

Breast tomosynthesis was recently approved by the FDA for use in screening and diagnosis of breast cancer. The use of breast tomosynthesis in combination with conventional mammography has been shown to significantly improve the clinical performance of radiologists as measured by the ROC curves. The major impact of tomosynthesis will be improved detection and characterization of masses and architectural distortion. Reader studies have demonstrated improved performance in both fatty and dense breasts.

The methods used for obtaining and reviewing tomosynthesis images will be demonstrated. Physics testing of these systems will also be described and compared to the testing used for FFDM.

This presentation will discuss the use of breast tomosynthesis as a screening modality and will review the performance for calcification and non-calcification lesions and the clinical utility in both fatty and dense breasts.

Educational Objectives:

1. Describe the methods for acquiring breast tomosynthesis images
2. Appreciate the physics testing methods
3. Describe the clinical utility and research supporting the use of breast tomosynthesis for breast cancer screening.