



Royal Free London
NHS Foundation Trust

Radiotherapy for breast cancer

Information for patients

This leaflet provides information regarding the use of external beam radiotherapy in treating breast cancers, including details of the procedure and side effects that you may experience.

Although you may have heard about radiotherapy from friends, relatives and/or other patients, it is important to remember that their experience may not be the same as yours. In all cases, a doctor will explain your radiotherapy treatment to you and answer any questions you may have.

We are here to help so if you would like further information or have any particular concerns, please do not hesitate to ask a radiographer or a member of the radiotherapy review specialist team.

In most cases, a friend, relative or carer may accompany you to your appointments. This will depend on any infection control guidelines currently in place. Please ask your doctor or a member of the radiotherapy team if this is possible.

What is radiotherapy?

Radiotherapy uses precise, carefully measured doses of high energy x-rays to treat cancer. Cancer cells are more sensitive to radiation than normal cells and the aim of treatment is for the x-rays to either destroy the cancer cells or stop them from growing. This happens whilst avoiding and protecting the normal cells as much as possible.

Radiation also damages normal cells in or around the area being treated which causes side effects, but these will usually recover and heal after treatment.

Using external beam radiotherapy to treat breast cancer

Radiotherapy is normally used to treat the whole breast or chest wall area. In some cases, your doctor may discuss only treating part of the breast tissue if this is beneficial for you.

You will need to attend the radiotherapy department as an out-patient, for a course of daily treatments from Monday to Friday. The number of treatments can vary but will usually be for a period of one to three weeks.

You may also be given an extra dose of radiotherapy to the original site of your tumour or scar area. This is known as a 'boost' and will usually be given during the last week of treatment. This will make your overall treatment course a little longer.

Each appointment should last around 15-30 minutes (although your hospital visit may be longer).

Preparing for your treatment

It is important that your surgical wound has fully healed, or any build-up of fluid (seroma) in the area has settled before treatment is started.

You will need to raise your arms above your head during your planning and treatment sessions, so it is important that you have regained movement in your arms after surgery.

After surgery, it can be difficult or painful to lift your arm above your head and keep it there for the duration of the planning or treatment session. If this is the case, talk to your breast care nurse or radiotherapy review specialist, who may arrange for you to see a physiotherapist. You may also like to take some pain relief such as paracetamol before your radiotherapy appointments to ease any discomfort.

If you are experiencing any issues with your arm movement or healing after your surgery, please mention this to your doctor or to a member of the radiotherapy team when they contact you to book in your planning appointment.

Breath hold in radiotherapy

Depending on the exact area being treated, there is a chance that radiotherapy treatment may affect your heart. This most commonly occurs when the treatment area includes the left breast, left chest wall, or a group of nodes called the internal mammary chain (IMC) on either the right or left side of the chest. A technique called deep inspiration breath hold (DIBH) is used to minimise this.

Not everyone will be able to perform DIBH, and this technique may not be suitable for all patients.

An additional information leaflet “Deep inspiration breath hold (DIBH) for radiotherapy” is available which will provide you with more information about this and if it would be suitable as part of your treatment.

Radiotherapy to additional areas of lymph nodes

Some patients require treatment to their axilla (the armpit region), supra clavicular fossa (the area above the collarbone) or the internal mammary chain (the area where your breast/chest wall meets your breastbone).

If this is necessary for you, your doctor will discuss this when you agree to (consent for) your treatment.

Planning your radiotherapy treatment

Before starting your treatment, your medical team will ensure your programme of radiotherapy meets your specific needs. To

help with this, you will be asked to attend the radiotherapy department for a planning scan. This is done using a computerised tomography (CT) scanner, which takes x-rays of the area to be treated. This allows us to build up a 3D picture of your body.

You will be asked to undress above the waist and will be given a gown to wear. It may be helpful for you to wear a top that is easy to take off and put on.

We will ask you to lie down on the treatment couch of the machine and raise your arms above your head – you will be supported by a special piece of equipment designed specifically for this purpose. For this reason, it is important that you have regained your arm movement following surgery and are able to comfortably raise your arms above your head before you start treatment.

A specially trained member of the radiotherapy team or one of the doctors will mark your skin to indicate the areas that require treatment.

At this stage they will assess the area where you received surgery and examine the edges of your breast tissue. These marks will provide additional information for the planning process. The radiotherapy team member or doctor will then stick markers to your skin that will be visible during your CT scan.

At the end of the CT scan, three permanent ink markings will be made on your skin using a pinprick of ink. These are used to make sure that you are accurately positioned for your treatment each day.

Receiving your radiotherapy treatment

Treatment will usually start a few weeks after your planning appointment. Each session takes about 15-20 minutes.

The radiographer will carefully position you on the couch in the exact position you were in for your planning appointment. They will use the permanent marks to align you correctly.

The machine will move around you. Once your radiographers are satisfied that all of your pre-treatment checks have been made, they will leave the room to switch the machine on. It is important that you keep still at all times and follow the radiographer's instructions during the radiotherapy treatment.

Each treatment lasts a few minutes, during which you will be alone in the room. The radiographers will observe your treatment and, if necessary, will be able to talk to you from the next room. You will not see or feel anything when the machine switches on, but you will hear the machine buzzing. The machine will come close to you but it will not touch you.



Figure 1. Virtual image of the radiotherapy treatment machine.

Side effects of radiotherapy treatment

Short term side effects

Some side effects are short term or known as acute side effects. These will typically worsen gradually for two to three weeks after you finish your treatment and take a further two to three weeks to improve. This may not be the case during your treatment but if you are concerned about any side effects you are experiencing, speak to a member of your medical team.

Examples of possible short term side effects from radiotherapy for breast cancer can include the following:

Reactions on your skin

Initially you may notice some redness that may look like sunburn. If you have darker skin, the reaction may get darker or develop a blue or black tinge.

Increased pigmentation (darkening of the skin), tenderness or itching in the treatment area usually occurs around 10-14 days after treatment has started, although this can sometimes happen later or after your treatment has finished.

As your treatment continues, the skin may peel or flake and this may result in a red, sore, moist and weepy skin reaction. It is important to take special care of the skin on the area being treated. Skin care advice will be given to you by the radiotherapy review specialist team once you start your treatment.

Pain in the breast area

Occasionally you may have aches, twinges, or sharp pains in the breast area. Although these are usually mild, they can continue for some time after treatment is finished. In some cases, this may continue for months or even years. Pain or discomfort will usually become milder and less frequent over time.

You may also experience stiffness and discomfort around the shoulder and breast area from lying in the treatment position. This may also happen after your treatment has finished. Continuing with your arm and shoulder exercises during and after treatment can help minimise or prevent stiffness or discomfort.

Tiredness

Radiotherapy may make you feel tired, and this may continue for a month or two after your treatment finishes. Gentle exercise can help with this.

You may experience some or all these side effects. Please always let the radiotherapy team know of anything worrying you, as we want to help you recover as soon as possible.

Long term side effects

Some side effects are long term. These usually start to occur more than three months after finishing your course of treatment, but sometimes much later.

Longer term side effects can include:

Breathlessness

A few months after radiotherapy treatment has been completed, some women develop breathlessness due to the effect of radiotherapy on the lungs. This will usually get better within two to four weeks without any treatment or with a short course of steroid medicines. Radiotherapy rarely causes any long-term damage to the lungs.

Side effects relating to the heart

Although patients worry about the effects of radiotherapy on the heart, it very rarely causes heart problems, and only patients who had cancer in their left breast may be at risk.

Weakness in the ribs

It is rare that radiotherapy weakens the ribs in the treated area, making them more likely to fracture than normal.

Lymphoedema

Lymphoedema is swelling caused by a build-up of lymph fluid in the tissues. This is usually because of damage to the lymphatic systems following surgery.

Radiotherapy to the lymph nodes under the arm and surrounding areas (such as the neck or chest) can increase the risk of lymphoedema. If you are more likely to develop this side effect, your medical team will discuss this with you.

After your treatment

The follow up from radiotherapy treatment can vary depending on the course of treatment you have received. Sometimes you may be referred back to your surgeon or chemotherapy doctor for follow up. You may also be required to see your radiotherapy doctor again as part of this process.

You will normally receive a follow up appointment with the radiotherapy review specialist team around six weeks after your final radiotherapy treatment. This may sometimes be a telephone appointment. Out-patient appointments will then continue initially on a three-to-six-month basis, or more frequently if required.

Support available at the Royal Free Hospital

If you require support either during or after your radiotherapy treatment, there are a number of support services available. If you would like to know more about these, please read our leaflet: 'A patient's guide to radiotherapy' or ask a member of the radiotherapy team.

Useful contacts

Royal Free Hospital radiotherapy department reception

Telephone: 020 7830 2919, Monday-Friday, 8.45am to 5pm

Radiotherapy review specialist

Telephone: 020 7830 2919, Monday-Friday, 8.45am to 5pm

Royal Free Hospital Macmillan cancer support and information specialist

Telephone: 020 7794 0500 extension 31337 Tuesday-Friday
10am to 4pm

Email: rf.cancerinfo@nhs.net

Maggie's at the Royal Free Hospital

Telephone: 020 3981 4840

Monday-Friday, 9am to 5pm

Email: royalfree@maggies.org

Website: www.maggies.org/royalfree

Royal Free Hospital radiotherapy and oncology counsellors

Telephone: 020 7472 6739, Monday-Friday, 9am to 5pm

Royal Free Hospital breast care nurses

Telephone: 020 7794 0500 extension 35359, Monday-Friday 9am to 5pm.

Further information

There is a video available from the Royal Free Hospital on attending for breast radiotherapy. You can watch the video by clicking here: www.royalfree.nhs.uk/services/services-a-z/cancer-services/radiotherapy-services/radiotherapy-treatment-to-the-breast/ or by scanning the QR code at the end of this leaflet.

More information

For more information about the radiotherapy service at the Royal Free London, please visit our website:

www.royalfree.nhs.uk/services/services-a-z/cancer-services/radiotherapy-services/

Your feedback

If you have any feedback on this leaflet or for a list of references for it, please email: rf.communications@nhs.net

Alternative formats

This leaflet is also available in large print. If you need this leaflet in another format – for example Braille, a language other than English or audio – please speak to a member of staff.

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