

Breast Cancer: Radiation therapy treatment

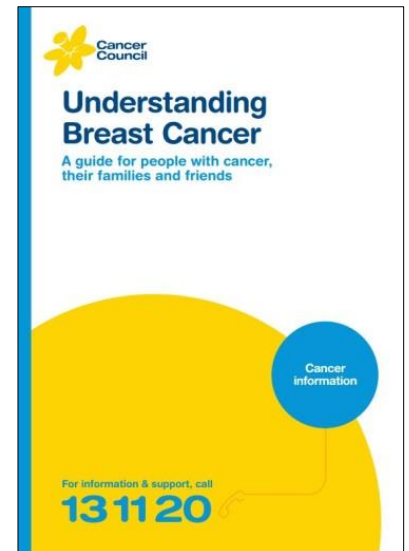
**Information for patients,
families and friends**

About this booklet

This booklet is designed to give you information about radiation therapy treatment for breast cancer and what to expect.

If you have any questions please speak to your Radiation Oncologist or the other helpful staff at Alfred Health Radiation Oncology during your next visit.

The Cancer Council of Victoria produces an easy to read breast cancer information booklet. Copies of the booklet can be found at Alfred Health Radiation Oncology or go to their website www.cancervic.org.au.



Why use radiation therapy after breast surgery?

Radiation therapy after breast surgery helps to reduce the chance of the cancer returning. The chance of cancer returning to the breast after breast conserving surgery is around 20-40% by 10 years. By using radiation therapy we can reduce this risk to less than 5%.

After mastectomy some patients may still be at risk of a recurrence in the mastectomy area or the region of breast reconstruction. Radiation therapy will help to reduce the risk of the cancer returning in the mastectomy area or breast reconstruction.

Radiation therapy may also be recommended to treat the lymph node areas adjacent to the breast, to reduce the risk of the cancer returning in these areas.

Would my chance of cure be better if I had a mastectomy?

Your surgeon will have advised you to have breast conserving surgery, where part of the breast is removed or a mastectomy, where the entire breast is removed. If you have breast conserving surgery and radiation therapy the chances of cure are equal to having a mastectomy and this allows you to retain a breast.

If I am having chemotherapy, do I still need to have radiation therapy?

After breast conserving surgery – Yes.

After mastectomy – When advised by your doctors.

Both treatments are given for different reasons and they work in different ways, so one cannot replace another. Some side effects may be increased if you are having both treatments. You may, therefore, expect to experience more tiredness than if no chemotherapy is needed.

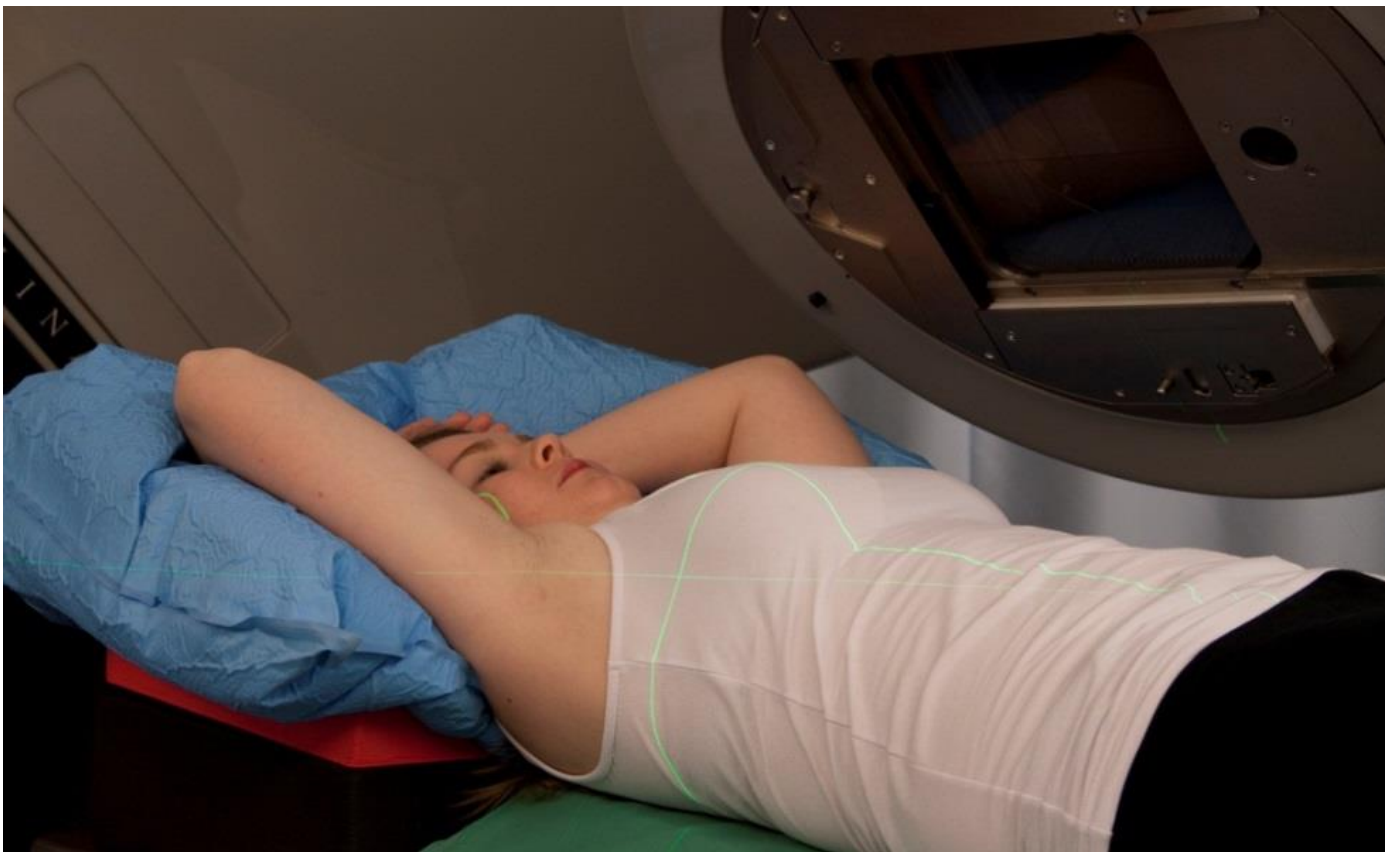
The planning (simulation) appointment

The planning team consists of at least two radiation therapists (male and/or female) and your Radiation Oncologist. Your Radiation Oncologist may be accompanied by their registrar.

If you think you may not be comfortable or have reservations about this, please mention this prior to your planning session to allow us to work through any issues. Often just talking about your concerns before they happen can make all the difference.

You will be positioned on the CT table, which is quite firm, as in the image below. It may be necessary to try more than one position before it is decided which position works best for you.

Our version of a bean bag is placed under your head, shoulders and arms. The air is removed from the bean bag which creates a firm mould of your shape and provides support for your arms. The bean bag helps us to position you correctly each day for treatment and is used for the duration of your treatment.



Positioning for breast radiation therapy treatment with bean bag under head, shoulders and arms

Lines are drawn on your skin with semi-permanent marker. The lines are drawn on both side of your body to ensure your position can be easily reproduced during treatment.

Small pieces of wire are temporarily taped to your skin over the lines, so that they can be seen when the CT-scan is done. During the CT-scan you will be required to stay as still as possible and breathe normally. Drapes are used to ensure that you are only uncovered when necessary. You do not need an injection of contrast for this CT-scan.

Once the CT-scan has been completed more lines will be drawn on your skin and small pieces of tape will be placed over some of the lines to help keep the lines on.

Measurements and photographs of the treatment area will be taken as a record of your lines and set-up position. These are kept on file and not used for any other purpose.

We do not use tattoos. The skin marks will remain on the skin for the duration of your treatment. These lines are not permanent and can come off onto clothing, so leave your best underwear items at home. If you are wearing a low cut top some of the lines might be visible, so be mindful when dressing for this session.

After the planning session, a radiation therapy plan is created on a computer and approved by your doctor. There may be a gap of two weeks until the treatment begins.

The treatment team

At Alfred Health Radiation Oncology we have multiple treatment rooms that you may be treated in. The treatment is the same regardless of which room you are in.

You will find most of the treatment is on the same machine, however sometimes you will be moved to another machine.

This happens if your usual machine is being serviced, or is running late, to accommodate various schedules and to fit everyone in.

Each treatment room has a different team, both male and female members, and at times the team members move for a variety of reasons.

The treatment machines in each room may differ slightly in appearance or even the noises they make, however the functionality and standard of treatment are the same.

The treatment rooms are kept cool to ensure the correct functioning of the treatment machines. Some patients feel cold in the gowns which are provided for treatment, so you may prefer to bring your own gown from home. Wearing a beanie or covering on your arms may also be an option. Please let the staff know if you are cold and we can provide you with a blanket.

Side effects

Below is a list of the most common side effects associated with radiation therapy to the breast and chest wall. Side effects may not be limited to the following, so if you have any concerns please speak to your Radiation Oncologist.

Side effects can be divided into three groups:

- Acute – those which happen during treatment.
- Delayed – occur 2-3 months after treatment completed.
- Late – occur greater than 6 months after treatment completed.

Acute side effects

Tiredness

Most people experience tiredness during radiation therapy treatment. This is usually mild and begins 2-3 weeks after treatment starts and continues 2-6 weeks after treatment is finished. If you are also having chemotherapy it is likely you will experience more tiredness, which will last longer after your treatment is completed.

This is not normally debilitating and in itself should not affect your daily activities or ability to drive. However, you may wish to go to bed earlier or take a rest during the afternoon. We strongly encourage you to continue your regular activities like walking or light exercises.

Skin Changes

All patients get some skin changes in the treatment area by the time they complete treatment. The skin changes usually become noticeable 2-3 weeks after treatment has started and may get worse 1-2 weeks after finishing. Tanning of the skin can sometimes last for several months before it completely disappears. Depending on your treatment, these changes may involve the skin of the lower neck, just above the clavicle (collar bone) and armpit as well as the breast, mastectomy or reconstruction area.

These reactions are normal inflammatory changes in the skin, in response to the radiation treatment. A number of things can make skin reactions due to radiation therapy worse.

These include:

- having chemotherapy at the same time as radiation therapy
- being overweight
- other health problems, such as diabetes
- having sun-damaged skin
- smoking.

Redness, discomfort and irritation of the skin

The first change is usually warmth in the skin followed by pinkness. This is likely to progress during treatment to a darker pink or redness and can resemble mild sunburn.

Occasionally this can be marked redness. A small number of patients will experience small blisters, or the top layer of skin rubbing off, revealing a small, red, moist patch. This is more likely to happen where the bra rubs against the skin or skin rubs against skin.

Rash

Sometimes a pimple like rash develops, more likely in the skin of the upper, inner treatment area. This can be itchy. It is caused by inflammation of the hair follicles.

Pigmentation of the skin

If you have a tenancy to tan easily then you may tan in the treatment area, and this can peel like a tan does, on completion of treatment.

Swelling, aches and pains

During radiation therapy the treatment area may become swollen. This usually begins 2-3 weeks after treatment starts and becomes more obvious during the treatment course. The breast may feel heavier and more uncomfortable. Short, sharp, shooting pains or twinges may also occur. These are nothing to worry about, but can be a nuisance.

The swelling usually settles 4-6 weeks after completion of treatment. Simple pain killers e.g. paracetamol or ibuprofen can be used if required.

Sore throat

If you are having radiation therapy to the area above the clavicle (collar bone) and/or under the arm, the lower neck will be treated. A small number of patients will develop a sore throat. It starts about 2-3 weeks into your treatment and often lasts only 2-3 weeks. Simply avoiding hot, spicy or acidic foods and strong alcohol during that period is usually all that is needed. If this does not work, please let your doctor or nurse know, and something will be prescribed for you.

Emotional changes

It is quite common to experience emotional and mood changes during any treatment for cancer. If this is a concern for you, please discuss this with your doctor or nurse. You can also speak to a cancer support nurse or receive a referral to a psychologist.

Nausea

This is extremely unusual during this type of radiation therapy. If it occurs please discuss it with your doctor or nurse.

Caring for your skin

Your Radiation Oncologist (and/or registrar) and nurse will see you regularly throughout your treatment and advise you on any specific treatment required.

Sorbolene cream is safe to use. It will be provided by your nurse. It will not stop any of the skin reaction from occurring, but will help to sooth the skin. If you wish to use other skin creams during treatment please discuss these with your doctor or nurse.

Underarm deodorant can be used safely by most patients during treatment. If it causes discomfort, it should be discontinued.

You should avoid shaving or waxing the armpit during treatment and for a couple of weeks after as it may aggravate the skin. You can have showers or baths but use a mild soap, e.g. Dove or baby soaps.

If you develop any blistering or an area where the skin rubs off you should see your nurse who will advise you accordingly.

Loose cotton clothing helps to keep the area cool. Placing a soft cotton handkerchief between your bra strap and your skin, especially underneath the breast, may help prevent blistering and chafing.

Delayed side effects

Swelling, firmness and tenderness

Approximately 10-20% of patients notice that the treatment area becomes firmer and somewhat tender 2-3 months after completion of radiation therapy. This can occur whether or not there was swelling during the time of the treatment.

In the majority of cases this swelling/firmness settles in several weeks. It can occasionally last for several months and very rarely 2-3 years. It usually settles by itself. If it is uncomfortable massage can be helpful. Your doctor will be able to discuss other treatment options with you.

Skin pigmentation

If you have tanned skin in the treatment area, this may take several weeks and occasionally several months to completely disappear.

Lung inflammation

All patients having breast radiation therapy will have a small amount of lung included in the treatment. In a very small number of patients (less than 1 in 1000) inflammation may develop in the lung. This is known as pneumonitis. If this develops, it is usually 2-3 months after the completion of the treatment. The symptoms of this may include a cough, tiredness and very rarely, breathlessness and fever.

If these symptoms develop an x-ray or CT-scan may need to be arranged. Most cases settle without treatment. A small number of cases may need to be prescribed a course of antibiotics and/or corticosteroid tablets.

Late side effects

Breast

Breast tissue beneath the scar will usually feel a bit firmer than the surrounding breast tissue as a result of both surgery and radiation therapy. It is useful for you to become familiar with the scar area by performing regular breast self-examination. You will have regular check-ups with your doctors after the treatment is completed, so do not worry if it is not easy for you to tell what is normal. The amount of surgery, along with the firmness and scarring, may in a small amount of women, mean that the breast ends up looking smaller than the opposite breast.

About 1 in 1000 women will be more sensitive to radiation than normal. This will cause the breast to shrink. There is no way to know if this will happen to you.

Mastectomy and breast reconstruction changes

The skin in the mastectomy area and over the breast reconstruction may become firmer with time as a result of radiation therapy. It is useful for you to become familiar with the mastectomy area/ reconstructed breast by performing regular self-examination. You will have regular check-ups with your doctors after the treatment is completed, so do not worry if it is not easy for you to tell what is normal.

Radiation therapy can also affect the appearance of the breast reconstruction and can influence future surgical reconstruction options. These effects are very difficult to predict and your Radiation Oncologist will discuss this with you further.

Skin changes

The colour, texture and sensation in the skin can also be subtly altered, due to a combination of surgery and radiation treatment. If a boost of radiation is given to the scar, these changes in the breast tissue and skin may be more pronounced. This is because a higher dose of radiation is given to this area of the breast.

A small amount of women will develop telangiectasia (tiny, more prominent blood vessels in the skin) in this scar or treatment area. If these develop they are permanent. Occasionally they are also seen underneath the breast or in any skin folds that are treated.

A small number of women will develop pale skin on the nipple and areola (coloured circle around your nipple).

Hair loss

If you have had radiation therapy to the area under your arm, you may experience hair loss in this area. This can be permanent.

Aches, pains and rib fractures

A small amount of patients find that the treatment area remains uncomfortable. This usually improves slowly over the first couple of years after treatment. This can be persistent in a very small number of patients.

The ribs and muscles between the ribs, which are in the treatment area, can feel tight and uncomfortable. If this is a result of the radiation it will not usually be severe enough to require pain medication. If you have not exercised or stretched the area for some time it would be beneficial to start a program where your physical activity slowly increases over time.

Rib fractures, as a result of radiation therapy causing the bone to become more brittle, are very rare (less than 1 in 1000).

Lung scarring

A small scar can occur in the very small area of lung that is included in the radiation therapy treatment area. This scarring occurs slowly over a period of several years after completing treatment. It is extremely unlikely that you would ever experience any symptoms from this.

It is usually identified when you have a chest x-ray or CT scan of the chest performed for another reason, and it is commented on as an incidental finding.

Nerve or blood vessel damage

If you need to have radiation therapy to the area above the clavicle (collar bone) and/or under the arm there is a very rare possibility that you may develop damage to the nerves and/or blood vessels. This can lead to changes in the sensation and function of the arm.

Heart damage

In the past, machines and techniques we used to treat the breast and mastectomy area caused larger areas of the heart to receive radiation. In less than 1 in 1000 patients this can cause narrowing of the coronary arteries, which occurs slowly over 10-20 years.

This can lead to angina (heart pain) and heart attack. Today, the machines and techniques have improved considerably and it is possible to exclude the heart from the radiation field for most patients, therefore eliminating this risk.

In a small number of patients it is not possible to completely exclude the heart from the radiation field and a small strip at the front of the heart will receive some radiation. This will be kept to a minimum which will significantly reduce the potential risk of heart disease.

Lymphoedema (arm swelling)

Radiation treatment to the breast, mastectomy or reconstruction area does not increase the risk of lymphoedema. If you need to have the lymph node area above the clavicle (collar bone) treated, the risk of arm lymphoedema will increase by 1-2%.

If you need to have the lymph node area under the arm treated with radiation therapy the risk of lymphoedema will increase further. If you have had the lymph nodes removed from under the arm and also need to have radiation treatment to this area, the risk of arm lymphoedema can be up to 30-40%.

Lymphoedema can occur in the months after surgery, but also can occur several years after treatment is completed. It is important to be aware of this risk and know how to best look after your arm. Your surgeon or Radiation Oncologist will discuss the risk with you further and ensure that you have contact with a lymphoedema specialist, physiotherapist or occupational therapist.

This is to help minimise the risk of arm lymphoedema and to ensure that if it does develop, it can be managed quickly.

Another cancer

It is known that radiation exposure may cause another cancer many years after treatment. This risk is very small (about 1 in 1000 – 10,000) and is heavily outweighed by the potential benefit of the treatment to you. If you smoke cigarettes, this can increase your risk, so it is important that you stop. If you have any questions or concerns about this please discuss with your Radiation Oncologist.

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If you would like to provide feedback or request a copy of this information in a different format, contact us at patient.information@alfred.org.au



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