

PRONE BREAST RADIOTHERAPY IMPROVES BREAST CANCER TREATMENT FOR WOMEN WITH LARGE
BREASTS

An innovative alternative for women who might not otherwise be considered candidates for breast conservation.

The Trinitas Comprehensive Cancer Center (TCCC) now provides a new breast positioning radiotherapy technique for women with early stage breast cancer. The innovative new technique offers an improved alternative therapy for women with large pendulous breasts. This new technique provides improved positioning of breasts and targeting of tumors while avoiding radiation exposure to the heart and lungs.

"Before prone breast radiotherapy, women with large breasts would be positioned, as most other radiotherapy patients are, on their backs, to receive the radiation treatment. Gravity would bring the breasts into positions that created some exposure to the heart and lungs," said Dr. Eli Finkelstein, Chairman of Radiation Oncology at the Trinitas Comprehensive Cancer Center. "With this new technique, we not only solve the problem of direct exposure of the heart and lung to radiation, but we can also provide more precise dose homogeneity and replicable treatment plans."

Successfully delivering a radiation therapy treatment plan is contingent upon being able to precisely deliver the proper dose of radiation, and repeating similar treatments over multiple sessions that can span several weeks. "It has been difficult in the past to deliver an optimal and consistent dosage to women with large breasts over the course of their radiation therapy treatment, compared to women with smaller-sized breasts," said Linda Veldkamp, Chief Physicist and Administrative Director of Radiation Oncology at TCCC. "With prone-breast radiotherapy, we can now deliver consistent dose homogeneity more readily."

The standard for treating women with early stage breast cancer has become local excision followed by adjuvant radiotherapy. Physicians at Trinitas Comprehensive Cancer Center now offer their patients a prone positioning technique as another tool that empowers them to fight cancer most effectively. The technique uses a prone-breast positioning board, which is secured on top of a platform where patients are positioned to receive their radiotherapy treatment from a linear accelerator. Woman lay face down so that the breast is suspended away from the body. In this position, the heart and lungs are no longer in the direct path of the radiation beams. The radiation exposures and thus the potential risks and side effects to these critical structures are significantly minimized.

"Women with large breasts are often dissatisfied with the final cosmetic results after mastectomies and breast reconstruction," said Dr. Finkelstein. "With this new technique, more women can opt for a less intrusive breast sparing surgery followed by an effective radiotherapy treatment approach with a more pleasing cosmetic result."

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Posted: January 19, 2006