

Deep Breath Hold Technique

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What is the Deep Breath Hold technique?

You and your Radiation Oncologist (cancer doctor) have decided that radiation therapy is the best treatment for you. Your radiation therapy treatments will work best using the 'Deep Breath Hold' technique.

The Deep Breath Hold technique means you need to hold your breath during your CT scan and treatment. You must be able to take a deep breath and hold it for at least 20 seconds. For some people, Deep Breath Hold may be done after letting all your breath out (exhale).

A special camera and equipment will monitor your breathing with the help of a small plastic box taped to your abdomen (stomach area). The equipment will only allow the treatment machine to give radiation while you are holding your breath.

Why is the Deep Breath Hold technique useful?

Holding your breath stops your chest from moving and helps to keep you still. This helps to focus the radiation beams. Many organs can move when you breathe, like the liver, heart, lungs, and pancreas. When you hold your breath, these organs do not move. This lowers the amount of radiation they get.

How do I do the Deep Breath Hold technique?

You will need to take a deep breath in and hold it for at least 20 seconds. During the CT scan and the treatment, you will need to hold your breath for 20 seconds several times.

When asked by the radiation therapists to hold your breath, it is important to take and hold as big a breath as you comfortably can. The radiation therapists will practice this with you at the CT scanner before your scan.

It is a good idea to practice holding your breath a few times a day at home for 3 or 4 days before coming for your CT scan.

**What are your questions? Please ask.
We are here to help you.**

To practice, lie on your back. When you are relaxed, take in as deep a breath as you can, and hold it in. Use a watch or timer to keep track of how long you can hold your breath. You may only be able to hold your breath in for a short time, but don't give up. Keep trying! You must be able to hold your breath for at least 20 seconds. Keep practicing holding your breath for as long as you can and it will get easier.

Practicing can help build your confidence in holding your breath. Practicing will also help your lungs take in bigger breaths.

Video goggles

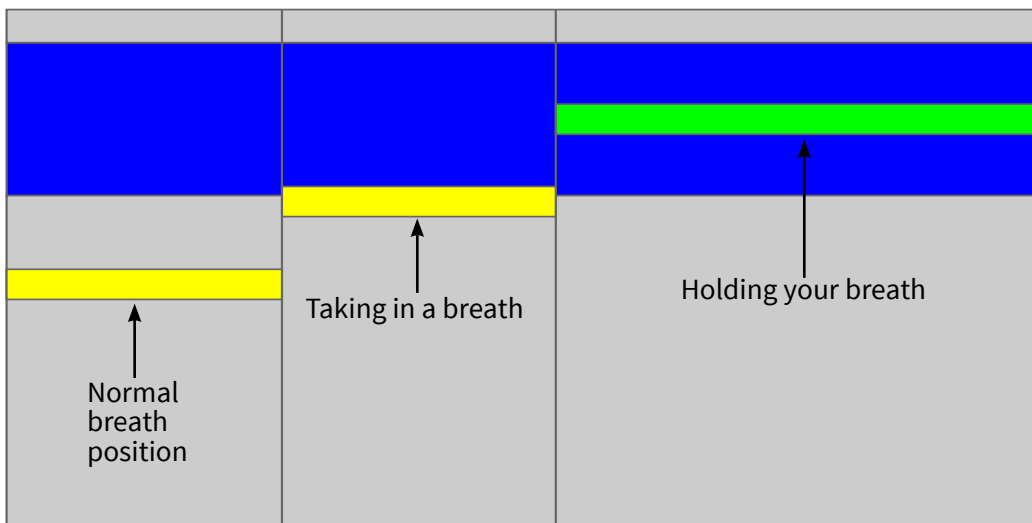
To help you see how big a breath you need to hold, the radiation therapists will give you video goggles that look like sunglasses. You will need to wear the goggles during your CT scan and at each treatment.

These goggles show you a video display of your breathing. You will be able to see if you are taking enough air into or out of your lungs to start your treatment.

The pictures below show what you will see while wearing the goggles. A yellow bar in the video display shows your breathing. The bar will move up and down as you breathe in and out.

When you hold in your deep breath, the yellow bar will move into the blue area and turn green. When the bar is green, the machine will turn on. When you let go of your breath hold, the bar will drop back out of the blue area and turn yellow again. The machine will turn off when the bar turns yellow. This is how the treatment machine stops and starts the radiation.

Video Goggle View



Treatment

The radiation therapists will help you onto the treatment table. They will use the marks given during the planning CT scan to get you in the right position for your treatment. The radiation therapists will give you the video goggles to wear and will practice your deep inspiration breath hold with you several times.

The radiation therapists are there to help you relax and feel as comfortable as possible. You can practice your deep breath hold in the treatment position and tell the radiation therapists when you are comfortable and ready to start your treatment.

When you are ready, the radiation therapists will leave the room. They will use a camera and intercom system to monitor you. They will ask you to take several normal breaths and then take a deep breath in and hold it.

Once you have taken a big enough breath and you can see that the yellow bar on the goggles has turned green (see picture on the previous page), the treatment machine will turn on.

As soon as you let go of your breath, the treatment machine will turn off again. You will need to hold your breath a few times to complete each part of the treatment, but the treatment will only start and continue when you are ready and are holding your breath.

Remember that the machine will only turn on when your breath is held exactly where it is supposed to be. If your breath has not raised the bar high enough to turn green, the treatment machine will not turn on.

The radiation therapists will be monitoring you the whole time and will help guide you through your treatment.

Looking for more health information?

Find this brochure and all our patient resources here: <http://library.nshealth.ca/PatientGuides>
Contact your local public library for books, videos, magazines, and other resources.
For more information, go to <http://library.novascotia.ca>

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