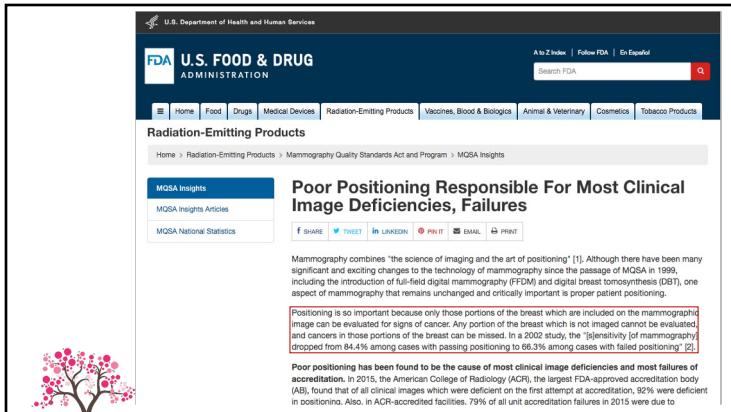
The Importance of Standardized Positioning

Louise Miller, R.T.(R)(M)(ARRT), CRT(M), FSBI, FNCBC
Director of Education, Mammography Educators

1



Source: U.S. Food & Drug Administration

2

US Food and Drug Administration

- "In a 2002 study, the '[s]ensitivity [of mammography] dropped from 84.4% among cases with passing positioning to 66.3% among cases with failed positioning'."
- "Poor positioning has been found to be the cause of most clinical image deficiencies and most failures of accreditation." (92%)

3

Decreased Sensitivity

- 84.4% with proper position
- 66.3% with failed positioning

= 18.1% decreased sensitivity

4

Quality Standards: Why?

ALL industries have established *standardized* methods in the performance of tasks to:

- Establish and maintain quality
- Increase consumer satisfaction
- Increase profit
- Reduce possibility of litigation
- Reduce errors

MAMMOGRAPHY EDUCATORS

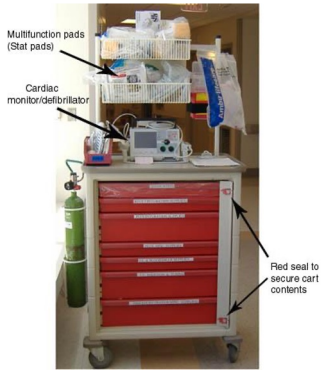
5

How do we reduce medical errors?

- Standardization
- Consistency
- Reproducibility

MAMMOGRAPHY EDUCATORS

6



MAMMOGRAPHY EDUCATORS

7

Standardized Technologist Training for General Radiology

MAMMOGRAPHY EDUCATORS

8

Standardization

- We all position the same way for every body part.
- We all do it in the same sequence.
- We all set up the machine before we bring the patient in.
- We all position the whole patient, not just the body part.

MAMMOGRAPHY EDUCATORS

9

In General Radiology

All training is competency based, and a technologist's skills will be evaluated for *positioning techniques,* as well as *clinical image evaluation.*

MAMMOGRAPHY EDUCATORS

10

MAMMOGRAPHY EDUCATORS

11

Consistency and Ergonomics

- **M**achine
- **P**atient
- **B**ody Part (Breast)

MAMMOGRAPHY EDUCATORS

12

We position the **whole patient**, not just the body part!

MAMMOGRAPHY EDUCATORS

13

MAMMOGRAPHY EDUCATORS

14

All exams are done using the *same* positioning technique, in the *same* sequence.

MAMMOGRAPHY EDUCATORS

15

WHY???

- Consistency
- Reproducibility
- Efficiency
- Proficiency
- Use of proper body mechanics

MAMMOGRAPHY EDUCATORS

16

But in mammography…
We are "all over the map"

- LCC, LMLO, RMLO, RCC
- RCC, LCC, RMLO, LMLO
- RMLO, RCC, LMLO, LCC
- LCC, RCC, LMLO, RMLO
- RCC, RMLO, LMLO, LCC
- LCC, LMLO, RCC, RMLO
- LMLO, LCC, RCC, RMLO

MAMMOGRAPHY EDUCATORS

17

My Suggestion:

- Do CC's first
- Then, do the MLO on the side you just finished the CC
- Then, do the other MLO

Example: RCC, LCC, LMLO, RMLO

MAMMOGRAPHY EDUCATORS

18

So why is this true for all body parts in radiology EXCEPT in Mammography???

MAMMOGRAPHY EDUCATORS

19

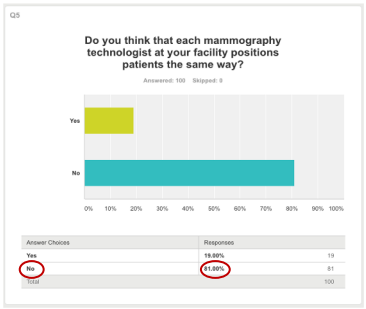
In Mammography…

- Most technologists have not been taught a standardized method of positioning
- Most technologists have been taught various positioning methods by various technologists

MAMMOGRAPHY EDUCATORS

20

Most technologists *do not* practice a standardized method of positioning or position the same way.



MAMMOGRAPHY EDUCATORS

21

No Standards for Mammography Positioning

There are standards for WHAT images should look like, but not HOW you get to that point!

MAMMOGRAPHY EDUCATORS

22

So, the problem is…

No standardization or follow-through, which means:

- Less consistency and reproducibility
- More repeats and rejects
- More accreditation failures
- Increased exposure
- MISSED BREAST CANCERS???

MAMMOGRAPHY EDUCATORS

23

How can we make things better?

Consistency and Reproducibility

MAMMOGRAPHY EDUCATORS

24

Mammography Positioning Techniques

Should be:

- Consistent
- Reproducible
- Efficient
- Consistent
- Proficient
- Based on sound ergonomic principles

MAMMOGRAPHY EDUCATORS

25

Common Work-Related Injuries

- Wrist problems
- Shoulder problems
- Back
- Knees
- Hips

MAMMOGRAPHY EDUCATORS

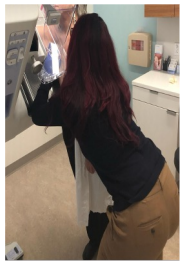
26

YES!!! NO!!!

MAMMOGRAPHY EDUCATORS

27

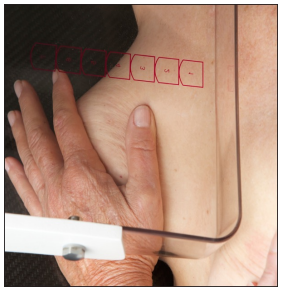
YES!!! NO!!!



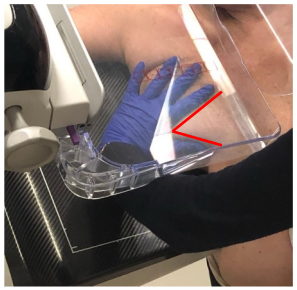
MAMMOGRAPHY EDUCATORS

28

YES!!!



NO!!!



MAMMOGRAPHY EDUCATORS

29

Do Standardized Positioning Techniques for Mammography Work?

- Scientific studies prove that standardized positioning techniques improve image quality
  - Visualization of more posterior and lateral breast tissue, IMF and pectoralis muscle on the CC
- Unpublished data showed that standardized positioning techniques decrease repeats, rejects and technical call backs
  - By up to 50%!

MAMMOGRAPHY EDUCATORS

30

AJR

American Journal of Roentgenology

Mammography Positioning Standards in the Digital Era: Is the Status Quo Acceptable?

Ashley I. Huppe[1]
Kelly L. Overman[2]
Jason B. Gatewood[1]
Jacqueline D. Hill[1]
Louise C. Miller[2]
Marc F. Inciardi[1]

OBJECTIVE. The objective of our study was to evaluate positioning of full-field digital mammography (FFDM) and digital breast tomosynthesis (DBT) compared with film-screen (FS) mammography positioning standards.

MATERIALS AND METHODS. A retrospective study was conducted of consecutive patients who underwent screening FFDM in 2010–2012 and DBT in 2012–2013 at an academic institution. Examinations were performed by five experienced technologists who underwent updated standardized positioning training. Positioning criteria were assessed by consensus reads among three breast radiologists and compared with FS mammography data from a 1993 study by Bassett and colleagues.

RESULTS. One hundred seventy patients ($n = 340$ examinations) were analyzed, showing significant differences between FFDM and DBT examinations ($p < 0.05$) for medial or inferior skin folds (FFDM vs DBT: craniocaudal [CC] view, 16% [$n = 56$] vs 23% [$n = 77$]; mediolateral oblique [MLO] view, 35% [$n = 118$] vs 45% [$n = 154$]), inclusion of lateral glandular tissue on CC view (FFDM vs DBT, 73% [$n = 247$] vs 81% [$n = 274$]), and concave pectoralis muscle shape (FFDM vs DBT, 36% [$n = 121$] vs 28% [$n = 95$]). In comparison with Bassett et al. data, all positioning criteria for both FFDM and DBT examinations were significantly different ($p < 0.05$). The largest differences were found in visualization of the pectoralis muscle on CC views and the inframammary fold on MLO views, inclusion of posterior or lateral glandular tissue, and inclusion of skin folds, with DBT and FFDM more frequently exhibiting all criteria than originally reported Bassett et al. findings.

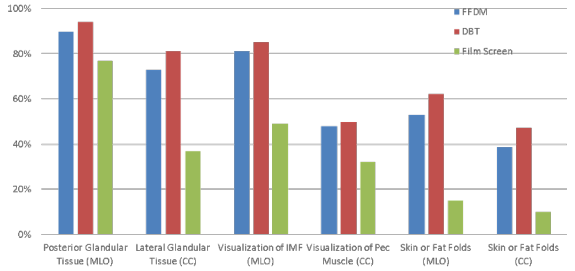
CONCLUSION. DBT and FFDM mammograms more frequently include posterior or lateral tissue, the inframammary fold on MLO views, the pectoralis muscle on CC views, and skin folds than FS mammograms. Inclusion of more breast tissue with newer technologies suggests traditional positioning standards, in conjunction with updated standardized positioning training, are still applicable at the expense of including more skin folds.

MAMMOGRAPHY EDUCATORS

Source: American Journal of Roentgenology: 209, December 2017

31

Criteria Met After Standardized Training*



MAMMOGRAPHY EDUCATORS

Source: American Journal of Roentgenology: 209, December 2017

32

Reasonable Expectations for the CC

	Positioning Criteria	FFDM	DBT	Bassett
CC View	Pec Muscle Visualized	48%	50%	32%
	No Motion	100%	98%	-
	Lateral Glandular Tissue Included	73%	81%	37%
	Nipple in Profile	83%	85%	89%
	Skin or fat folds	39%	47%	10%
	Medial Location	16%	23%	-
	Lateral Location	29%	32%	-
	Visualization of Cleavage	41%	34%	-
	Requires More Than One View	5%	7%	-

Source: American Journal of Roentgenology: 209, December 2017

33

Reasonable Expectations for the MLO

	Positioning Criteria	FFDM	DBT	Bassett
MLO View	Visualization of Pec Muscle to PNL	86%	87%	81%
	Concave Pec	36%	28%	-
	Straight Pec	41%	46%	-
	Convex Pec	23%	26%	-
	Wide Margin at Top of Pec	95%	93%	-
	No Motion	98%	97%	99%
	Posterior Glandular Tissue Included	90%	94%	77%
	Nipple in Profile	89%	92%	88%
	Skin or fat folds	53%	62%	15%
	Upper Location	25%	27%	-
	Lower Location	35%	45%	-
	Visualization of Inframammary Fold	81%	85%	49%
	Requires More Than One View	13%	17%	-

Source: American Journal of Roentgenology: 209, December 2017

34

Reasonable Expectations

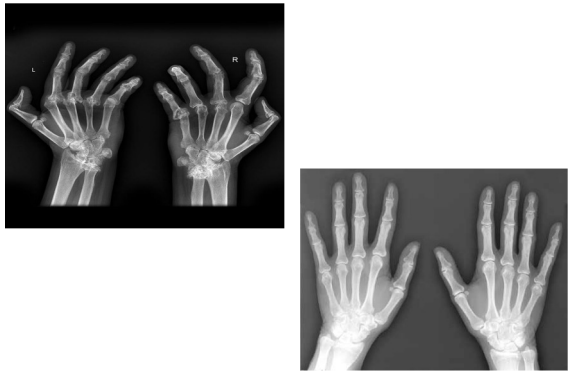
- Our patients have different and often challenging body habitus
- Their breast size, shape, mobility and tenderness are hugely variable

35

Reasonable Expectations

Even the "perfect" patient, in terms of body habitus, breast mobility, etc. may provide a challenge that inhibits the technologist's ability to position and compress properly.

36



37

38

39

But regardless of these variables, we CAN improve image quality by ***using standardized positioning techniques*** *and* developing a strong knowledge-based foundation that depends on the technologist's understanding of correlative anatomy.

40

RCC: Steps 1-9 (Front)

MAMMOGRAPHY EDUCATORS

41

Quick Steps for the CC (Left)

___ 1. Elevate breast/IMF (until the PNL is perpendicular to the chest wall)
___ 2. Adjust IR height (so top edge is parallel with elevated IMF)
___ 3. Pull the breast onto the IR with both hands (left hand on top; right hand on bottom) and at the same time ask the patient to step forward into the machine (no leaning) and have them turn their face towards you
___ 4. Switch hands, so your right hand is on the top (palm down) and anchor the breast with the base of your right thumb.
___ 5. Lift the opposite/contralateral breast onto the IR with your left hand, palm facing up; then ask the patient to turn their right hip forward.
___ 6. Guide the patient's head forward and around the face shield, if possible
___ 7. Place your left elbow and forearm at the mid thoracic region (where their bra clasp would be) and gently push the patient forward
___ 8. Relax patient's left shoulder with your left hand, if possible
___ 9. Pull superior breast tissue forward by placing the base/edge of your right thumb on top of the breast against the chest wall, then apply compression while continuing to "push" the patient forward

MAMMOGRAPHY EDUCATORS

Source: Mammography Educators

42

RMLO: Steps 1-10

MAMMOGRAPHY EDUCATORS

43

Quick Steps for the MLO (Left)

___ 1. Stand perpendicular to the patient with your sternum pressing against patient's right humerus
___ 2. Lift patient's left shoulder/arm up over the corner of the IR with your right hand in the patient's axilla. At the same time, your right hand should "meet" your left hand in the axilla and help to lift the patient's left shoulder up and over the IR
___ 3. IR is placed in back of axilla (just interior to latissimus dorsi)
___ 4. Patient's left hand should be resting on bar, with their elbow bent behind the IR
___ 5. Place your left hand on patient's left shoulder (if possible) to keep their shoulder relaxed and down
___ 6. Your right hand, with palm facing up, slides down lateral side of the breast to pull on lateral breast tissue and smooth out any skin folds
___ 7. Once your right hand is at the bottom of the breast, turn your hand over so that your hand is now palm down on the breast with the base of your thumb just anterior to the IMF
___ 8. Push the breast up and out with the base of your thumb, keeping continuous contact with the breast
___ 9. At the same, ask the patient to lift and flatten their other breast, as needed
___ 10. Continue to hold the breast in the up and out position until compression is complete

MAMMOGRAPHY EDUCATORS

Source: Mammography Educators

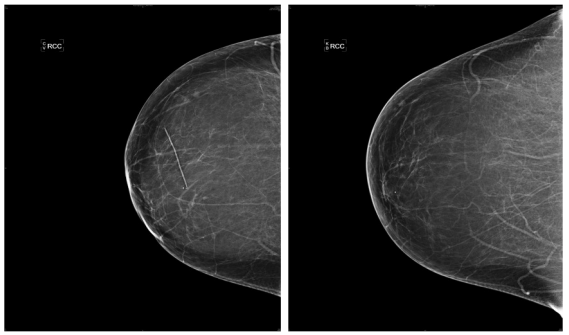
44

Does it work??

MAMMOGRAPHY EDUCATORS

45

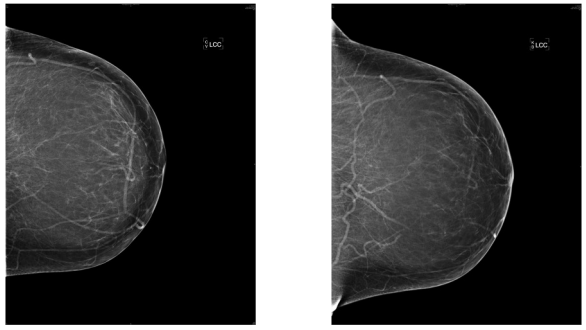
BEFORE 13.1 cm | STANDARDIZED POSITIONING + 3.0 cm | AFTER 16.6 cm



MAMMOGRAPHY EDUCATORS

46

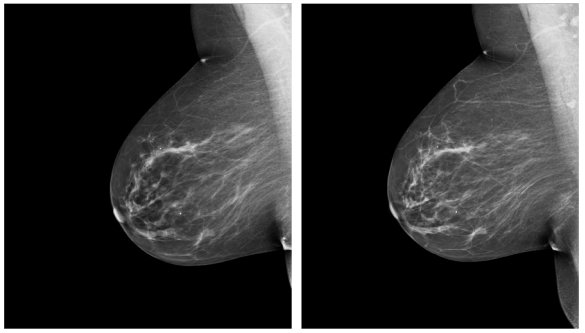
BEFORE 14.8 cm | STANDARDIZED POSITIONING + 2.0 cm | AFTER 16.8 cm



MAMMOGRAPHY EDUCATORS

47

BEFORE 13.9 cm | STANDARDIZED POSITIONING + 1.3 cm | AFTER 14.6 cm



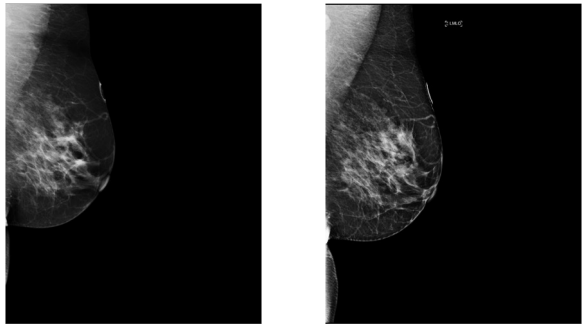
MAMMOGRAPHY EDUCATORS

48

BEFORE
11.8 cm

STANDARDIZED POSITIONING
+ 1.0 cm

AFTER
12.8 cm

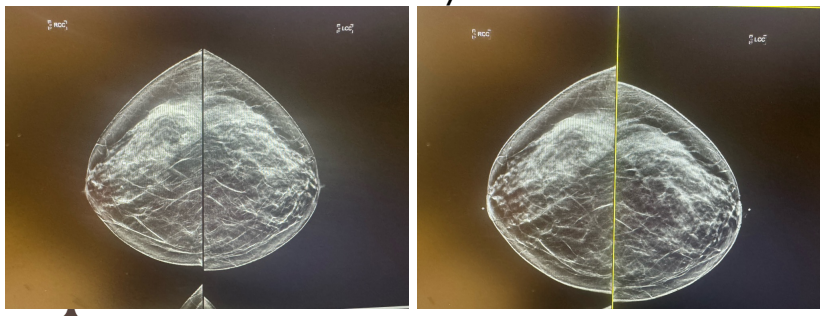


MAMMOGRAPHY EDUCATORS

49

Consistency and Reproducibility

Different techs – Different years – Miller Method

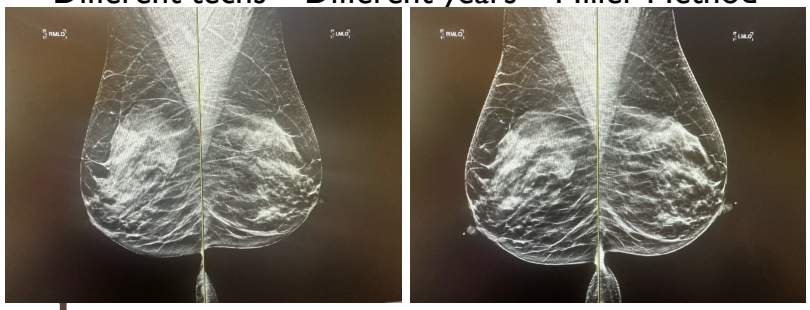


MAMMOGRAPHY EDUCATORS

50

Consistency and Reproducibility

Different techs – Different years – Miller Method



MAMMOGRAPHY EDUCATORS

51

MAMMOGRAPHY EDUCATORS

52

It is ALL our responsibility to make sure that ALL patients receive the highest quality mammogram achievable.

MAMMOGRAPHY EDUCATORS

53

Back To The Basics

MAMMOGRAPHY EDUCATORS

54

Mammography should be taught according to scientific principle, NOT ANECDOTE!

MAMMOGRAPHY EDUCATORS

55

Anecdote vs Science

MAMMOGRAPHY EDUCATORS

56

Anecdote vs **Science**

MAMMOGRAPHY EDUCATORS

57

SCIENCE:

ANATOMY – PHYSIOLOGY – PHYSICS

MAMMOGRAPHY EDUCATORS

58

You lucked out…

MAMMOGRAPHY EDUCATORS

59

Except…

- Newton's Third Law: For every action there is a reaction
- Law of gravity

MAMMOGRAPHY EDUCATORS

60

Anatomy and Physiology

As they relate to mammography positioning, using general radiology principles…

61

Goals for **General Radiology** Positioning

- Bring the body part back to its true anatomical position OR the position that will best visualize that body part
- Use palpable and visible anatomical landmarks for positioning and clinical image evaluation
- Use consistent and reproducible methods

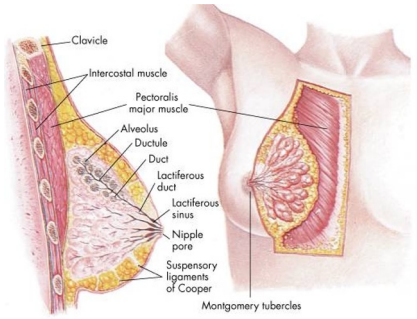
62

Goals for **Mammography** Positioning

Bring the breast back to its natural anatomical position (*with the nipple perpendicular to the chest wall as possible*) on both screening views to maximize visualization of breast tissue and to avoid superimposition of structures.

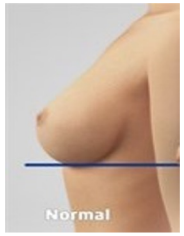
63

Anatomy of the Breast



64

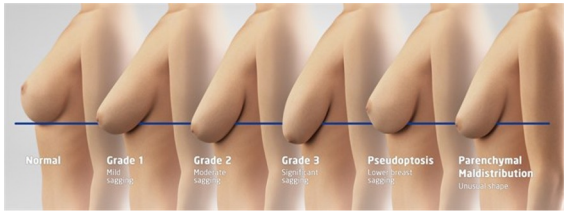
Normal or natural position of the breast is when the nipple is perpendicular to the chest wall.



MAMMOGRAPHY EDUCATORS

65

When positioning for mammography we need to bring the breast back to its 'normal' position.



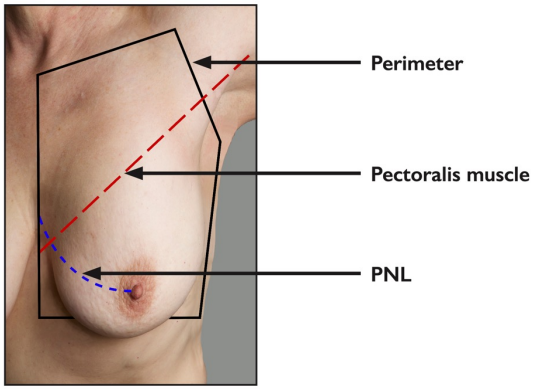
MAMMOGRAPHY EDUCATORS

66

In order to accomplish this and include the maximum amount of breast tissue, we must consider the anatomical landmarks that will be used for positioning and clinical image analysis.

MAMMOGRAPHY EDUCATORS

67



MAMMOGRAPHY EDUCATORS

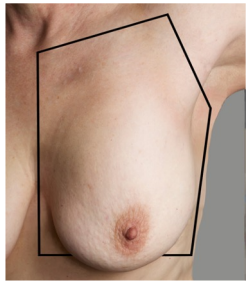
68

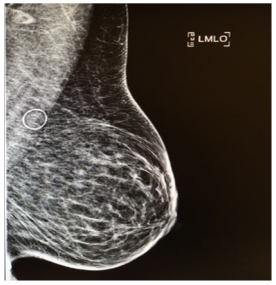
Perimeter of the Breast

MAMMOGRAPHY EDUCATORS

69

Perimeter Used for Positioning and Clinical Image Analysis

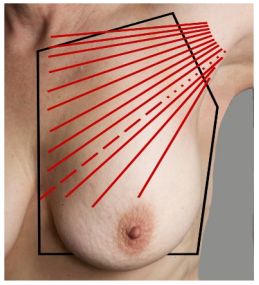


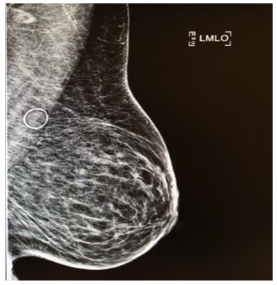


MAMMOGRAPHY EDUCATORS

70

Pectoralis Used for Positioning and Clinical Image Analysis



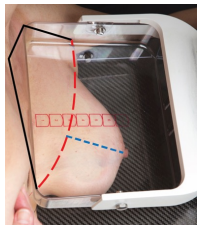


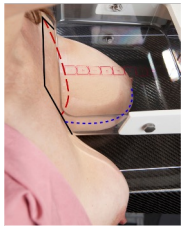
MAMMOGRAPHY EDUCATORS

71

PNL Used for Positioning

Elevate the breast so that the PNL is as close as possible to perpendicular to the chest wall.



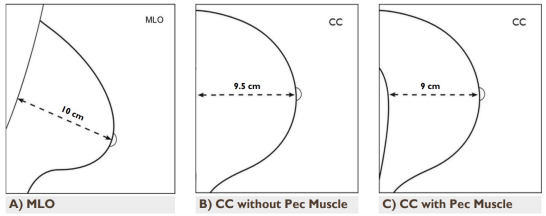


MAMMOGRAPHY EDUCATORS

72

PNL Used for Clinical Image Analysis

PNL measurement of CC should be within 1cm of the PNL measurement on the MLO.

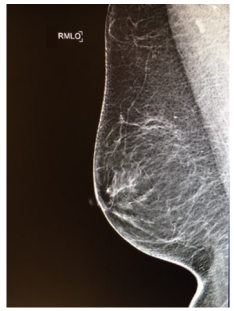


MAMMOGRAPHY EDUCATORS

73

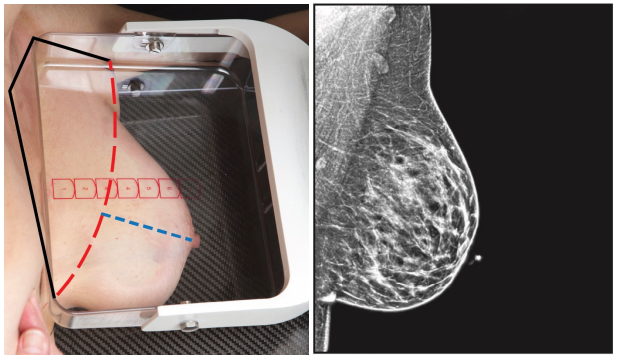
The MLO

- Inclusion of all breast tissue within perimeter
- Pectoral muscle fully visualized
- Tissue well separated
- Tissue visualized back to retromammary fat space
- IMF



MAMMOGRAPHY EDUCATORS

74



MAMMOGRAPHY EDUCATORS

75

The MLO

Visualization of the pectoral muscle:

- The pectoralis muscle is not really part of the breast
- However, it serves as an important anatomical landmark for positioning and film evaluation

MAMMOGRAPHY EDUCATORS

76

The absence or presence of these characteristics will tell you exactly what you did right or wrong when positioning and therefore, whether you included or excluded breast tissue!

77

Remember

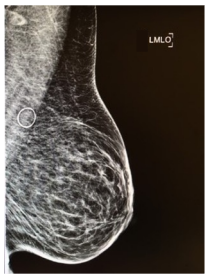
There are only two margins for error:

- The way the machine is set up (i.e. height, angle, compression paddle size, etc.)
- The way the patient is "set up": both feet, hips and shoulders facing forward

78

The MLO

- **Width**: wide margin at the top
- **Length**: down to the level of the PNL
- **Shape**: convex/straight



79

The MLO

WIDTH of the Muscle
There should be a wide margin of the pectoralis muscle at the top of the image (in the axilla).

80

The MLO

EQUIPMENT: Width of the muscle is related to placement of the IR in the axilla.

The back corner of the IR should be placed just anterior to the latissimus dorsi.

MAMMOGRAPHY EDUCATORS

81

MAMMOGRAPHY EDUCATORS

82

The MLO

PATIENT: Width of the muscle is related to the position of the patient.

The patient must be turned into the machine with both feet, hips and shoulders as far forward as possible. The patient's shoulder should be down and relaxed and if possible, held in position by the technologist.

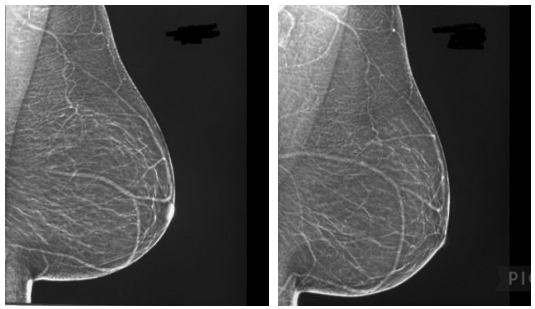
MAMMOGRAPHY EDUCATORS

83

MAMMOGRAPHY EDUCATORS

84

Width of the Muscle



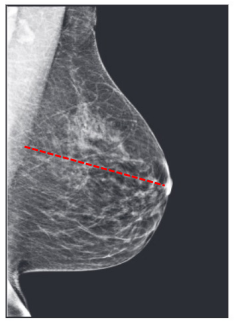
MAMMOGRAPHY EDUCATORS

85

The MLO

LENGTH of the Muscle

Should be visualized down to the level of the PNL.



MAMMOGRAPHY EDUCATORS

86

The MLO

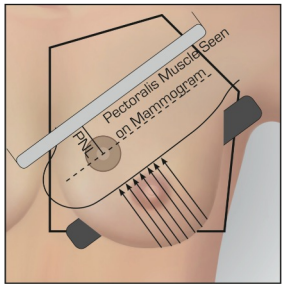
EQUIPMENT: Angle for the MLO

- Angle to the free margin of the pectoralis muscle
- Keep angulation consistent
- Steeper angle for patient with longer thoraxes and small breasts
- Lesser angles for shorter thoraxes and larger breasts

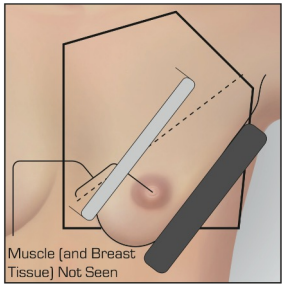
MAMMOGRAPHY EDUCATORS

87

Proper degree of angulation



Angle too steep



MAMMOGRAPHY EDUCATORS

88

Recommended Angulation for MLO

- Depends on body habitus
- Maintain consistency from year to year*

*An MLO angled at 56-degrees one year will look markedly different than an MLO angled at 42-degrees the next year.

Keep Angles Consistent

Use 5-degree increments; no more 43, 48, 52 degrees:

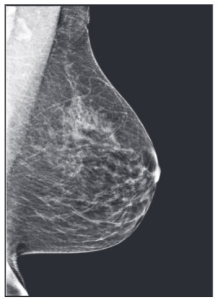
- 40 degrees for shorter, heavier patients with large breasts
- 45 degrees for average patients
- 50 degrees for tall, thinner patients with smaller breasts
- 35 degrees for patients who have undergone reduction

The MLO

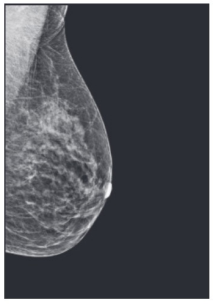
PATIENT: Length of the muscle is related to the position of the patient.

The patient must be turned into the machine with both feet, hips and shoulders as far forward as possible, as not to impede the progress of the compression paddle.

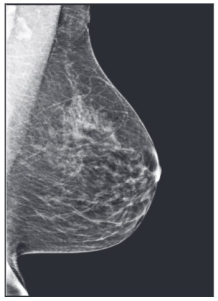
Proper degree of angulation

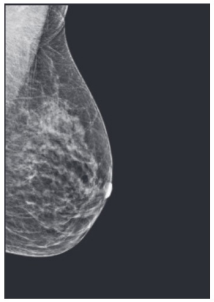


Angle too steep



OR…
The patient is not facing the machine properly.





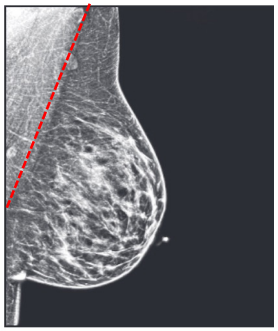
MAMMOGRAPHY EDUCATORS

93

The MLO

SHAPE of the Muscle

The muscle should be convex or straight.



MAMMOGRAPHY EDUCATORS

94

The MLO

EQUIPMENT: The shape and opacity of the muscle is related to the height of the IR

The top of the IR should be positioned at the height of the sternoclavicular joint or halfway between the top of the shoulder and the axillary crease.

MAMMOGRAPHY EDUCATORS

95

The MLO

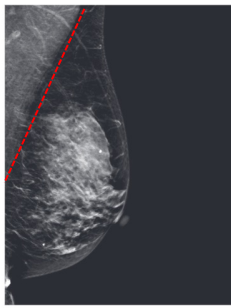
PATIENT: The shape and opacity of the muscle is related to the relaxation of the pectoralis muscle

Patient's shoulder, arm and hand must be relaxed with the elbow bent and relaxed behind the IR.

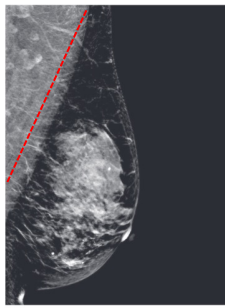
MAMMOGRAPHY EDUCATORS

96

Concave



Convex



97

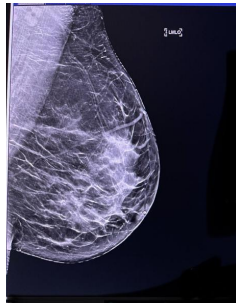
The MLO

Common problems:

- No visualization of the IMF
- Breast drooping

98

No IMF



IMF

99

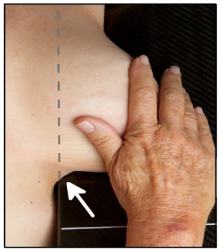
The MLO

The position of the patient related to the bottom, front corner of the IR is critical.

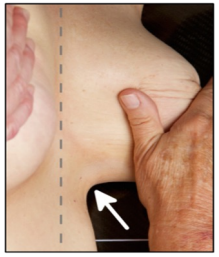
- Patient must be facing forward with both feet also forward
- Lower, front corner of the IR should be directly below the patient's nipple or halfway between their ASIS and umbilicus
- This requires the patient taking a side step towards you

100

Improper
Edge of IR in front of IMF



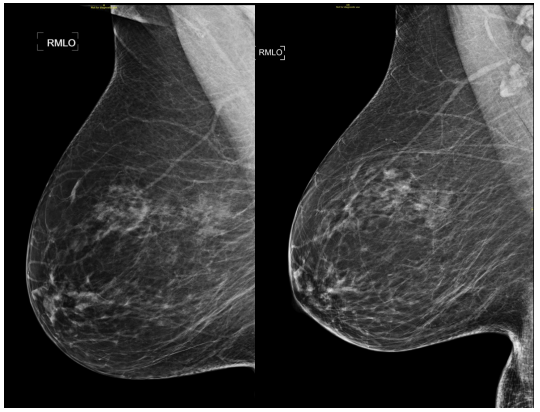
Proper
Edge of IR behind IMF



Top edge of IR indicated by vertical dotted line.

MAMMOGRAPHY EDUCATORS

101



MAMMOGRAPHY EDUCATORS

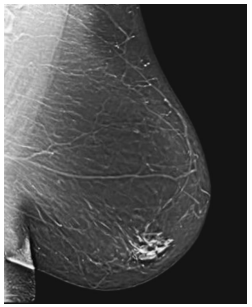
102

The "Sagging" Breast

MAMMOGRAPHY EDUCATORS

103

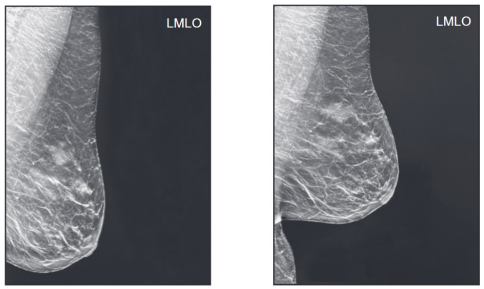
The "Sagging" Breast



MAMMOGRAPHY EDUCATORS

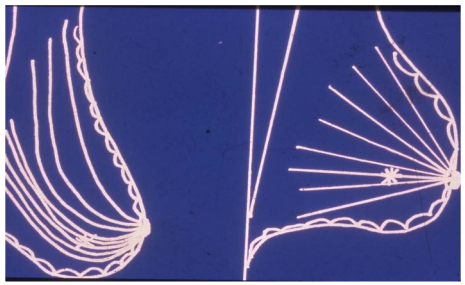
104

The "Sagging" Breast



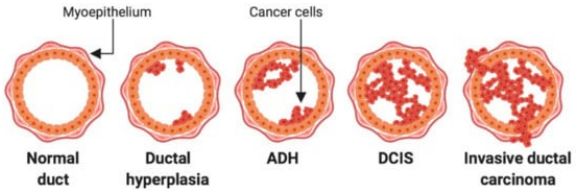
105

The "Sagging" Breast



106

Stages of Breast Cancer Development



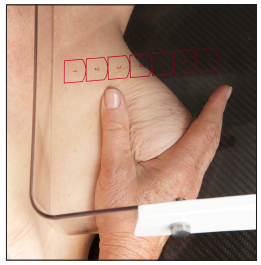
107

Position of the Breast

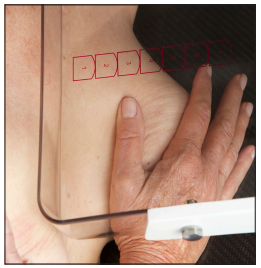
- Breast must be held in "up and out" position to bring the breast back to its "normal" position (nipple perpendicular to the chest wall)
- Maintained by adequate compression
- Don't let go until compression is complete

108

Solution for the "Sagging" Breast



Hold the breast in up and out position.



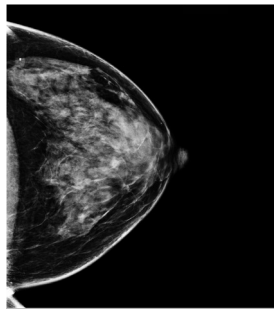
Compress.

MAMMOGRAPHY EDUCATORS

109

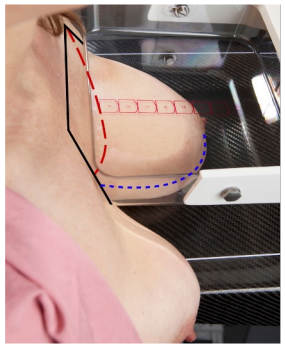
The CC

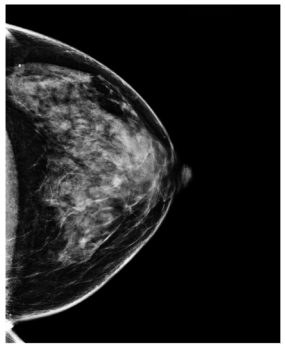
- Include maximum amount of breast tissue in the axial/transverse plane
- Visualization of medial breast tissue
- Visualization of pectoralis muscle on approximately 50% of all CCs
- PNL within 1cm of PNL on MLO



MAMMOGRAPHY EDUCATORS

110





MAMMOGRAPHY EDUCATORS

111

The CC

- The CC is done to provide an "orthogonal" view from the MLO
- When added to the MLO, it increases breast cancer detection
- While the CC is not primarily done to visualize medial breast tissue (cleavage), it is a "by-product" of doing a good CC
- If you miss breast tissue on the MLO, it will be deep medial tissue, so it is important to try to include that on the CC view

MAMMOGRAPHY EDUCATORS

112

The CC

Is it the equipment or the patient?

Equipment:
- IR too high or too low
- Compression paddle size

Patient:
- Facing towards the machine with both feet, hips and shoulders forward

MAMMOGRAPHY EDUCATORS

113

Due to lack of anatomical landmarks, positioning techniques are extremely important!!

MAMMOGRAPHY EDUCATORS

114

The CC

Common problems:
- Short CC (PNL measurement on CC is less than 1 cm of PNL measurement on the MLO)
- No pec muscle (remember the 50% rule!)
- No visualization of deep medial breast tissue (cleavage)

All are most often related to positioning technique vs equipment and patient position. (Although they are still important!)

MAMMOGRAPHY EDUCATORS

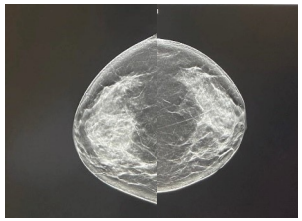
115

MAMMOGRAPHY EDUCATORS

116

Meet, Beat, **Repeat**

Year 1



Year 2

MAMMOGRAPHY EDUCATORS

117

Focus On

- Consistency
- Reproducibility
- Efficiency
- Proficiency
- Ergonomic principles

MAMMOGRAPHY EDUCATORS

118

Mammography Saves Lives!

But it is up to you…….

Even the best radiologist, in the best breast center cannot diagnose a cancer that is not included on the image.

MAMMOGRAPHY EDUCATORS

119

MAMMOGRAPHY EDUCATORS

120

References

"Poor Positioning Responsible For Most Clinical Image Deficiencies, Failures." U.S. Food and Drug Administration, 29 November 2017. https://public4.pagefreezer.com/browse/FDA/27-12-2022T08:32/https://www.fda.gov/radiation-emitting-products/mqsa-insights/poor-positioning-responsible-most-clinical-image-deficiencies-failures

Miller, Louise C., "A Technologist's Perspective of the FDA Report 'Poor Positioning for Most Clinical Image Deficiencies, Failures'." SBI News, 3 June 2016, https://mammographyeducation.com/a-technologists-perspective-of-the-fda-report/

Miller, Louise C., "What Every Mammography Technologist Would Like Their Radiologist to Know About: Our Patients." SBI Newsletter, 2015, https://mammographyeducation.com/what-every-mammography-technologist-would-like-their-radiologist-to-know-about-the-role-of-the-technologist/

James, John T. PhD. "A New, Evidence-based Estimate of Patient Harms Associated with Hospital Care." Journal of Patient Safety, September 2013, https://journals.lww.com/journalpatientsafety/Fulltext/2013/09000/A_New,_Evidence_based_Estimate_of_Patient_Harms.2.aspx

MAMMOGRAPHY EDUCATORS

121

MAMMOGRAPHY EDUCATORS

122

Interact with Breast Imaging Professionals from Around the World

Join our Facebook Group:

Quality Breast Imagers

MAMMOGRAPHY EDUCATORS

123

For questions or more information:

www.mammographyeducators.com
619-663-8269
info@mammographyeducators.com

Services we offer, include:
- Onsite Positioning Training
- Assistance with Accreditation & Inspection Processes
- Live Webinars
- Customized Continuing Education Programs

MAMMOGRAPHY EDUCATORS

124