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The following content contains images and descriptions of cancer treatment that some people may find upsetting or triggering. Please follow the guidance of your clinical team for information specific to your situation. Some medical terms may not translate accurately when using translation tools.

What is Deep Inspiration Breath Hold (DIBH)?

This page is all about Deep Inspiration Breath Hold, or DIBH for short. DIBH is a technique that your treatment team might need to teach you if you need radiotherapy treatment to your breasts or chest. It means taking a big, deep breath in and holding it while the treatment is happening.

DIBH is not for everyone. For example, if you have asthma, COPD or breathing difficulties you might not be able to do it. Don’t worry. There are other ways to give radiotherapy safely. The team taking care of you will decide the best way to give your treatment.

VIDEO: Deep Inspiration Breath-Hold

https://youtu.be/yGZqBQs0wxI

Why do we use DIBH?

DIBH helps keep your heart, lungs and liver protected during breast and chest radiotherapy. Your treatment team wants the radiation beam to only target your cancer. By using DIBH, we can move nearby organs away from the treatment area to minimize any effects from the radiation.

DIBH can also be used to keep structures still in the chest. Areas in the chest like the lungs move during breathing. Holding your breath can help reduce this movement. If you cannot hold your breath, your team will find other ways to achieve this.

Depending on your needs and where you are treated, your team might have some equipment to help you do the technique, such as a mouthpiece or a monitor that you can follow.

How does DIBH work for those that are able to do it?

DIBH is simple. Here’s how it works:

 You take a deep breath and hold it for about 20 seconds while the radiotherapy is given.

After those 20 seconds, you get a break to breathe as normal. Then you hold your breath again.

Bit by bit, the treatment is given as you hold your breath: either to move your heart, lungs and liver out of the way or to reduce movement in the chest.

When treating the breast as you take a deep breath in, your lungs fill up with air and push your organs away from where the radiotherapy is aimed. This helps protect your organs and keeps your body in the right position for treatment.

You’re in control of your breathing, and the treatment only happens when you’re holding your breath in just the right way. If you can’t hold your breath long enough, don’t worry! The treatment stops until you’re ready again.

Will DIBH work for me?

DIBH might not be for everyone. It depends on how close your heart and other organs are to the area being treated. Your team will look at where the cancer is and decide if DIBH is needed. There are other ways the organs can be protected from the radiation which may be better for you.

Before you start the treatment, your team might suggest that you practice holding your breath at home a few times a day. If you have any breathing difficulties, tell your team and ask them for advice on doing this safely. It’s best to practice lying down, as you’ll be lying down for your treatment, and in case you get dizzy.

What are the risks?

There aren’t any extra risks with DIBH compared to regular radiotherapy. It’s just another way to help keep your heart and other more protected or reduce movement caused by breathing.

Further information

The [Respire project website](https://respire.org.uk/)

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has resources made by healthcare professionals and patient representatives working together. The resources are designed for patients who have been referred for radiotherapy to the breast or chest wall following a breast cancer diagnosis. The main aim is to help patients that need to learn how to hold their breath for a short time during radiotherapy. For some patients, this is known to keep the area to be treated away from sensitive structures such as the heart. If you do not need to use the breath hold technique you may still find some of the resources helpful.