Breathe Well

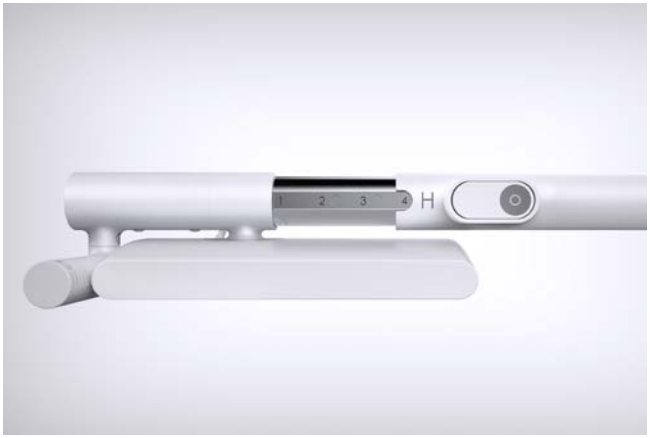
Personalised breath holds for improved radiation therapy

Enabling accurate and efficient deep inspiration breath holds for cancer radiation therapy

Reduces heart dose

Breathe Well enables accurate and efficient deep inspiration breath holds in an innovative and streamline workflow, greatly reducing radiation damage to the patient's heart and lungs.[1,2]

Through real-time patient-personalised method of visual feedback, Breathe Well guides patients to perform stable and reproducible breath holds,[2-5] reducing the risk of serious cardiac events, such as coronary artery disease, by almost a half.[1,6]



Faster treatments

Breathe Well is an ergonomic medical device designed to streamline workflow and maximise patient compliance to facilitate the fastest possible treatment times to improve the patient experience and patient throughput.

Breathe Well employs a wireless setup and houses all major components on a single unit to enable a speedy setup time requiring only seconds. Breathe Well directly monitors the patient's chest surface without markers or surrogates.

Breathe Well's innovative design supports its compatibility on a wide range of vendor platforms, it can be used on any radiotherapy couch, CT sim, or linac; you simply clip it onto the couch, turn it on, and it's ready to go.

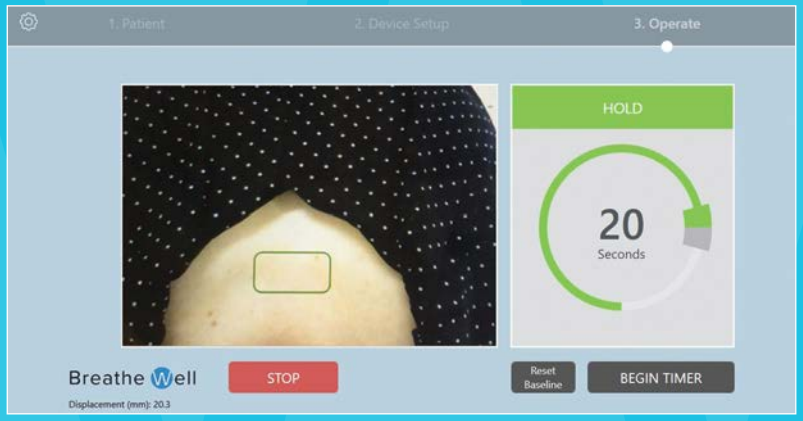
Patient friendly

Due to its wireless and markerless setup, Breathe Well is designed to be as comfortable to use for the patient as possible.

Breathe Well's visual interface is highly intuitive to minimise repeat attempts of breath holds and reduce patient stress. The patient is shown their chest motion in real-time with an indicated breath hold area that is custom calculated for them and saved for each patient to ensure reproducibility for each treatment session.

Breathe Well also keeps you informed about patient performance during treatment, displaying the patient interface, chest motion, and notifications for when the patient deviates outside the breath hold area.

Patient view



Operator's interface

References

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3. Damkjær, *et al.* "Reduced lung dose and improved inspiration level reproducibility in visually guided DIBH compared to audio coached EIG radiotherapy for breast cancer patients." Acta Oncologica 52.7 (2013): 1458-1463.
4. Pollock, *et al.* "Breathing guidance in radiation oncology and radiology: a systematic review of patient and healthy volunteer studies." Medical Physics 42.9 (2015): 5490-5509.
5. Lee, *et al.* "Audiovisual biofeedback guided breath-hold improves lung tumor position reproducibility and volume consistency." Advances in Radiation Oncology (2017).
6. Darby, *et al.* "Risk of ischemic heart disease in women after radiotherapy for breast cancer." New England Journal of Medicine 368.11 (2013): 987-998.

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