

## TIPS ON HOW TO HOLD YOUR BREATH.

When holding your breath, keep the following tips in mind:

- **This breath should be deeper than a normal inhale, but not painful.**
- **Breathe in through your nose or pursed lips until your lungs feel full.**
- **Relax and do not arch your back.**
- **If we see a “slow leak”, be mindful of your ribs.** Sometimes we see breathing traces slowly drift downwards out of range – the “slow leak.” The ribs can relax throughout the breath hold even without releasing any air.

## WHAT IF I FALL OUT OF MY BREATH HOLD RANGE DURING MY CT SCAN?

We can easily repeat the scan to ensure that you are in range throughout the entire scan.

## WHAT IF I FALL OUT OF MY BREATH HOLD RANGE DURING MY TREATMENTS?

The treatment machine only delivers radiation when you are within range, which means that radiation will never go where it is not supposed to. If you fall out of range, the machine will stop and pick up right where you left off the next time you are in range.

### MISSION

A world free of cancer

### VISION

To lead in transformative cancer care, research and education through courage, commitment and compassion

# DEEP INSPIRATION BREATH HOLD



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## WHAT IS DEEP INSPIRATION BREATH HOLD (DIBH)?

DIBH is a technique that we use to minimize radiation exposure to your heart. During the planning session, we will ask you to take in a deep breath and hold it while we perform a CT scan.

## HOW DOES DIBH WORK?

For some patients, when they take a deep breath, the ribs lift away from the heart while the diaphragm simultaneously pulls the heart down. This may increase the distance between the breast and the heart to decrease radiation exposure to the heart.

## IS DIBH RIGHT FOR ME?

Each patient is different, which is why we take two scans during the planning session – one with normal breathing, one with DIBH. Your care team will compare these scans side by side to evaluate the benefit for you. If you benefit from the technique, we will use DIBH for your treatments.

## I DIDN'T GET CHOSEN FOR DIBH. DOES THAT MEAN I WILL GET A WORSE TREATMENT?

If you are not a candidate for DIBH, it does

not mean your heart will be exposed to more radiation. During the planning process, our team compares radiation plans with and without DIBH to determine if there is measurable proof that this technique will better spare the heart from radiation exposure. This depends on each individual's anatomy, which includes body shape, location of the heart, and breathing pattern.

If it is determined that DIBH does not improve the ability to spare the heart, it means that a normal breathing treatment is just as good at sparing the heart with the advantage of it being an easier and quicker treatment for you.

## THE DIBH PROCESS.

We will place a block on your stomach.

We will give you a verbal cue, **“When you’re ready, take in a breath and hold it”** to start.

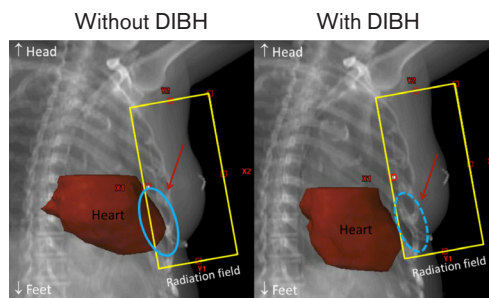
You can expect the breath hold to be about 30 seconds long. We will tell you when the 30 seconds are completed.

## PREPARATION FOR DIBH.

We will practice the breath hold several times before we acquire your scan. While you are practicing your breath holds we will be creating a breath hold range that is optimized for you and your treatment.

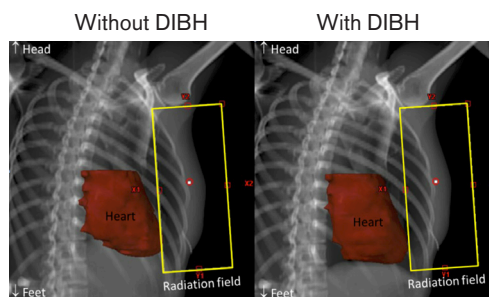
You will be coached into this range. You may hear the following cues:

- **“Breathe a little deeper”** – This means you are below range and must breathe in a little more air.
- **“Let a little out”** – This means you are above range and must let some air out.



### A patient who received DIBH

More of the heart is within the radiation field with the normal breathing technique



### A patient who did not receive DIBH

The heart is the same distance away from the radiation field with either technique