

Having radiotherapy for breast cancer

Cancer Services

Information for patients

Produced: Nov 2023

Review: Nov2026

Leaflet number: 604 Version: 13

Introduction

This booklet will tell you about radiotherapy treatment for breast cancer and the side effects that you may experience during and after radiotherapy treatment and how to manage them.

Treatment

Please be aware that you may be treated by male or female radiographers.

Radiotherapy is carefully planned and ways of giving it have improved over the years to ensure that the side effects are kept to a minimum.

Before you start your treatment you will have a CT scan in order to plan your the treatment. It is important that your chest shape remains the same during treatment. Please tell us if you have had problems with a build-up of fluid (seroma) following surgery which required draining, as it may be necessary to have this drained again before the scan.

Deep Inspiration Breath Hold (DIBH) technique

The DIBH technique can be used in order to avoid part of the heart in the treatment area. As everyone is different due to their size, shape and internal anatomy this technique will not be suitable for everyone. Your doctor or radiographer will tell you whether or not DIBH is suitable for you.

When you take a deep breath in and hold your breath, your lungs expand, moving your breast and chest wall away from your heart. In many patients this is helpful in reducing the dose of radiation to the heart and the lung whilst ensuring that the breast/chest wall area receives the full dose of treatment, as prescribed.

**Health information and support is available at www.nhs.uk
or call 111 for non-emergency medical advice**

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To give feedback about this information sheet, contact InformationForPatients@uhl-tr.nhs.uk

Your planning scan

You will have a planning CT scan before you start treatment. It will help if you have practiced holding your breath for 20 seconds: it is important to take a deep steady breath in. If you have access to the internet, please visit the following website for help with practicing:

www.respire.org.uk (scroll down to the bottom of the first page).

The radiographers will explain this technique to you in more detail at your planning appointment. The DIBH technique does not suit everybody so do not worry if you cannot manage to do this as there are other methods we can use to avoid treating the heart if necessary.

A special camera monitors your breathing with the help of a small plastic box placed on your chest.

The CT scan procedure takes about 30-40 minutes and we will ask you to hold your breath a few times for approximately 20 seconds.

You will be able to see a small screen that shows if you are taking enough air into your lungs.

The pictures below show what you will see.

The yellow bar shows your own breathing and moves up and down the screen as you breathe in and out; the blue box is the area for breath hold to occur in.



Normal breathing

Taking in breath

Holding breath

Your radiotherapy treatment

When you come for your radiotherapy treatment, we will help you to get into the correct position and we will ask you to take a steady breath in and hold your breath several times. The radiographers will tell you when they are happy with your breathing pattern and then leave the room.

Breathe normally until the radiographers let you know (via the intercom system) that they are ready to begin treatment. You will be asked to take a deep breath in and to hold it. This will move the yellow bar on the screen into the blue area. Once you hold your breath, you will see that the yellow bar on the screen turns green: the treatment machine will turn on and deliver the treatment. When you breathe out the bar will drop back out of the blue area and will turn yellow again. The machine will turn off once bar is yellow.

You may need to hold your breath several times during treatment. Between each "breath-hold" it is important to completely relax your chest. If you breathe out during the delivery of the radiotherapy, the machine will automatically turn off. It is not possible to be treated incorrectly as the machine will not switch on if your breath has not raised the bar high enough. The radiographers will also be monitoring you the whole time: they can see and hear you and will help guide you through the procedure.

The treatment procedure takes about 20 minutes.

Side effects of radiotherapy to the breast

When your doctor talked to you about the treatment options available, the side effects of radiotherapy will have been explained, some happening soon after treatment and some appearing months or years after radiotherapy. These are often discussed in terms of early and late side effects.

Early side effects

These occur during your treatment. They are temporary and generally develop during the second half of treatment. They usually get worse for about seven to ten days after the end of treatment, after which they gradually get better.

Skin changes

As treatment progresses you may notice your skin becomes drier and reddens in the treatment area. It may also become dry and itchy.

Rarely, moist patches may develop and small blisters may appear (usually occurring in the fold under the breast, armpit or area given a "boost").

Advice:

- During treatment we advise you to wash your skin using warm water and un-perfumed soap, shower gel or bubble bath.
- Pat your skin dry with a soft towel and do not rub the treatment area vigorously.
- Apply a moisturiser to the area - use at least twice a day from the start of treatment. However do not use cream on broken skin. Please ask for further advice if this happens.
- Drink plenty of fluids so that you are well hydrated throughout treatment.
- Deodorant may be used sparingly unless irritation occurs.
- If you wish to shave underarm hair, use an electric razor.
- Wear loose comfortable clothing made from natural materials.
- **Do not** use talcum powder or perfumes as these can irritate.
- **Do not** use a sun bed or expose your skin to strong sunlight. Factor 50 sun block should be used to protect skin in the treated area, once treatment has finished, for a least a year.
- **Do not** wear tight and under-wired bras as these may rub and make your skin more sore.
- **Do not** swim if you have visibly red and moist skin.

Side effects can be worse if you smoke, so it is advisable to stop. If you would like further advice on this please ask.

Tenderness and swelling of the breast

In addition to skin changes, radiotherapy can cause inflammation of the breast tissue which can lead to swelling, tenderness and discomfort in your breast. This will begin to settle a couple of weeks after the end of your radiotherapy treatment.

Tiredness

Fatigue is a very common side effect of radiotherapy treatment. Towards the end of treatment you may feel more tired than usual, and this may continue for a month or two after the treatment finishes. Do not worry, as this is a normal reaction. It is usually a combination of travelling to and from hospital, the side effects of treatment, coping with a diagnosis of cancer and continuing with normal life.

Advice

Try to do some gentle exercise, but only do as much as you feel you can and rest when you are feeling tired.

Late side effects

Late side effects can occur months or years after radiotherapy is finished. The degree and frequency depends on the dose of radiotherapy given and the particular site that has been treated.

Late side effects may include:

Lung problems

Between one and three months after the end of their radiotherapy, you may get radiation pneumonitis. This is inflammation of the lung and can cause symptoms such as breathlessness, a dry cough or chest pain. If you already have a chest problem (such as asthma) or if you smoke, these symptoms can be more severe. However, the symptoms usually improve over time.

Skin changes

- There may be some change in pigmentation of the skin on the treated area, resulting in the skin becoming a shade darker.
- The skin in the area treated will be more sensitive to the sun, so it advisable to use factor 50 sun block.
- The breast may be firmer in texture.
- 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.
- Slight decrease in breast size (this is only likely to be noticeable for a small number of patients). This is caused by fibrosis or thickening of the underlying breast tissue.
- Some patients develop dilation of the tiny blood vessels in the breast that can make the area look noticeably red with threaded veins. This is called telangiectasia.
- Treatment may cause scar tissue to form, which can affect the cosmetic results of reconstruction, particularly an implant-based reconstruction.

Lymphoedema

Surgery or radiotherapy to the lymph nodes in the armpit (axilla) can sometimes lead to lymphoedema, which is swelling of the arm on the treated side. Patients who have had all or a large number of lymph nodes under the arm removed are more at risk. Lymphoedema (swelling) can also occur in the breast tissue, which can lead to discomfort.

If you develop lymphoedema you may be referred to the lymphoedema clinic by your nurse, doctor or radiographer.

Nerve damage

If you have had radiotherapy to the lymph nodes in your lower neck (supra-clavicular fossa) and/or axilla, a very rare side effect is brachial plexus neuropathy. This is caused by damage to the nerves in this area and can lead to pain, weakness, altered sensation and restricted movement to the arm and hand.

Other rare late side effects

- If radiotherapy is unavoidably given to a small portion of your heart, this may lead to cardiac (heart) problems in later years. Your doctor will discuss this with you if there is a significant risk to you.
- Some patients experience weakening of the bones in the treated area. The bones at risk are the ribs on the side of the body being treated. Your collar bone may also be affected if you have had the nodes treated. This may increase the risk of a fracture in later years.
- Radiotherapy can cause hardening and thickening (fibrosis) of lung tissue which can cause problems with breathlessness. These symptoms can be worse if you already have a chest problem or if you smoke.
- If treated, the shoulder joint may become stiff but this can be improved with exercise or physiotherapy.
- An exceptionally rare side effect of radiotherapy is the risk of treatment causing another cancer ten or more years after treatment. However, the benefits of having the treatment far exceed any risk of this.

Questions

Please ask us if you are worried about any aspect of your treatment.

If you have any questions relating to radiotherapy after your treatment finishes please ring:
0116 258 7710

We are happy to answer any questions you may have.

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