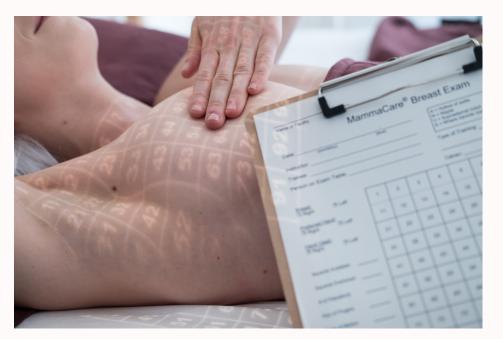
Advanced Clinical Breast Exam Training

The MammaCare CBE Simulator is an advanced, web-based clinical training platform that teaches, measures, and verifies the user's breast exam skills. Within 2-3 hours of instruction and palpation practice, the system quantifies performance, corrects examination deficiencies, and reports breast exam competencies to supervisors. To complete the training, users are required to reliably detect all suspicious masses (0.3cm - 1.0cm) without increasing false positives.

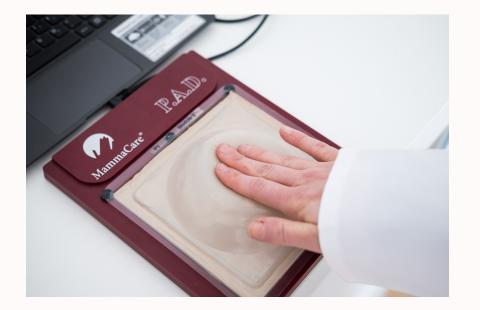


Breast Exam Learning Objectives

- » Learn common benign and malignant breast conditions that can be seen during a visual inspection.
- » Perform thorough clavicular and axillary examinations to identify enlarged lymph nodes.
- » Position patient to evenly distribute breast tissue over chest wall.
- » Module 1 Breast Model Exam: Discriminate between normal breast nodularity and suspicious lesions.
- Module 2 Breast Model Exam: Detect all of the lesions (0.7cm 1cm) in the breast model and palpate at least 90% of the breast tissue.
- » Module 3: Detect all of the lesions (0.5cm 0.7cm) in the breast model and palpate at least 90% of the breast tissue with ≤2 false positives reported.
- » Module 4: Detect all of the lesions (0.3cm 0.7cm) in the breast model and palpate at least 90% of the breast tissue with ≤1 false positives reported.



Training Components



MammaCare's tactually-accurate breast models contain polymeric replicas of excised lesions. Each breast model presents a unique configuration of tumors and breast tissue density.

Tumor characteristics:

- » Size: 0.3cm 1cm
- » Firmness: 20dur 60dur
- » Movability: Fixed, Movable
- » Depth: Superficial, Medium, Chest Wall



MammaCare clinical breast examination training curriculum is presented via:

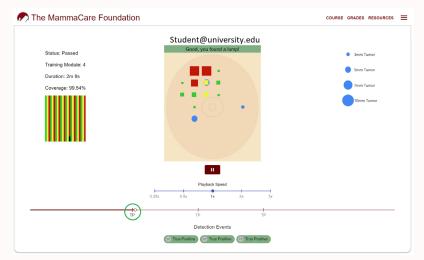
- » Instructional videos
- » Didactic lessons
- » Quizzes and questionaires
- » Hands-on tactile training modules

Video demonstration available at learn.mammacare.org.

Measure Core Breast Exam Competencies

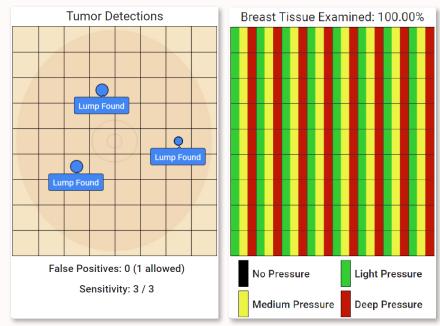
Each breast exam is stored in the cloud and available to the trainee and supervisors for review as a snapshot and as a real-time playback, and documents:

- » Sensitivity: True positive tumor detections
- » Specificity: False positive tumor detections
- » Thoroughness: Breast tissue coverage

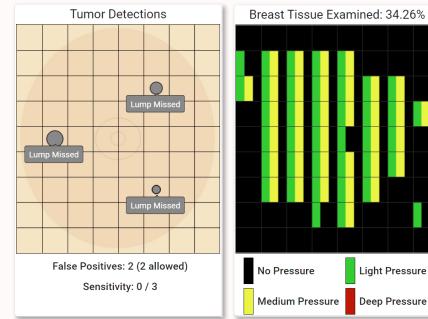


Real-time Playback





Pre-training Exam



Measure Group Level Breast Exam Competencies

Monitor breast exam competencies across all users and locations using MammaCare's online learning management system.

	Cohort		Pretraining	Module 2			Module 3			Module 4		
				Att 1	Att 2	Att 3	Att 1	Att 2	Att 3	Att 1	Att 2	Att 3
^	[COHORT NAME]	N	39	37	21	10	34	15	5	32	18	5
		Mean TPs	0.59	1.62	1.62	2.00	2.65	2.47	3.00	2.38	2.83	3.00
		Mean FPs	1.67	2.46	2.90	2.20	0.74	1.33	0.40	0.91	0.44	0.00
		Mean Coverage	46.00%	89.00%	88.00%	96.00%	98.00%	90.00%	98.00%	98.00%	97.00%	98.00%
		Mean Time	154.00s	477.00s	513.00s	355.00s	467.00s	309.00s	356.00s	456.00s	272.00s	192.00s
		# Passed (%rate)	1 (2.56%)	16 (43.24%)	11 (29.73%)	10 (27.03%)	19 (55.88%)	10 (29.41%)	5 (14.71%)	14 (43.75%)	13 (40.63%)	5 (15.63%)

