and day centres. Sometimes the HSE may assist with transport costs for a person who has to travel a long distance to a hospital.

In general, people who do not have medical cards may be charged for the service. However, the practice varies between HSE areas and is often dependent on personal circumstances. Charges may be waived in certain cases, e.g. hardship.

Further information
Depending on your circumstances at the time of your illness, there are many other benefits and entitlements which 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, or
- The medical social worker in the hospital you are attending.

For social welfare queries contact:

Information Service
Dept of Social and Family Affairs
Áras Mhic Dhiarmada
Store Street
Dublin 1

Tel: 01 874 8444
Leaflet line: 1890 202 325
Email: info@welfare.ie
Website: www.welfare.ie

If you have queries about health and social services, contact the HSE office in your area. In 2005 the health boards became the Health Service Executive, based in four regions: HSE Dublin North East, HSE Dublin Mid-Leinster, HSE South and HSE West. For more information contact: HSE Infoline: 1850 241 850; Email: info@hse.ie

Website: www.hse.ie

HSE East Coast Area
[Co Wicklow, South East Dublin]
Southern Cross House
Southern Cross Business Park
Boghall Road
Bray
Co Wicklow
Tel: 01 2014 200

HSE Northern Area
[North Dublin]
Swords Business Campus
Balheary Road
Swords
Co Dublin
Tel: 01 8131 800

HSE South Western Area
[Co Kildare, West Wicklow, South Dublin]
Oak House
Millennium Park
Naas
Co Kildare
Tel: 045 880 400

HSE Midland Area
[Counties Laois, Offaly, Longford, Westmeath]
Head Office
Arden Road
Tullamore
Co Offaly
Tel: 057 9321 868

HSE Mid-Western Area
[Counties Clare, Limerick, Tipperary North]
Head Office
31/33 Catherine Street
Limerick
Tel: 061 483 286

HSE North Eastern Area
[Counties Cavan, Monaghan, Louth and Meath]
Head Office
Navan Road
Kells
Co Meath
Tel: 046 9280 500
Understanding radiotherapy

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. If you would like more information on any of these services, call the National Cancer Helpline 1800 200 700.

Homecare nurses

Homecare nurses are specialist palliative care nurses who offer advice on pain control and other symptoms. These nurses work with GPs and public health nurses to form homecare teams bringing care and support, free of charge, to patients in their own homes. Based in local hospitals, health centres and hospices, they can be contacted through your GP or public health nurse.

Night nursing

The Irish Cancer Society can provide a night nurse, free of charge, for up to 7 nights to families who are caring for a seriously ill person at home. If you need help, you can find out more about this service from a member of the homecare team, your GP or local public health nurse.

Oncology liaison nurses

The Irish Cancer Society funds oncology liaison nurses who provide information as well as emotional and practical support to the patient and his or her family. Oncology liaison nurses work as part of the hospital team in specialist cancer centres.

Cancer Information Service (CIS)

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

The helpline operates Monday to Thursday from 9am to 7pm, and every Friday from 9am to 5pm. All queries or concerns about cancer can be emailed to the CIS at helpline@irishcancer.ie. The walk-in caller service allows anyone with concerns about cancer to freely visit the Society to discuss them in private. CancerForum is a bulletin board on our website (www.irishcancer.ie) that gives the public the chance to post their comments. The CancerChat service is a live chatroom with a link to a CIS nurse.

**Action Prostate Cancer**

Action Prostate Cancer is a new initiative of the ICS that provides prostate cancer information and support. Under the banner of Action Prostate Cancer we have established the **Prostate Cancer Information Service** (PCIS), which offers confidential information, support and guidance to people concerned about any aspect of prostate cancer. The PCIS is staffed by specialist nurses and can be contacted on freephone 1800 380 380 from Monday to Thursday, 9am to 7pm, and on Friday from 9am to 5pm. Or you can email prostate@irishcancer.ie.

**Action Breast Cancer**

Action Breast Cancer (ABC) is a project of the ICS that provides breast cancer information and support and also funds breast cancer research. Its services are free and confidential. They include a national helpline, publications, one-to-one support, breast awareness talks, and advocacy. The ABC helpline 1800 90 30 40 operates weekdays from 9am to 5pm.

**Counselling**

Coping with a cancer diagnosis can be very stressful at times. Patients and their families sometimes find it difficult to come to terms with the illness. Many people feel that they cannot talk to a close friend or relative. Counselling can provide emotional support in a safe and confidential environment. Call the Cancer Helpline to find out about counselling services provided by the Irish Cancer Society and services available in your area.

---

**Cancer information booklets**

These booklets provide information on all aspects of cancer and its treatment. They also offer practical advice on learning how to cope with your illness. The booklets are available free of charge from the Irish Cancer Society.

**Cancer support groups**

The Irish Cancer Society funds a range of support groups set up to support you and your family at time of diagnosis, throughout treatment and afterwards.

**Patient grants**

A diagnosis of cancer can bring with it the added burden of financial worries. In certain circumstances, the Irish Cancer Society can provide limited financial assistance to patients in need. If you would like to request this kind of help, contact your oncology or medical social worker at the hospital where you have been treated. He/she should then make the request in writing to the Irish Cancer Society.

If you would like more information on any of the above services, call the National Cancer Helpline 1800 200 700.
Useful organisations

Irish Cancer Society
43/45 Northumberland Road
Dublin 4
Tel: 01 231 0500
Fax: 01 231 0555
National Cancer Helpline
1800 200 700
Prostate Cancer Information Service
1800 380 380
Email: helpline@irishcancer.ie
Website: www.cancer.ie

Action Breast Cancer
43/45 Northumberland Road
Dublin 4
Tel: 01 231 0500
Fax: 01 231 0555
ABC Helpline 1800 30 90 40
Email: abc@irishcancer.ie
Website: www.cancer.ie

Comhairle (formerly National Social Services Board)
7th Floor
Hume House
Ballisbridge
Dublin 4
Tel: 01 605 9000
Email: comhairle@comhairle.ie

Dept of Social and Family Affairs – Information Service
Aras Mhic Dhiaormada
Store Street
Dublin 1
Tel: 01 874 8444
Email: info@welfare.ie
Website: www.welfare.ie

HARI Unit (Human Assisted Reproduction Ireland)
Rotunda Hospital
Parnell Square
Dublin 1
Tel: 01 807 2732

Health Promotion Unit
Dept of Health and Children
Hawkins House
Hawkins Street
Dublin 2
Tel: 01 635 4000
Website: www.healthpromotion.ie

Irish Patients Association
Unit 1, 21 Church Road
Ballybrack
Co Dublin
Tel: 01 272 2552
Out of hours emergency no:
087 6529448
Email: info@irishpatients.ie
Website: www.irishpatients.ie

Health insurers
Quinn Healthcare (formerly BUPA)
Mill Island
Fermoy
Co Cork
Local: 1890 700 890
Fax: 025 42122
Email: info@quinn-healthcare.com
Website: www.quinn-healthcare.com

VIVAS Health
Paramount Court
Corrig Road
Sandyford
Dublin 18
Tel: 1850 717 717
Email: support@vivashealth.ie
Website: www.vivashealth.ie

Voluntary Health Insurance (VHI)
VHI House
Lower Abbey Street
Dublin 1
Tel: 01 872 4499
Email: info@vhi.ie
Website: www.vhi.ie

Support groups & support centres
ARC Cancer Support Centre
ARC House
65 Eccles Street
Dublin 7
Tel: 01 830 7333
Email: info@arccancersupport.ie
Website: www.arccancersupport.ie

BMT Support
Bone Marrow Transplant Support Group
c/o Irish Cancer Society
43/45 Northumberland Road
Dublin 4
National Cancer Helpline 1800 200 700
Email: info@bmtsupport@irishcancer.ie
Website: www.bmtsupport.ie

Bray Cancer Support & Information Centre
368 Main Street
Bray
Co Wicklow
Tel: 286 6966
Email: bcc@iol.ie
Website: www.braycancersupport.ie

Cancer Information & Support Centre
Mid-Western Regional Hospital
Dooradoyle
Co Limerick
Tel: 061 482615
Website: www.mwhb.ie/cancercentre

Cancer Plus (support group for parents of children with cancer)
c/o Irish Cancer Society
43/45 Northumberland Road
Dublin 4
National Cancer Helpline 1800 200 700
Fax: 01 231 0555
Email: support@irishcancer.ie

CanTeen Ireland (Young People's Cancer Support Group)
c/o Carmichael Centre
Brunswick Street
Dublin 7
Tel: 01 872 2012
Email: canteen@oceanfree.net

Chronic Myeloid Leukaemia Support Group
c/o Irish Cancer Society
43/45 Northumberland Road
Dublin 4
National Cancer Helpline 1800 200 700
Fax: 01 2310555
Email: support@irishcancer.ie
Website: www.cancer.ie

Colostomy & Ileostomy Care Group
c/o Irish Cancer Society
43/45 Northumberland Road
Dublin 4
National Cancer Helpline 1800 200 700
Fax: 01 2310555
Email: support@irishcancer.ie
Website: www.cancer.ie

Cork ARC Cancer Support House
Cliffdale
5 O’Donovan Rossa Road
Cork
Tel: 021 434 6688

Donegal Cancer Support Group
Clarno
Co Donegal
Tel: 074 974 0837

The Gary Kelly Support Centre
Georges Street
Drogheda
Co Louth
Tel: 041 980 5100
Fax: 041 980 5101
Email: info@garykellycentre.org
Website: www.garykellycentre.org
Understanding radiotherapy

Genetic Breast Cancer Support Groups
c/o Irish Cancer Society
43/45 Northumberland Road
Dublin 4
Fax: 01 231 0555
Email: support@irishcancer.ie
Website: www.cancer.ie

Macmillan Support & Information Centre
Belfast City Hospital Trust
79-83 Lisburn Road
Belfast BT9 7AB
Tel: 028 9096 9202
Email: cancer.info@bch.n-i.nhs.uk

Men Against Cancer (MAC)
43/45 Northumberland Road
Dublin 4
Freefone 1800 200 700
Email: support@irishcancer.ie
Website: www.cancer.ie

Mayo Cancer Support Association
Rock Rose House
32 St Patrick’s Avenue
Castlebar
Co Mayo
Tel: 094 903 8407

Reach to Recovery
c/o Irish Cancer Society
43/45 Northumberland Road
Dublin 4
Action Breast Cancer Helpline
Freephone 1800 309 040
Email: support@irishcancer.ie
Website: www.cancer.ie

Sláunú Cancer Help Centre
Birchall
Oughterard
Co Galway
Tel: 091 550050
Email: info@slanu.ie
Website: www.slau.ie

Sligo Cancer Support Centre
2A Wine Street
Sligo
Tel: 071 9670 399
Email: scsg@tinet.ie

South East Cancer Foundation
7 Sealy Close
Earlscourt
Waterford
Tel: 051 590881

The Tuam Cancer Care Centre
30 Temple Jarlath Court
High Street
Tuam
Co Galway
Tel: 093 28522
Email: info@tuamcancercare.ie
Website: www.tuamcancercare.ie

Turning Point – Positive Health Centre
23 Crofton Road
Dun Laoghaire
Co Dublin
Tel: 01 280 7888
Email: turningpoint@eircom.net
Website: www.turningpoint.ie

Useful Irish websites
Mater Private Hospital
Information provided on external and internal radiotherapy, in particular brachytherapy for prostate cancer.
www.radiotherapy.ie
www.brachytherapy.ie

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
1599 Clifton Road NE
Atlanta, GA 30329-4251
Website: www.cancer.org

CancerBACKUP
3 Bath Place
Rivington Street
London EC2A 3JR
Tel: +44 20 7696 9003
Helpline: +44 207 7392280
Website: www.cancerbackup.org.uk

Macmillan Cancer Line
Macmillan Cancer Relief
89 Albert Embankment
London SE1 7UQ
Tel: +44 20 7840 7840
Email: cancerline@maccmillan.org.uk
Website: www.maccmillan.org.uk

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

Radiology Info
Patient information provided by the American College of Radiology and Radiological Society of North America.
Website: www.radiologyinfo.org

Royal Marsden Hospital Foundation NHS Trust
Fulham Road
London SW3 6JJ
Tel: +44 20 7808 2811
Fax: +44 20 7808 2336
Website: www.royalmarsden.org

Memorial Sloan-Kettering Cancer Center (US)
Website: www.mskcc.org

The Ulster Cancer Foundation
40–42 Eglantine Avenue
Belfast BT9 6DX
Tel: 048 906 63281
Website: www.ulstercancer.co.uk

University of Pennsylvania Cancer Center
Website: www.oncolink.com

Wessex Cancer Trust (UK)
Website: www.wessexcancer.org
**Helpful books**

*Cancer at Your Fingertips* (2nd edn)  
Val Speechley & Maxine Rosenfeld  
Class Publishing, 2001  
ISBN 1-85959-036-5

*Challenging Cancer: Fighting Back, Taking Control, Finding Options* (2nd edn)  
Dr Maurice Slevin & Nira Kfir  
Class Publishing, 2002  
ISBN 1-85959-068-3

*Coping with Radiation Therapy*  
Daniel Cukier, Virginia E. McCullough & Frank Gingerelli  
Contemporary Books, 2001  
ISBN: 0-73730-415-4

*Taking Control of Cancer*  
Beverley van der Molen  
Class Publishing, 2003  
ISBN 1-85959-091-8

*The Bristol Approach to Living with Cancer*  
Helen Cooke Robinson, 2003  
ISBN 1-84119-680-0

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

*The Key Model – A New Strategy for Cancer Recovery*  
Dr Seán Collins & Rhoda Draper  
Ardagh Clinic, 2004  

*The Secret C: Straight Talking About Cancer*  
Julie A Stokes  
Winston’s Wish, 2000  

*Why Mum? A Small Child with a Big Problem*  
Catherine Thornton  
Winston’s Wish, 2005  
ISBN 1-85390-891-6

**Helpful DVD**

*Understanding Radiation Therapy: A Patient Pathway*  
Call 1800 200 800 for a copy.  
Website: www.cancer.ie

**Frequently asked questions**

Here is a list of questions people often want to ask. There is also some space for you to write down your own questions if you wish. Do ask questions – 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

6
Answer

7
Answer

8
Answer

9
Answer

10
Answer
Acknowledgements

We would like to extend a special word of thanks to the following for their invaluable contributions to this booklet:
Helen Buckley, Clinical Nurse Specialist Oncology
Caragh Miller, Clinical Specialist Radiotherapist
Mary Kissane, Radiation Therapist.

Special thanks also go to Siemens Ireland for permission to reproduce radiotherapy images used in this booklet.

We hope that this booklet has been of help to you. If you have any suggestions as to how it could be improved, we would be delighted to hear from you. Your comments would help us greatly in the preparation of future information booklets for people with cancer and their carers.

If after reading this booklet or at any time in the future, you feel you would like more information or someone to talk to, please phone our nurses on the freefone National Cancer Helpline 1800 200 700.

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. 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.

Irish Cancer Society, 43/45 Northumberland Road, Dublin 4
Tel: 01 231 0500 Email: info@irishcancer.ie
The Irish Cancer Society is the national charity for cancer care, dedicated to eliminating cancer as a major health problem and to improving the lives of those living with cancer.