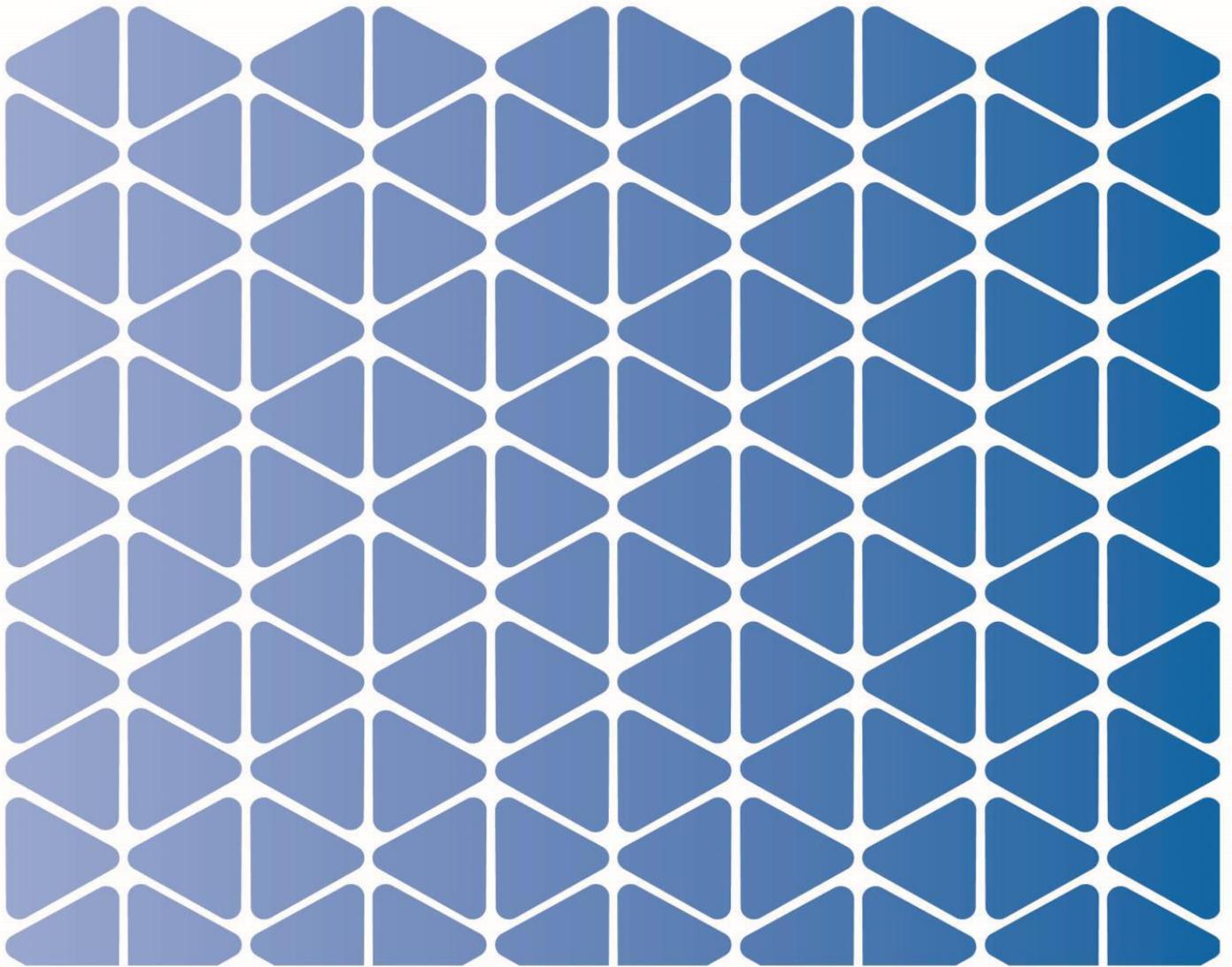




PATIENT INFORMATION

**BREATH HOLD LEAFLET**





**Worcestershire Oncology Centre**  
Improving cancer services in Worcestershire

**What is deep inspiration breath hold (DIBH)?**

Deep inspiration breath hold (DIBH) is a radiotherapy technique whereby you hold your breath during treatment to help reduce the radiation dose received by heart.

**Advantages of DIBH:**

By holding your breath your chest stays still and your lungs expand, pushing the heart further away from the chest wall and away from the radiotherapy treatment area.

In many people this is helpful in reducing the dose to the heart and the lung whilst ensuring that the breast/chest wall area receives the full dose of treatment as prescribed by your doctor

**Are there any alternatives/what if I cannot hold my breath?**

Do not worry if you are unable to hold your breath. The alternative to DIBH is to have your radiotherapy whilst breathing away as normal. The planning team and your consultant will use a variety of radiotherapy planning techniques to avoid the heart.

**Introduction**

You will need to be able to take a deep breath in as described below to undergo this technique. It is important to take in as big a breath as you can manage and hold for a prolonged period of time when asked to do so.

Breath hold training and practice has been shown to make a big difference to patient's confidence and ability in taking and holding bigger breaths.

**Breath Hold Training Website**

[www.respire.org.uk](http://www.respire.org.uk) The RESPIRE website has short videos to help you prepare for your breath hold treatment. As well as step by step instructions for a good breath hold technique there are relaxation videos and information videos of what you can expect when coming for CT planning. Please take the time to visit this site as it will help during your Radiotherapy planning and treatment.

If you do not have access to the internet and a friend or relative cannot help you please do not worry. Below there are instructions to help you practice your breath hold at home.

## Breath hold practice:

The goal at the end of this technique will be to comfortably manage to hold a deep breath for 20 seconds



### At first:

- Find a comfortable chair to sit in
- Practise taking in slow, controlled, deep breaths, breathing in through your nose rather than your mouth will help to stay controlled/steady
- Be mindful of your chest expanding as you do so with each breath
- Once confident you can start to practise holding your breath
- Through your nose, Breathe in then out. Breathe in again and out, then on the 3<sup>rd</sup> breath inhale and hold
- Initially hold your breath for just 5 seconds and return to normal breathing
- Follow the steps again increasing your hold times to **10 seconds**, then **15 seconds** and building eventually **20 seconds**.
- As above always ensure you breathe in and out twice prior to each attempt to hold

Once you are comfortable and confident holding your breath for 20 seconds you need to practise this lying down.

For your CT scan and treatment you will be lying down on a board with your arms supported above your head.

### As before:

- Try lying on your bed or the floor with a pillow under your head
- Carefully raise your arms so they are resting above your head (supported by the pillow)
- Practise taking in slow, controlled, deep breaths through your nose
- Be mindful of your chest expanding as you do so with each breath
- Be careful not to arch your back or lift your chest off the bed/floor when breathing in. You are focusing on filling your lungs with air and really expanding your chest
- Once confident you can start to practise holding your breath
- Breathe in then out. Breathe in again then out, then on the 3<sup>rd</sup> breath inhale and hold
- Initially hold for just 5 seconds and return to normal breathing
- Follow the steps again increasing your hold times to **10 seconds**, then **15 seconds** and building eventually **20 seconds**.
- As above always ensure you breathe in and out twice prior to each attempt to hold. This will help relax your body and improve how deep a breath you can take.

### **What to expect at your planning CT scan appointment:**

The CT radiographers will lie you on the scanner bed in the preferred position and will help you practise your breathing as required before going ahead with the scan. The goal will be to have both arms raised and supported as below:

The CT scan procedure takes about 15-20 minutes and we will ask you to hold your breath a few times for approximately 20 seconds.

Once you have managed to hold for 20 seconds, we will place pen marks and wire stickers on your skin whilst recording lots of different measurements. During these steps, you may breathe away as normal.

The CT radiographers will then leave the room to commence the scan. Using a microphone they will advise you when you need to hold your breath during the scan and when you can breathe again as normal.

The time it takes to scan your chest area will be under 20 seconds and the radiographers will count each second out loud by the microphone as a guide to time. Once the scan has finished you will be prompted to breathe away as normal.

### **What to expect at your treatment appointments:**

You will be positioned for your treatment as you were during your CT planning scan. The radiographers will coach you again with breath holding ensuring you are able and comfortable to hold your breath for 20 seconds.

Pen marks will be placed on your skin to allow the radiographers to monitor that you are holding your breath as you were during your CT planning scan.

Once all the checks have been made the radiographers will leave the room and watch/speak to you through an intercom.

When they are ready to switch the treatment on they will ask you to take a breath in and hold.

You will be watched at all times by the radiographers and if at any point you feel you must breathe out they will pause the treatment machine and restart when you are ready.

Once the treatment beam has finished the radiographer will instruct you to breathe away as normal.

This process will continue until all the treatment beams have been delivered.

Please be reassured you will be guided through this process at all times and the radiographers will watch you carefully throughout

## **What are the risk?**

There are no risks associated with DIBH

## **Acute Oncology Services**

Monday-Friday 9.00am-5.00pm 01905 760158

The following internet websites contain information that you may find useful.

- [www.worcsacute.nhs.uk](http://www.worcsacute.nhs.uk)  
Worcestershire Acute Hospitals NHS Trust
- [www.patient.co.uk](http://www.patient.co.uk)  
Information fact sheets on health and disease
- [www.macmillan.org.uk](http://www.macmillan.org.uk)  
Macmillan Cancer Support: 0808 808 0000
- [www.mariecurie.org.uk](http://www.mariecurie.org.uk)  
Marie Curie Cancer Care: 0800 716 146
- [www.cancerresearchuk.org](http://www.cancerresearchuk.org)  
Cancer Research UK: 0808 800 4040

**If your symptoms or condition worsens, or if you are concerned about anything, please call your GP, 111, or 999.**

### **Patient Experience**

We know that being admitted to hospital can be a difficult and unsettling time for you and your loved ones. If you have any questions or concerns, please do speak with a member of staff on the ward or in the relevant department who will do their best to answer your questions and reassure you.

### **Feedback**

Feedback is really important and useful to us – it can tell us where we are working well and where improvements can be made. There are lots of ways you can share your experience with us including completing our Friends and Family Test – cards are available and can be posted on all wards, departments and clinics at our hospitals. We value your comments and feedback and thank you for taking the time to share this with us.

### **Patient Advice and Liaison Service (PALS)**

If you have any concerns or questions about your care, we advise you to talk with the nurse in charge or the department manager in the first instance as they are best placed to answer any questions or resolve concerns quickly. If the relevant member of staff is unable to help resolve your concern, you can contact the PALS Team. We offer informal help, advice or support about any aspect of hospital services & experiences.

Our PALS team will liaise with the various departments in our hospitals on your behalf, if you feel unable to do so, to resolve your problems and where appropriate refer to outside help.

If you are still unhappy you can contact the Complaints Department, who can investigate your concerns. You can make a complaint orally, electronically or in writing and we can advise and guide you through the complaints procedure.

### **How to contact PALS:**

**Telephone Patient Services: 0300 123 1732 or via email at: [wah-tr.PET@nhs.net](mailto:wah-tr.PET@nhs.net)**

### **Opening times:**

The PALS telephone lines are open Monday to Thursday from 8.30am to 4.30pm and Friday: 8.30am to 4.00pm. Please be aware that a voicemail service is in use at busy times, but messages will be returned as quickly as possible.

If you are unable to understand this leaflet, please communicate with a member of staff.