

Preparation for deep inspiration breath hold (DIBH) radiotherapy treatment for left sided breast cancer

This information is for patients who have been prescribed a course of radiotherapy treatment for left sided breast cancer. Before starting your course of radiotherapy treatment, you will need to practise the important advice contained in this leaflet.

What is DIBH?

Your oncologist (specialist cancer doctor) has referred you for a course of radiotherapy treatment to the left breast/chest wall. The treatment will be delivered during a deep inspiration (breathing in) breath hold. Expanding the chest and holding your breath during treatment allows the radiotherapy dose to be given to the left breast/chest wall whilst avoiding the heart.

The scan pictures below show the chest in cross section – the picture on the left, shows a normal breath hold ('free breathing') and the picture on the right shows a deep inspiration breath hold (DIBH). The red line is the edge of the radiotherapy field and shows how the use of DIBH protects the heart from the high radiation dose.



Why is this information important?

The following instructions will help you to prepare for your radiotherapy planning and treatment appointments in the comfort of your own home. This will help to make sure that you can hold your breath for up to 20 seconds.

What do I need to do?

Your radiotherapy planning CT scan and treatment will be delivered with you lying on your back on an angled board with both arms supported above your head.

Practise this breathing technique at home on your bed; you should be lying on your back with both arms above your head.

Deep inspiration breath hold (DIBH)

All breaths should be taken allowing the chest to expand. Abdominal breathing, as often practised in yoga, would not be suitable for your radiotherapy treatment as it would not adjust the position of the breast/chest wall in relation to the heart.

1. Take two slow breaths in and out, expanding the chest.
2. Breathe in and out, then breathe in and hold your breath for 5 seconds.
3. Repeat steps 1 and 2, increasing in 5 second intervals, aiming to achieve a hold total of 20 seconds.

Your back should not arch, it should remain relaxed and in contact with the bed during your practice.

Repeating this cycle daily will ensure you are familiar and comfortable with the routine that will be followed during your radiotherapy planning and treatment.

What happens if I can't hold my breath for 20 seconds?

Do not worry if you are unable to hold your breath for 20 seconds, Make a note of the longest time that you can manage; and you will be able to discuss this at your planning appointment, where time will be given to practise this technique with a radiographer (radiotherapy specialist) before your planning scan.

If, after practise with a radiographer, you are still not able to hold your breath for 20 seconds, the radiographer will document your maximum breath hold time. This information will allow the radiographers delivering your treatment to ensure that the treatment is delivered in shorter intervals to allow for your personal breath hold.

If breath hold is not possible for you there are alternative ways in which we can reduce the radiation dose received by the heart.

The following website, www.respire.org.uk/resources, provides a good visual aid and explanation to the breath hold technique. Viewing it may help you to feel confident in achieving your breath hold and reassure you should a breath hold not be possible for you.

You will shortly receive a phone call from the Radiotherapy Department offering you a planning appointment. If you have any questions please see contact details below.

Contact details

The radiotherapy admin/appointments team are contactable on 0118 322 7872 or via email: radiotherapy.planning@nhs.net

The review radiographers are contactable on 0118 322 8869 or via email: reviewradiographers@royalberkshire.nhs.uk

The consultant radiographer for breast radiotherapy is contactable on 07557 253 773.

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

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