Breast Radiotherapy with Deep Inspiration Breath Hold (DIBH)

Information for patients with left sided breast cancer

How to find us
GenesisCare Radiation Oncology Centre at St Vincent’s is located at 41 Victoria Parade, Fitzroy VIC 3065.
Follow the green dots on the map below.

Building C Entrance
Enter via the stairs in front of Building C, 41 Victoria Parade. Just past the main foyer area, take either the lifts (on your left) or the stairs (on your right) down to the basement level. Follow the ‘Radiation Oncology Cb2’ signage (a 10 metre walk).

Building B Entrance (wheelchair / disabled access)
Enter via the ramp or stairs in front of Building B, 55 Victoria Parade. Once in the foyer of Building B, turn left and walk down the corridor, towards building C. At the end of the corridor, turn right and take either the lifts (on your left) or the stairs (on your right) down to the basement level. Follow the ‘Radiation Oncology Cb2’ signage (a 10 metre walk).

Car parking
Free car parking is available for patients receiving treatment at our radiation oncology centre.
Our patient services team will talk to you about car parking options prior to your first appointment at the centre.

Public transport
Public transport options include the tram, train or bus which will deliver you near the entrance of Buildings B and C on Victoria Parade.
To view up-to-date public transport information visit Public Transport Victoria at www.ptv.vic.gov.au or visit the St Vincent’s Hospital website at www.svhm.org.au

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St Vincent’s Hospital Melbourne
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How to contact us

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What happens if I can't hold my breath or need to cough?
Throughout the treatment you will be given a patient control button to hold onto. This button gives you full control, and allows you to stop the procedure if required.
This button also lets the staff know you are ready for breath hold and enables the system to assist you in holding your breath. At any time during breath hold if you need to stop and take a breath or cough, all you need to do is let go of the button and the machine will ‘pause’ until you are ready to continue again. If you are in distress and need the radiation therapists to enter the room, press the button twice.

Patients sometimes feel they may be unable to use the DIBH technique. If you feel you will not be able to hold your breath for a minimum of 15 seconds we can arrange a practice session for you.
Often patients who at first cannot achieve this, find that after a little practice they are more successful.

If after practice you are unable to hold your breath, your radiation oncologist may decide to use a planning scan without DIBH. There are other methods that are used to minimise the risk of radiation exposure to the heart. Your doctor will discuss these with you.

If you have any further questions please contact us.
Deep Inspiration Breath Hold (DIBH) is a technique used for patients with left sided breast cancer undergoing radiation treatment. As the heart lies on the left hand side under the left breast, there is a possibility it will receive some radiation dose. This dose depends on a number of factors including shape of the lungs, position of the heart and the location of the primary tumour. DIBH is one way to minimise the radiation dose to the heart.

How DIBH works / What is it?
DIBH is a radiotherapy technique that requires you to take a deep breath and hold it when your treatment is being delivered. When you hold your breath, your chest is expanded and your heart moves down and away from the radiation field. It is important that you are able to hold your breath several times during each treatment. If DIBH is an appropriate treatment for you, the next step is to attend a ‘planning’ appointment.

Preparation for the CT Planning Appointment
It is very important to practice holding your breath prior to attending your planning appointment. This will assist you to become comfortable with the technique.

To practice, lie on your back with your arms above your head. Take a deep breath in and hold it for 15 seconds (if you are able to do so comfortably). For best results please repeat this 3 times in a row. The size of the breath should be one that you can easily hold and reproduce.

Repeat this exercise several times a day prior to your planning appointment. This will increase your confidence in holding your breath and improve your lung capacity.

What happens during the CT Planning Scan?
The radiation therapists will spend the first half of the appointment coaching you on how to use the equipment, allowing you to get comfortable with a snorkel-like mouthpiece, nose peg and patient control button (see Image 3).

You will lie in the treatment position with your arms up above your head. The mouth piece is connected to a computer which allows the radiation therapists to see your breathing pattern.

Once your breathing pattern is determined, you will be asked to take 3 normal breaths followed by a deep breath in and hold your breath for a minimum of 15 seconds.

When you are instructed to take a deep breath in and hold, a special balloon valve inside the breathing apparatus will close and make a click noise. The system will then help you hold your breath by preventing airflow.

You will be able to practice the breath holds before the CT scan is performed and you will get some time to rest in between each breath hold.

If you are suitable for DIBH after your coaching session, the radiation therapists will take your planning scans. Two CT planning scans will be performed, the first will be taken in DIBH, followed by the normal breathing scan.

You should allow approximately 60 minutes for your planning session.

Treatment
For your treatment, the radiation therapists will position you in exactly the same way as the CT scan and then set up the breath hold machine for your treatment (see Image 4 overleaf).

Once this is completed the radiation therapists will leave the room and communicate with you via the intercom.

When the radiation therapists are ready to switch the radiation on they will ask you to hold your breath. You will hear the treatment machine switch on and the therapists will count down (out loud) to help you through the process. This step is repeated several times during each treatment session.

When the radiation beam is finished they will tell you to breathe normally. A computer attached to the breath hold machine and snorkel apparatus will monitor your breathing and position.