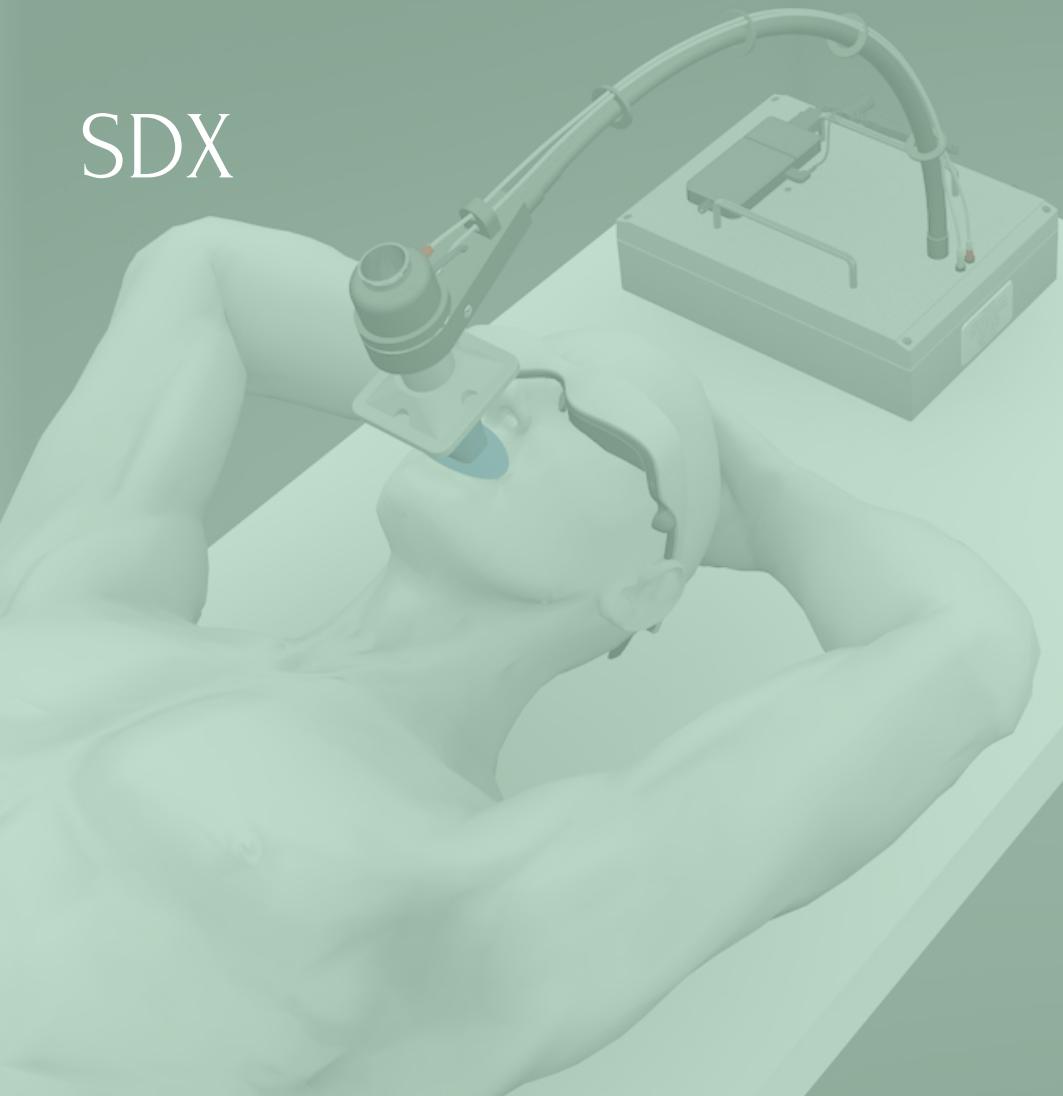


SDX



OIS
Oncology Imaging Systems

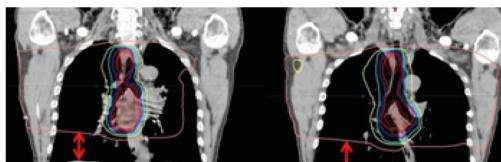
SDX™ RESPIRATORY GATING SYSTEM

SDX is a voluntary breath hold system for managing thoracic and abdominal tumour motion during imaging and radiation therapy.

The SDX™ System's unique ability to pair a patient's inspiration rate and lung volume measurement with clear visual biofeedback makes it possible to maximise the stability of internal organs and the tumour treatment zone. This allows for increased dose to the tumour with decreased toxicity to vital organs.

- Reduces tumor motion during imaging and treatment
- Enhances tumor imaging and visualization
- Reduces treatment margins
- May allow increased dose with decreased toxicity to vital organs
- Can reposition vital organs out of the high dose region

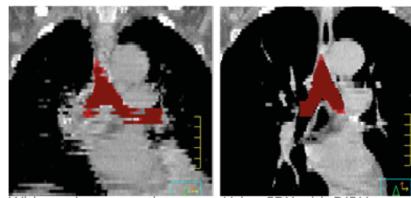
LUNG PATIENT



With respiratory motion

Using SDX with DIBH expands healthy lung tissue out of the high dose region

IMAGE IMPROVEMENT



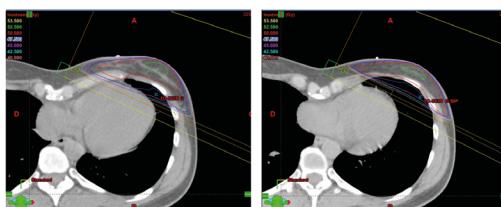
With respiratory motion

Using SDX with DIBH

SDX with Deep Inspiration Breath Hold allows dose escalation while reducing both lung and cardiac toxicity

SDX with DIBH manages organ movement within the thoracic cavity allowing enhanced imaging and visualization.

LEFT BREAST PATIENT



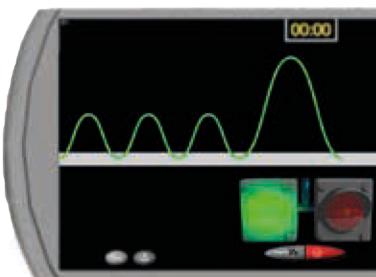
With respiratory motion

Using SDX with DIBH repositions the heart out of the high dose region

SDX with DIBH is a highly effective cardiac sparing technique to treat left-sided breast cancer. DIBH allows for the displacement of the heart during the isocenter planning process, thus allowing greater reduction in dose to the heart. With the use of this technique tangent radiation beams can effectively treat tumors while reducing dose to the heart. The liver can be spared to a larger extent with DIBH for right sided breast cancer.

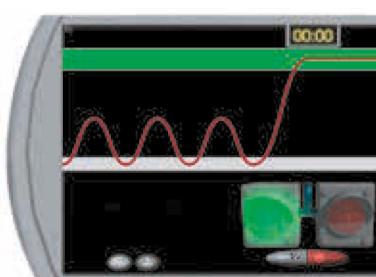
PATIENT TRAINING

The initial patient training session includes a detailed explanation of the procedure and verbal coaching on DIBH. The patient is then introduced to the SDX System and breathes freely through the spirometer until instructed to take a full inspiration. The SDX calculates a target inspiration zone, which is a percentage of the patient's maximum inspiration capacity. This ensures the patient can comfortably maintain repeated breath holds of 20-25 seconds. The result is a repeatable breath hold, taken with the same inspiration volume every time.



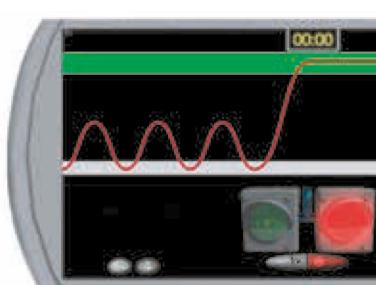
CT SCAN & TREATMENT PLANNING

After training, the patient proceeds to the CT scanner for treatment planning imaging. With the use of the video goggles, the patient is able to visualize the target inspiration zone. CT images are taken while the patient performs the breath hold. SDX with DIBH decreases the movement of organs within the thoracic cavity, allowing for enhanced tumour imaging and visualization. The acquired CT images are used to develop the treatment plan.



TREATMENT

The process for treatment is the same as CT Scanning. With the SDX System, the patient remains in control by voluntarily repeating breath holds during the course of treatment. The clinician monitors the breathing pattern to determine the optimal moment for delivering the treatment.



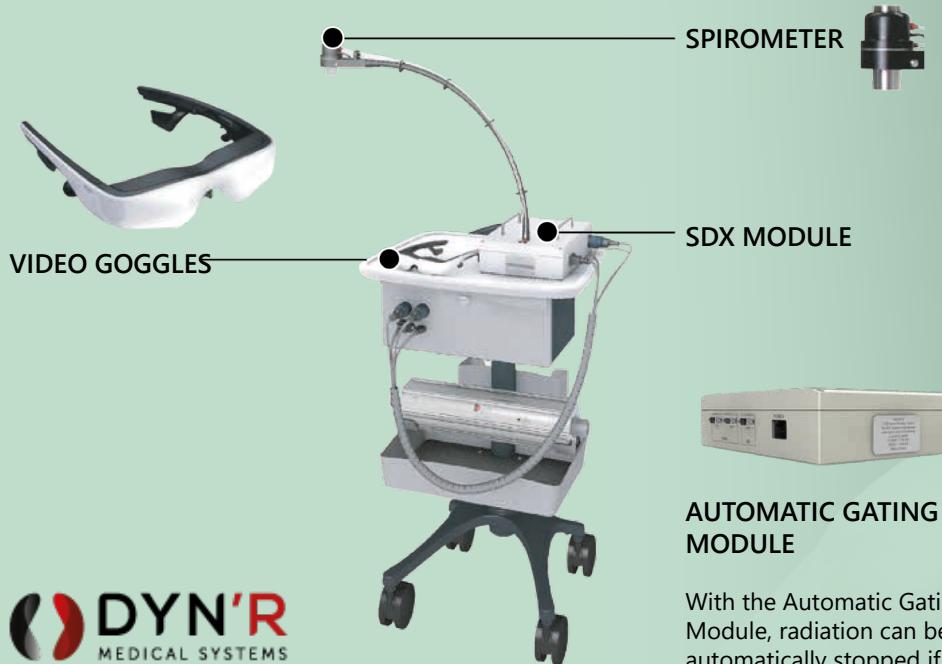
CONSUMABLES



Bacterial filter
Mouthpiece
Nose Clip

SDX TROLLEY PACKAGE

The trolley allows the SDX to be easily integrated into current radiotherapy simulation and treatment workflows. It organises and retains cables to allow ready accessibility to the SDX system and enhances transportability between multiple simulation and treatment room configurations.



SDX MODULE



AUTOMATIC GATING MODULE

With the Automatic Gating Module, radiation can be automatically stopped if the patient comes out of their breath hold.



SDX is manufactured by Dyn'R Medical Systems and distributed by OIS in the UK & Ireland.



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