



Deep Inspiration Breath Hold (DIBH) for radiotherapy

DIBH is a technique where you breathe in deeply and hold your breath during your radiotherapy planning CT scan and your treatment. It is fairly new but research has shown that some patients can benefit from DIBH

Who is it for?

This technique is suitable for people with left sided breast cancer who need radiotherapy. It can help by reducing the amount of heart in the treatment area. When you come for your planning appointment your oncologist or the radiographer will decide if this technique is suitable for you. They will consider if you can hold your breath well enough and if you would benefit from it.

For this treatment, you need to be able to take in a deep breath and hold it for up to 30 seconds. It would be a good idea to practise holding your breath a few times a day at home for several days before coming for your planning and radiotherapy appointments. This will help to improve your ability to take in and hold deep breaths.

You may decide that you do not want to be treated using the DIBH technique; you will have the chance to discuss this with your oncologist or other member of your healthcare team.

How does DIBH work?

During your planning appointment you will be asked to lie on a special board with your arms placed above your head. A small plastic box will be taped to your chest and special camera equipment will monitor your breathing while you are having a CT scan.

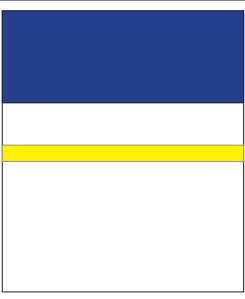
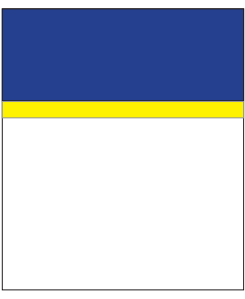
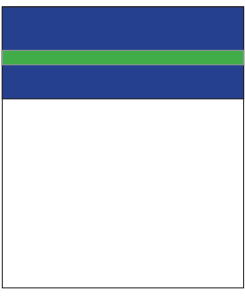
A radiographer will tell you how to hold your breath. You will be asked to take a few normal breaths and then breathe in deeply and hold your breath for up to 30 seconds. When you have practiced this several times, you should be ready for your planning scan.

However, if you find it difficult to hold your breath you may find this suggestion helpful: after taking a deep breath in, release just a tiny bit of air, without lowering the rib cage.

So that you know how deep a breath you need to hold, a radiographer will place a video screen in front of you. The screen will show you a picture which represents your breathing. This will help you to see if you are taking enough air into your lungs to begin the treatment.

The pictures over the page show what you will see on the screen.

- A yellow bar in the picture represents your breathing and it will move up and down as you breathe in and out.
- When you hold your breath, the yellow bar will move up in to the blue area and turn green.
- When the bar is green the treatment machine will turn on.
- When you let your breath go, the bar will drop back out of the blue area and turn yellow again.
- The treatment machine will turn off once the bar is yellow. This is how the machine stops and starts the radiation.

	<p>On your screen, the yellow bar will move up and down as you breathe. This is your normal breathing.</p>
	<p>When you take in a deep breath, the yellow bar will move into the blue area on the screen.</p>
	<p>When the bar is green, hold your breath as coached by the radiographers.</p>

At your planning appointment the radiographers will look at your breathing pattern and set the height of the blue area which relates to your breath-hold position.

It is important that you take in a deep breath to expand your lungs as much as possible, but you also need to be able to easily reproduce this breath. If you have any difficulties taking in enough breath to reach the blue area please inform the radiographers and they can adjust the blue area to make it easier for you.

How long will the planning take?

Please be prepared to be in the department for up to 2 hours. Your breathing teaching session may take up to 20 minutes and the scan will be about 20 minutes. However, occasionally these may take longer.

What happens at my treatment session?

When you come for your radiotherapy, you will be asked to lie on the treatment couch in the same position as you were when you had your planning scan.

After the radiographers have made sure you are in the correct position, they will switch the video screen on. You will be asked to breathe in the same way as during your planning appointment. The radiographers will tell you when they are ready to leave the room.

When your radiotherapy is ready to be delivered, the radiographers will ask you via the intercom system to hold your breath.

Once you have taken in a big enough breath and you can see that the yellow bar in the picture on the screen has turned green, the treatment machine will turn on and deliver the treatment. The machine will turn off if you breathe out. You will need to hold your breath a few times to complete each treatment session.

Please remember that you cannot make the machine treat you incorrectly. If your breath has not raised the bar high enough the treatment machine will not turn on. The radiographers will be watching you and will help you during your treatment.

Your treatment should take about 30 minutes, but be prepared to be in the department for up to an hour.

Who to contact

If you have any questions regarding your treatment please contact the radiotherapy planning department on 020 3826 2621 or 020 3826 2622. As the department is extremely busy, they will take your name and contact details and someone will return your call as soon as they are able to.