CNERGY
innovative radiotherapy

CNERGY **Breath Hold**

Deep-Inspiration Breath Hold monitoring solution

03 Patient Identification & Monitoring

CNERGY Breath Hold

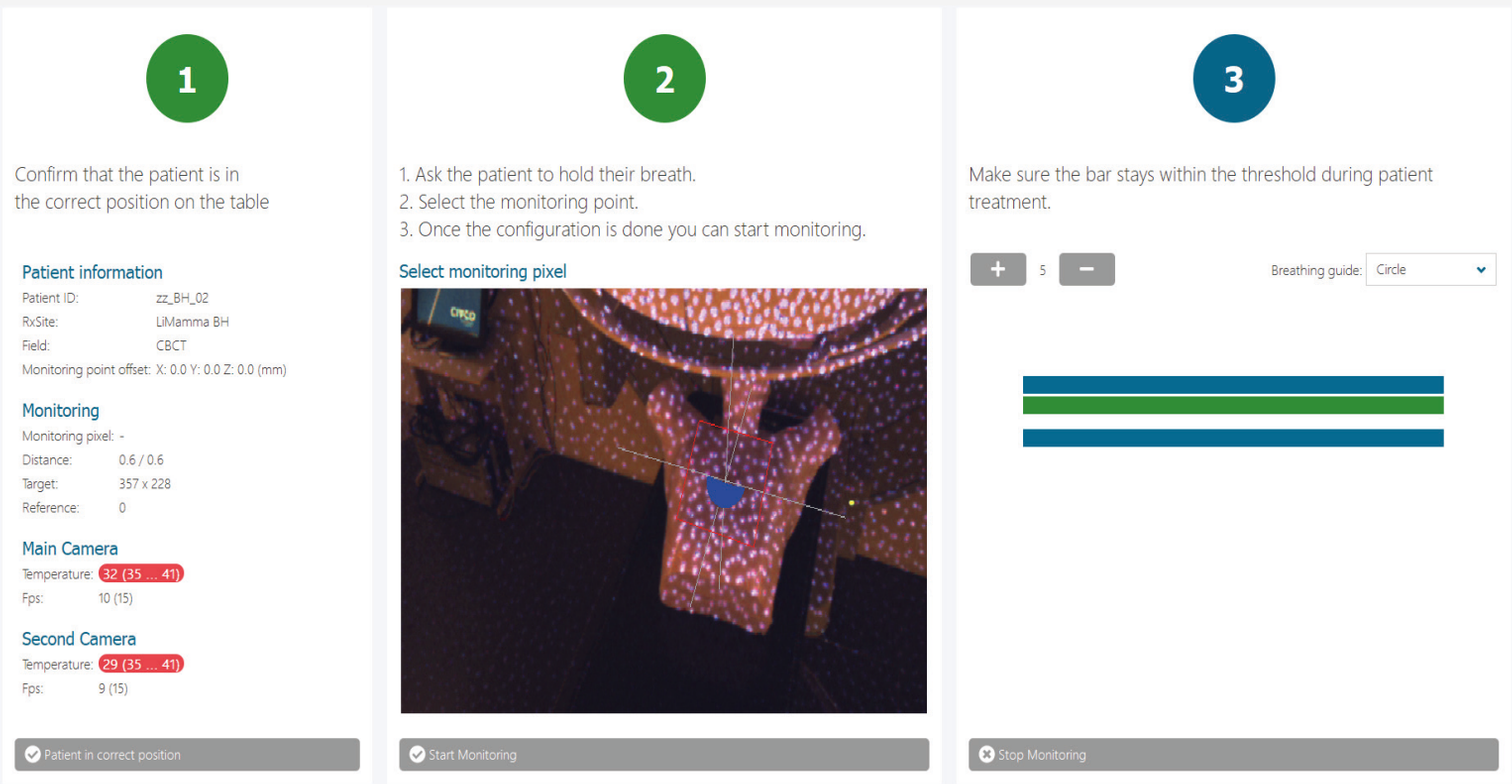
One of the challenges with breast irradiation treatments is to protect the heart and lungs as much as possible. CNERGY Breath Hold is consisting of a full HD in-depth camera, monitors the patient's respiratory motion in order to check that the patient is holding their breath correctly. Deep inspiration breath hold (DIBH) is a proven technique resulting in a maximum dose in the treatment area, while the surrounding healthy tissue is spared.[1]

Real-time monitoring

CNERGY Breath Hold consists of a single full HD real time depth camera. The camera is installed at the ceiling of the treatment room. With sub-millimeter accuracy, the distance is measured during deep inspiration breath hold to the Breath Hold monitoring point (isocenter). If the distance is within personalized threshold values, the interlock is released and the treatment can be started. Breath Hold monitoring can be used during the entire fraction with imaging and treatment beams. Visual feedback using graphs is used to monitor the patient position.

Seamless integration

Thanks to seamless integration with CNERGY Check the monitoring point is corrected in case of any correction. Breath Hold monitoring starts automatically without user intervention. Data is stored in a central database and can be easily reviewed for every beam. With CNERGY Check and CNERGY Image & Precision, the IGRT results can be combined with Breath Hold match results to use in online and offline protocols.



KEY FEATURES:

- Full HD in-depth camera, with sub-millimeter accuracy the distance is measured during DIBH to the breath hold monitoring point
- Breath Hold monitoring can be used during the entire fraction with imaging and treatment beams
- Visual feedback using graphs is used to monitor the patient position

BENEFITS:

- DIBH results in a maximum dose in the treatment area, while the surrounding tissue is spared[1]
- Monitoring starts automatically without user intervention
- Monitoring point is automatically corrected for patient setup corrections by using CNERGY Check
- Within CNERGY data can be used in clinically proven DIBH (decision) protocol and combined with IGRT match results in online and offline protocols

1 Nissen HD, Appelt AL. Improved heart, lung and target dose with deep inspiration breath hold in a large linical series of breast cancer patients. Radiother Oncol 2013;106:28–32. doi:10.1016/j.radonc.2012.10.016.

PM-THV-19-03 brochure Breath Hold 10-04-2024 rev.3

CNERGY Breath Hold is part of the CNERGY Solutions.

Klepelhoek 11, 3833 GZ Leusden
The Netherlands
+ 31 33 494 39 64
info@cablon.nl

cablon.nl

cablon medical