

The Clinical Breast Examination

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Screening for Breast Cancer

- Breast cancer common
- Mortality related to stage at diagnosis
- Test non-invasive, inexpensive
- Treatment efficacious

Screening Modalities

- Mammography
- Clinical Breast Examination
- Breast Self-Examination

Clinical Breast Examination: Test Characteristics

- **Sensitivity** = number of positive tests among those with disease
- **Specificity** = number of negative or normal tests in those without disease

Sensitivity and Specificity

- Difficulties in measurement
 - Number women screened
 - Cancer outcomes
 - Concurrent mammography
- Six trials available with adequate data

Sensitivity of CBE

Pooled Result

54.1 (48.3-59.8)

Specificity of CBE

Pooled Data

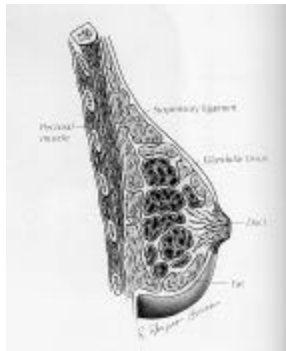
94.0 (90.2-96.9)

CBE versus Mammography

- Sequence of tests
- Mammography not “gold standard”

Normal Breast Physiology

- Glands
- Ducts
- Ligaments
- Fat

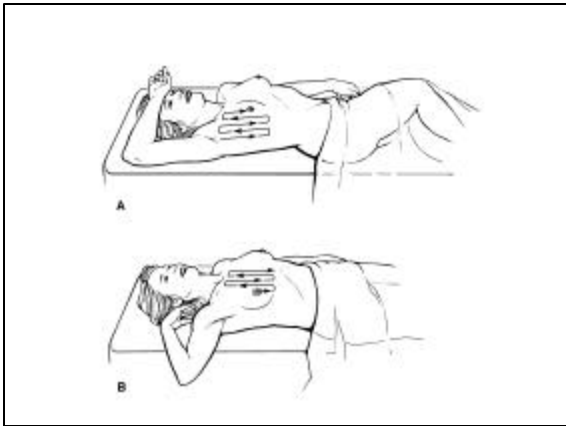


Components of CBE Technique

- Search pattern
- Finger technique
 - Finger pads
 - Circular motion
 - Three levels of palpation
- Time spent on exam

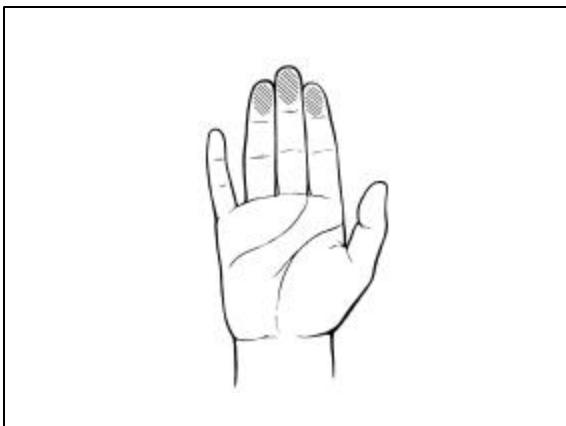
Vertical Strip Pattern

- Superior coverage compared to other patterns
- Concentric circle
 - Radial spoke

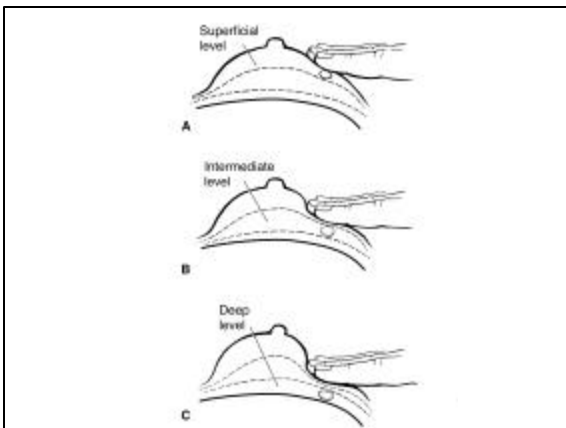


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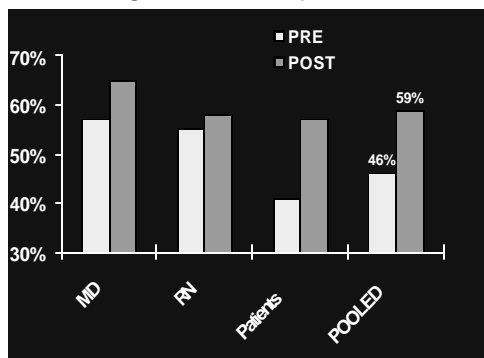
Time Spent on CBE

- Increased duration associated with higher sensitivity
- NBSS standard: 5-10 minutes

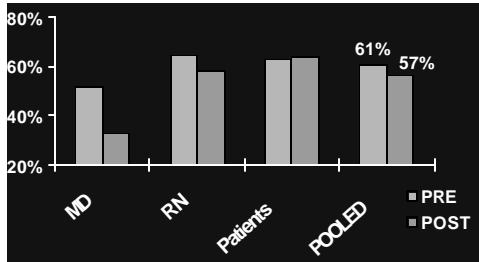
Training to Improve the CBE

- Mammacare Method
- Trials in
 - Lay women
 - Medical students
 - Resident physicians
 - Graduate nurses

Training: Sensitivity of CBE



Training: Specificity of CBE



Description of Findings

- Location
 - surface: quadrants or clock
 - level: skin versus subcutaneous
- Shape
- Firmness/distensibility
- Mobility

Yes No
 Yes No
 Yes No
 Yes No
 Yes No

Systemic Blood Flow by Rearming
 Patient Information
 Name: _____
 Age: _____ Sex: _____
 Height: _____ Weight: _____
 Race: _____ Ethnicity: _____
 Date of Birth: _____
 Date of Exam: _____

Systemic Blood Flow by Rearming
 Examination
 Right Arm: _____
 Left Arm: _____
 Right Leg: _____
 Left Leg: _____

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How to Improve the Examination?

- “From the beginning” for students and trainees
 - Silicone models
 - Lay teaching associates
- For those in practice
 - Practice: models, patients
 - CME/CEU for clinicians

CBE Simulator