

Important!

Relax and follow the visual and audio prompts. Please remember:

- If your breath does not reach the target area, the treatment machine will not turn on.
- If you release your breath without being told to, the treatment machine will switch off.

The radiographers will be monitoring you the whole time and will help to guide you through the treatment.

Contact Us

Radiotherapy

King George V Wing (KGV), Basement level,
St Bartholomew's Hospital, West Smithfield,
London EC1A 7BE

Radiotherapy Reception **020 3465 5222**
Emergency Hotline (when the department is
closed) **07917 093 738**

Macmillan Cancer Information Centre

Vicky Clement-Jones

West Wing Ground Floor, St Bartholomew's
Hospital
Mon–Fri: 10am–12noon 2–4.30pm
Tel: 020 346 56611

Maggie's Centre @ St Barts

St Bartholomew's Hospital, West Smithfield,
London, EC1A 7BE
Tel: 0203 904 3448
Drop in Mon-Fri: 9am–4pm
<https://www.maggiescentres.org/our-centres/maggies-barts/>

Support websites and groups.
Cancer Research UK
www.cancerhelp.org.uk 020 7061 8355

Useful Information

www.cancerresearchuk.org/about-cancer/breast-cancer/treatment/radiotherapy/radiotherapy-treatment

DIBH resource:

www.respire.org.uk/resources

Scroll down to the bottom of the page and click on the 3 links for 'preparation for using the breath hold technique'. The video will detail what to expect during the breath hold process.

Patient Advice and Liaison Service.
Please contact us if you need general information or advice about Trust services:
www.bartshealth.nhs.uk/pals

Large print and other languages.
For this leaflet in large print, please speak to your clinical team.

For help interpreting this leaflet in other languages, please ring 020 8223 8934.

Tell us what you think;
Tweet us **@NHSBartsHealth**
Talk to us via **www.facebook.com/bartshealth**
Leave feedback on NHS Choices www.nhs.uk

Reference: BH/PIN/856

Publication date: July 2023

All our patient information leaflets are reviewed every three years.

©Barts Health NHS Trust
Switchboard: 020 3416 5000
www.bartshealth.nhs.uk



Barts Health
NHS Trust

Deep Inspiration Breath Hold Technique for Radiotherapy (DIBH)

Important: Please tell us if you have a pacemaker as we will need to monitor your heart during your treatment.

Please let us know if you are pregnant or think you might be pregnant.

It is important to remember that you need to use contraception whilst receiving treatment for cancer in order to prevent pregnancy – please see our leaflet 'Avoiding pregnancy during radiotherapy and chemotherapy'



Who is this leaflet for?

This leaflet is for patients having radiotherapy to the breast or chest wall using Deep Inspiration Breath Hold technique (DIBH).

What is the Deep Inspiration Breath Hold technique?

Deep Inspiration Breath Hold is an effective method of limiting radiation exposure to the heart.

This treatment technique requires you to hold your breath in intervals (for around 20 seconds) during your planning CT scan and radiotherapy treatment. By holding your breath, and inflating your lungs, the heart is pushed away from the treatment area. It also stops any movement caused by breathing.

This treatment technique will be discussed with you by your oncologist. The oncologist will take into account your ability to comfortably hold your breath for a short period of time.

What will you need to do?

At home, practice holding your breath for 20 seconds. Repeat this several times in a row. Daily practice will help improve your ability and confidence in achieving breath hold comfortably.

At the CT scan, the radiographers will explain and demonstrate what a 'deep inspiration' breath means. The radiographers will practice this with you to make sure you are comfortable before going ahead with the scan.

Tips to performing DIBH.

- Relax.
- Follow the visual and audio prompts.
- Breathe in through your nose (if you can).
- Lie still on the bed and focus on expanding your lungs.
- Don't arch your back when you breathe in.
- Don't raise your shoulders when you breathe in.

What to expect at the planning CT scan appointment.

You will have a CT scan to plan your treatment. This will help the oncologist plan the size and shape of the x-ray beams needed to accurately treat you.

The radiographers will position you on the couch. A small plastic box will be placed on your chest and a camera will monitor the motion of this box. This motion represents your breathing.

A mirror will be placed above you. The mirror will display a reflection of your breathing pattern. Ask the radiographers to adjust the mirror if you cannot see clearly.

The display will help you to see if you are taking enough air into your lungs. Your breathing is represented by a white line and the target area is a green box. The radiographers will ask you to breathe in and hold the white line into the green target box for approximately 20 seconds.

It is important to take a consistent deep breath. If you are finding it difficult to breathe in and hold, please inform the CT radiographers. The settings are personalized to you and can be adjusted.

If you are unable to achieve and maintain 'breathe hold' successfully, please do not worry. With advanced planning techniques we are also able to limit the dose your heart may receive without asking you to hold your breath.

What to expect during the treatment appointments.

The radiographers will position you on the couch in exactly the same way as you were for the CT scan. A small plastic box will be placed on your chest and a camera will monitor the motion of this box. The mirror will then be positioned.

The radiographers will practice the breathing with you to make sure you are comfortable and able to consistently breathe into the blue target box. You will be given verbal instructions through an intercom system. Ask the radiographers to adjust the volume if you cannot hear.

When you are in the correct position the radiographers will leave the room. Lie still and breathe normally. You will be monitored on CCTV.

The radiographers will speak to you through the intercom system to let you know when to breathe in. Don't rush – when you feel ready, take a deep breath in and hold it.

Once you are in the breath hold position, the treatment machine will deliver the radiation treatment. When this section of the treatment is completed, the treatment machine will switch off and the radiographer will tell you to breathe normally. This process will then be repeated until your treatment is completed.