

Conventional Simulation

Ensuring accuracy in conventional simulation

Conventional simulation is a way for the radiation oncology team to ensure and verify that the radiation beams are properly targeting the tumor and tissue.

An X-ray simulator (a 2D computer treatment planning system) is used for calculating the dose distribution for the radiotherapy treatment beams.

Conventional simulation differs greatly from CT simulation in that the tumor is localized in only two dimensions. The physician determines the field borders, location, and defines the target. The physician may also use fluoroscopy to view the treatment area and determine the isocenter.

Skin markers play an important role in the reproducibility of treatment, ensuring accurate targeting and proper dose applied to tissue.

However, in conventional simulation there is the risk of burnout. This occurs when the beam over-penetrates an object and produces an over-exposed area on the image.

When this happens, the patient must either be re-simulated, or the dosimetrist must contour the body shape so that an accurate dose distribution can be calculated for treatment. Images taken from conventional simulation can be used with those taken from CT or MRI to gain more complete contour data.

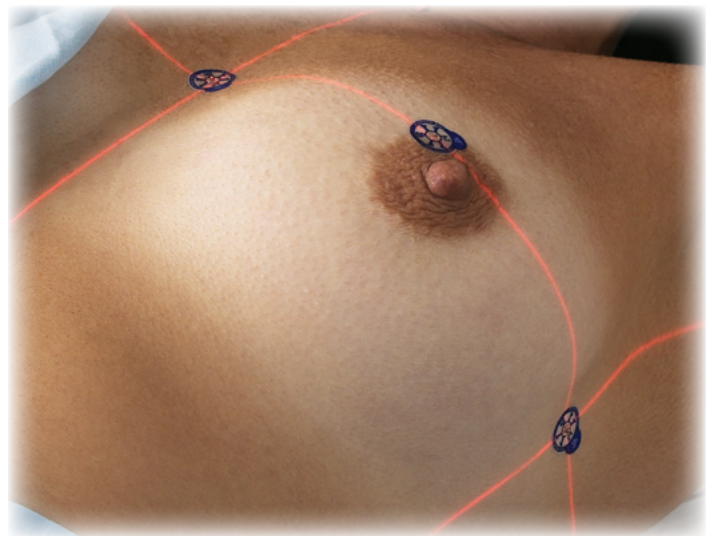
Contouring can also be done manually, however, this method is prone to inaccuracy, and certain details may be lost in translation on the contouring paper. Contour devices, such as a pantograph, can be costly and require storage space.

Burnout resistant markers offer broad range of use

Skin markers act as a guide for radiation oncology teams who want to be sure the right tissue is being irradiated or avoided. They also help reduce the concern a dosimetrist may have with manually contouring the image due to burnout.



Beekley Medical®'s skin markers for conventional simulation image brightly and serve as guides for determining isocenters and 3-point set-ups. These burnout resistant markers can be used to identify critical structures and areas of concern. Linear markers can be used to mark field borders, breast tangents, scars, match lines, outer canthus, and nodes.



X-SPOT® used to mark 3pt set-up on breast patient

[Product Safety Information](#)



Manufactured by Beekley Corporation
One Prestige Lane, Bristol, CT 06010 USA
Tel: 1-800-233-5539 or +1-860-583-4700 Fax: 1-800-735-1234 www.beekley.com
Made in the USA

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SPOT® Metallic Markers

SPOT® Metallic Markers

Metallic pellets, lines, and arrows help differentiate specific points of reference in conventional simulation and port films.



X-SPOT®

REF 101 QTY 150 / Box

- 1.5mm lead-free pellet
- For marking 3-point set-ups, isocenters, outer canthus and nodes



Y-SPOT®

REF 102 QTY 132 / Box

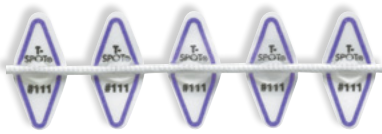
- 2.0mm lead-free pellet
- For marking 3-point set-ups, isocenters, outer canthus and nodes



D-SPOT®

REF 104 QTY 99 / Box

- lead-free arrow
- For marking nodes and outer canthus



T-SPOT®

REF 111 QTY 275cm cut to measure roll / Box

- .8mm diameter radiopaque line
- For marking scars, nodes, field borders, match lines and breast tangents



Z-SPOT®

REF 114 QTY 40 / Box

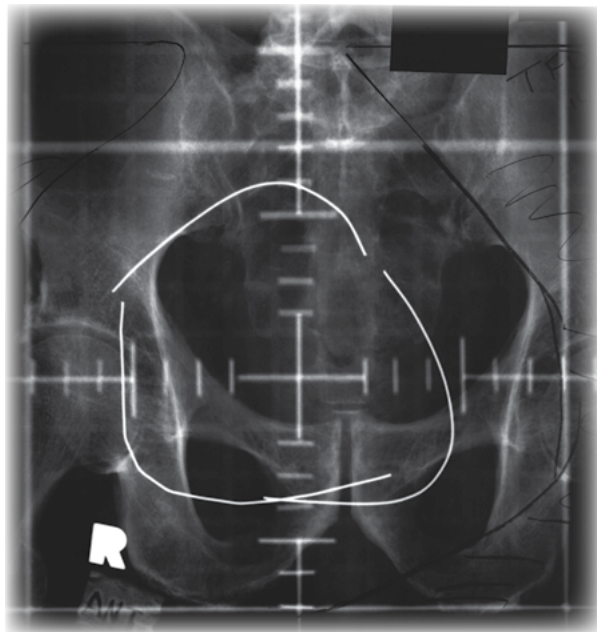
- 4.3mm lead-free pellet
- For marking port films



V-SPOT®

REF 603 Florals® QTY 130 / Box

- 2.5mm lead-free pellet
- For marking 3-point set-ups and isocenters



T-SPOT used to identify size and location of abdominal tumor



Y-SPOT used for 3-point set-up on prostate

Call 1-800-233-5539 • Fax 1-800-735-1234 • Visit www.beekley.com • Email info@beekley.com

Customers outside the U.S. – Contact your local distributor for pricing and product availability.
To locate a distributor call +1-860-583-4700 or email international@beekley.com