

# Education Radiotherapy to the Breast

PATIENT INFORMATION SERIES

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This leaflet has been written for patients who are receiving radiotherapy to the breast or chest wall area. The booklet describes:

- **What is radiotherapy**
- **How your treatment is planned and delivered.**
- **The side effects you may experience during and after treatment, and how best to cope with them.**

We understand that this is an anxious time for patients. You may feel that you have been given lots of information about what needs to be done in a short period of time. We hope this leaflet answers some of your questions. If you still have any questions or concerns, please let your doctor, nurse or radiographer know.

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### *What is radiotherapy?*

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Radiotherapy is treatment using high energy X-rays, aimed specifically at the site of the cancer. It is a quick and painless procedure. Radiotherapy has clear benefits since it is a

localized treatment which destroys any microscopic cells and reduces the risk of recurrence. However, no treatment is completely risk free. In recommending your treatment, your doctor (Radiation Oncologist) has weighed up the risks and benefits. Please do discuss these issues with your doctor or a member of the radiotherapy team if you are worried.

Radiotherapy is planned to treat as little of the normal body tissue as possible and treatments are usually extended over a period of weeks. This allows normal cells to recover from the effects of the radiation. Common treatment prescriptions vary between three to six weeks, treating daily, excluding weekends. The exact schedule will be decided by your doctor and confirmed on your first visit to the radiotherapy department.

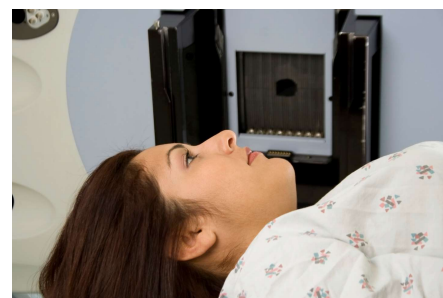
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### *Planning your treatment*

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Your first visit will be to the radiotherapy planning department and will involve having a computed tomography scan (CT Scan) to gain information of the area to be treated whilst you are lying in the treatment position. If you have had surgery, it is important that your scar has fully healed and there is no swelling (inflammation) of your

breast. It is also important that you are able to raise your arms comfortably. You may find it easier to wear a skirt or trousers rather than a dress, as you will be asked to undress to the waist. You will be asked to lie on the CT scan couch on a special breast board. The radiographers may lower or raise the breast board to ensure that you are in the correct position. Then your arms will be raised and supported on arm rests above your head. Please tell the radiographers if you are uncomfortable and they will adjust your position appropriately. The position may become more comfortable as the effects of your operation wear off. The CT scan takes images of your body, using X-rays, and processes them using a computer. The system uses several X-rays, taken at different angles, to produce detailed images of the inside of your body. These precise details mean we can target your treatment more effectively. The scan usually takes less than five minutes.



During your planning appointment, the radiographers will draw with pen on your skin, to outline the area to be treated. They will then do a series of measurements. A strip of "sticky wire" will then be placed on your scar, around the treatment area and at various landmarks of the treatment area. The radiographers will then need to leave the room. You will feel the bed move in and out of the scanner. You will pass through the scanner a number of times. The radiographers will then re-enter the room. Finally, with your permission, the radiographers make a few very small dots on your skin. These are the co-ordinates for your treatment and ensure treatment accuracy on a daily basis. The dots are permanent and are done by placing ink on your skin and then gently scratching the surface of the skin with a fine needle. As well as having radiotherapy to the breast, many patients who have had a lumpectomy will have a further "boost" treatment. This is to the area where the lump was first detected. Your doctor will advise you about this. The "boost" may be planned at the same time, or at a later stage during your treatment. Using your medical notes, the doctor will draw around the area of the breast where the lump was first detected. He/she may ask you to point to the area of your breast where you first felt the lump. The radiographers will make a template of this area and take a digital image. Do not worry if the marks fade. The radiographers will use the template and digital image to treat the correct area. Please do not attempt to redraw the marks yourself. The whole planning procedure should take approximately an hour. It is important to lie still during the planning procedure so that accurate measurements can be taken. The radiographers are there to explain the procedure and to answer any questions you may have.

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### Radiotherapy Treatment

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The radiotherapy treatment is daily, Monday to Friday. Your radiotherapy doctor will have already told you how many treatments you will be having. Your treatment will be on a machine called a Linear Accelerator. The treatment radiographers will explain the procedure to you and answer any questions you may have. For each treatment session you will be lying on the breast board in the treatment position. The radiographers will ensure you are in the correct treatment position by aligning the permanent dots on

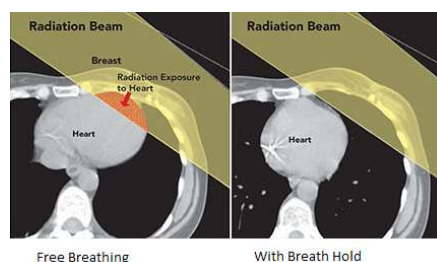
your skin with laser lights. They will then move the treatment machine and couch into position using your personal treatment plan. When final verbal checks have been made, the radiographers leave the room. To give you the best treatment you will be treated from several different angles. The linear accelerator will move around you, but will not touch you. All we ask is that you keep still. The radiographers will be watching you at all times on a closed circuit television.

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### Deep Inspiratory Breath Hold

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The method requires patients with **left**-sided breast cancer to hold their breath while treatment is administered - hence the name Deep Inspiration Breath Hold. Taking a deep breath in, increases the amount of air in the lungs and also the distance between the heart and the area of the breast receiving radiation treatment. Increasing the distance between the radiation beams and the heart reduces the subsequent potential risk of heart injury that may present three to five years after treatment



### Side effects during treatment

There will be some side effects which will gradually appear during your course of radiotherapy. There are side effects occurring during treatment, some happening soon after treatment, and some appearing months or years after radiotherapy. The risk and severity of any side effects occurring depends on the dose of radiotherapy given. Your radiotherapy doctor will discuss this fully with you. The main side effects that occur during treatment are:

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#### Skin changes

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The skin in the area being treated may become red, dry, flaky and itchy. This is a normal reaction to the radiotherapy. Some patients may experience the skin becoming sore in the fold of the breast or under the

armpit. They experience peeling of the skin that is "weeping", which can be very sore. In this situation you will be referred to the nurses for appropriate care.

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#### How to look after your skin

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During treatment we advise that you wash your skin gently using warm water and a non-perfumed soap. Pat your skin dry with a soft towel. Do not vigorously rub the treatment area. Be extra careful when drying under the breast or in any creases such as under the armpit. Do not use any deodorants, talcum powders or perfumes in the treatment area as these can irritate your skin. Do not shave or use depilatory creams under your arm on the treated side as these can irritate your skin. Some patients are worried about perspiration and not using a deodorant during radiotherapy. You can use deodorant on the unaffected side. The radiotherapy may temporarily halt the production of sweat from the sweat glands on the affected side, if the glands are treated. You may find that you perspire less on the affected side after the treatment.

Aqueous cream, which will be given to you at the start of your treatment, may be applied to the treated skin. This is a simple, unperfumed moisturizing cream to help prevent your skin from becoming too dry. The cream can be used from the start of treatment. Apply the cream two to three times per day. Smooth a little cream very gently onto the treatment area. Do not rub it in. If your skin becomes broken and sore do not use aqueous cream. You may be prescribed alternative creams by the doctor or referred to the nurses for advice.

*Do not use any other talcum powder, creams or lotions in the area being treated unless advised by a member of staff.*

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#### Clothing

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Wear loose, comfortable clothing made from natural materials. Avoid tight or underwired bras as these may rub your skin and make it more uncomfortable. During treatment you may find cotton crop tops, camisoles or vests are better than bras as they do not rub the delicate skin under the breast.

and continuing with normal life. We advise that you do as much as you feel you can and to rest when you are feeling weary.

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### *Feeling sick (nausea)*

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Nausea is a very rare side effect of radiotherapy. However, you may feel nauseous if you are having chemotherapy or if you are feeling particularly anxious or worried. If you are experiencing any symptoms please speak to a member of staff who can refer you to a doctor for further medication.

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### *Hair loss*

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Many women have a concern that radiotherapy will cause hair loss to their head. Please be assured that you will not lose any hair on your head from the radiotherapy, and it will not prevent regrowth of hair after chemotherapy. Radiotherapy is a localized treatment and only affects the area being treated. You may find that the hair under the arm on the affected side will stop growing and fall out during treatment. After treatment you may experience less hair growth in that area.

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### *Appetite*

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It is important that you try to eat a healthy balanced diet during radiotherapy to help you feel stronger and more able to cope with treatment. It is also important to drink plenty of fluids, between one and two litres a day. This can include water, squash or hot drinks.

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### *Fatigue*

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Fatigue is a very common side effect of radiotherapy treatment. Towards the end of treatment you may feel more tired than usual. The fatigue may even continue for several weeks after your radiotherapy has finished.

Do not worry, this is a normal reaction. It is usually a combination of travelling to and from hospital, the side effects of the treatment, coping with a diagnosis of cancer,

## Late side effects of radiotherapy

Late side effects can occur months or years after radiotherapy has finished. Their degree and frequency depends on the dose of radiotherapy given and the particular site that has been treated. These late effects are the hardest to predict and, unfortunately, when they do occur they are permanent. Your radiotherapy doctor will have explained the potential late side effects of radiotherapy to you as part of the consent process. The effects may include:

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### *Radiotherapy to the breast alone:*

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You may experience swelling and tenderness in the treated breast in the months following radiotherapy. You may also experience sharp pains and twinges on the treated side. This is normal and is due to your body healing following the surgery and radiotherapy. It should disappear in time, but if you are uncomfortable please see your GP.

A few women may find the treated breast is smaller or slightly different in shape after treatment. This is caused by fibrosis or thickening of the underlying breast tissue. In a small number of cases there may be thickening of the skin. The skin may feel "leathery" due to a loss of elasticity and suppleness.

Around ten per cent of women develop dilation of the minute blood vessels in the breast. This is not painful, but can make the area noticeably red or purple. This is called telangectasia. Dilation occurs because the capillaries are compensating for the destruction or narrowing of other blood vessels as a result of the radiotherapy.

Less than five per cent of women may develop weakening of the underlying ribs on the treated side. This may increase the risk of a fracture in later years. When treating the breast/chest wall it is not possible to avoid the lung and therefore as a result, a very small amount of lung is treated. It is rare for this to cause any problems for the majority of patients.

A few women may develop a dry cough which will improve in time. In a small minority of patients (less than three per cent) the symptoms may include a cough and shortness of breath upon exertion.

Some women may experience pigmentation of the skin in the treated area. This may vary from light to a darker brown.

Most women have some lymph nodes (glands) from the armpit removed during surgery for breast cancer. This is called an axillary dissection. Because of this procedure, there is a risk of swelling in the arm on the side of the operation. This is called lymphoedema. The swelling is caused by lymph fluid which arises from damage to lymphatic structures by inflammation, including infection, tumor, surgery or radiotherapy. Sometimes swelling occurs after injury or infection in the arm. Sometimes the swelling occurs for no reason. It is advisable to follow the guidelines listed below to reduce the risk of infection and swelling to your arm. The doctor will discuss the relative risks with you.

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### *Radiotherapy to the breast and axilla (armpit)*

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As well as the side effects mentioned above, women who have radiotherapy to the breast and axilla may experience the following:

Rarely, there is the risk of shoulder stiffness. This is due to scarring of the tissue around the shoulder joint, which may result in limitation of movement. Regular arm exercises will help.

A very rare side effect which may occur is called Brachial Plexus Neuropathy. This is caused by damage to the nerves around the area treated and can lead to pain, weakness, altered sensations (such as numbness and pins and needles), and restricted movement to the arm and hand on the treated side. It occurs in approximately one in every 1000 women who have radiotherapy. If you are concerned please discuss this with your doctor.

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### *Second Malignancy (another cancer)*

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Second malignancy (development of another cancer): Radiation exposure can cause cancer. Although this is true, the risk is extremely small (less than 1 in 200 patients), and would usually take more than 10-15 years to develop. Most would agree that the benefit of radiation therapy in reducing the risk of their breast cancer returning outweighs any risk of developing a cancer caused by radiation.

### Specialist breast care nurses

You may have already met a specialist breast care nurse at the hospital where you had your surgery. There are breast care nurses at the radiotherapy department and you are welcome to see them during your radiotherapy treatment. If you would like to see them to discuss any worries or ask any questions about your disease or treatment, ask the radiographers or nurses to contact them.

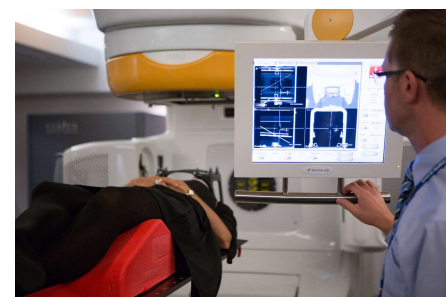
### Arm exercises

If you were shown arm exercises after your surgery it is important that you continue to carry them out during radiotherapy. You should continue with the exercises for a few months after radiotherapy finishes. The exercises help to regain shoulder movement and help to prevent joint stiffening. If you have not been shown how to do the exercises or are having difficulty with moving your arm, the radiographers or nurses can advise you or refer you to the breast care nurses. Gentle swimming is also a good form of exercise. However, please ask your doctor if swimming is appropriate for you. If you are able to swim you should shower well afterwards using a non-perfumed soap to rinse away the chlorine as this can dry the skin. Gently pat the skin dry and apply a layer of aqueous cream

### Breast prostheses

If you have had a mastectomy you will have been given a temporary soft prosthesis after your operation (also known as a cumfee). You can continue to wear the cumfee during your treatment, however you may find wearing a bra uncomfortable. If possible avoid wearing a bra when you are at home to prevent friction in the treatment area, which will help reduce the skin reaction. You may have been given a silicone breast prosthesis. It is advisable not to wear this during the

treatment as it may cause skin irritation. If you have not been fitted with a silicone prosthesis this can be done at the hospital where you had your surgery, when radiotherapy has finished. It is advisable to wait for one month so any skin reaction has settled down. Advice on prostheses and bras can be obtained from your own breast care nurse or surgical appliance office at your hospital. Alternatively the breast care nurses here can advise you on this aspect of your post-operative care. As with any kind of treatment, there is a risk of side effects from radiotherapy. There are considerable variations between individuals in the severity of the side effects and which side effects occur. There are side effects which occur during treatment (acute) and more long term side effects which can occur many months or years after treatment. We feel it is better if you are kept informed of all the possibilities.



### Support

This booklet deals with the physical aspects of your treatment, but your emotional wellbeing and that of your family is just as important. Having treatment can be deeply distressing for some patients. Within the radiotherapy department there will be access and support from your specialist nurse, Radiation Oncologist, the treatment radiographers and the radiotherapy nurses.

However, if you feel you require further medical or emotional support, you can be referred to a variety of health professionals who can help with any worries or difficulties you may be having. All the staff are here to make sure your treatment goes as smoothly as possible and to support you through this difficult period. We will try to help you with any questions or problems you may have.

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### *After your radiotherapy has finished*

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Once your radiotherapy treatment has finished you will be given a follow-up

appointment to see your doctor in about four to six weeks.

The side effects you may have experienced will continue after radiotherapy treatment has finished. It is common to experience a persistence of the skin reactions for about 10 to 14 days after radiotherapy. Please feel free to contact the department, your Radiation Oncologist or the nursing staff if you are worried

**USEFUL CONTACT INFORMATION**

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**ICON Freemasons Radiotherapy**  
 Basement  
 LG, 14 Grey Street  
 East Melbourne VIC 3002  
 Reception 9483 3331  
 Facsimile 9483 3332



**Other Treatment Locations:**  
 Mulgrave  
 Coburg  
 Geelong  
 Warnambool

**ADDITIONAL INFORMATION**



**Parking**  
 During your radiotherapy treatment, parking will be provided for one vehicle. This will be explained to you when you attend the center for your planning appointment.

**Treatment Costs**  
 The radiotherapy treatment will be administered by Epworth Radiation oncology under the supervision / direction of Dr Andrew See.

Epworth Radiation oncology will invoice / charge you for your treatment and an Epworth business manager or administration clerk shall discuss this with you during your initial appointment. Dr See will also discuss this with you during your medical consult