Dr Erica Whineray Kelly

Breast Surgeon, Auckland

Diagnosis of Breast Cancer - Concurrent Workshop Session Repeated

Saturday, 11 June 2011	Start 11:00am	Duration: 55mins	Sovereign
	Start 12:05pm	Duration: 55mins	Sovereign

Diagnosis of Breast Cancer

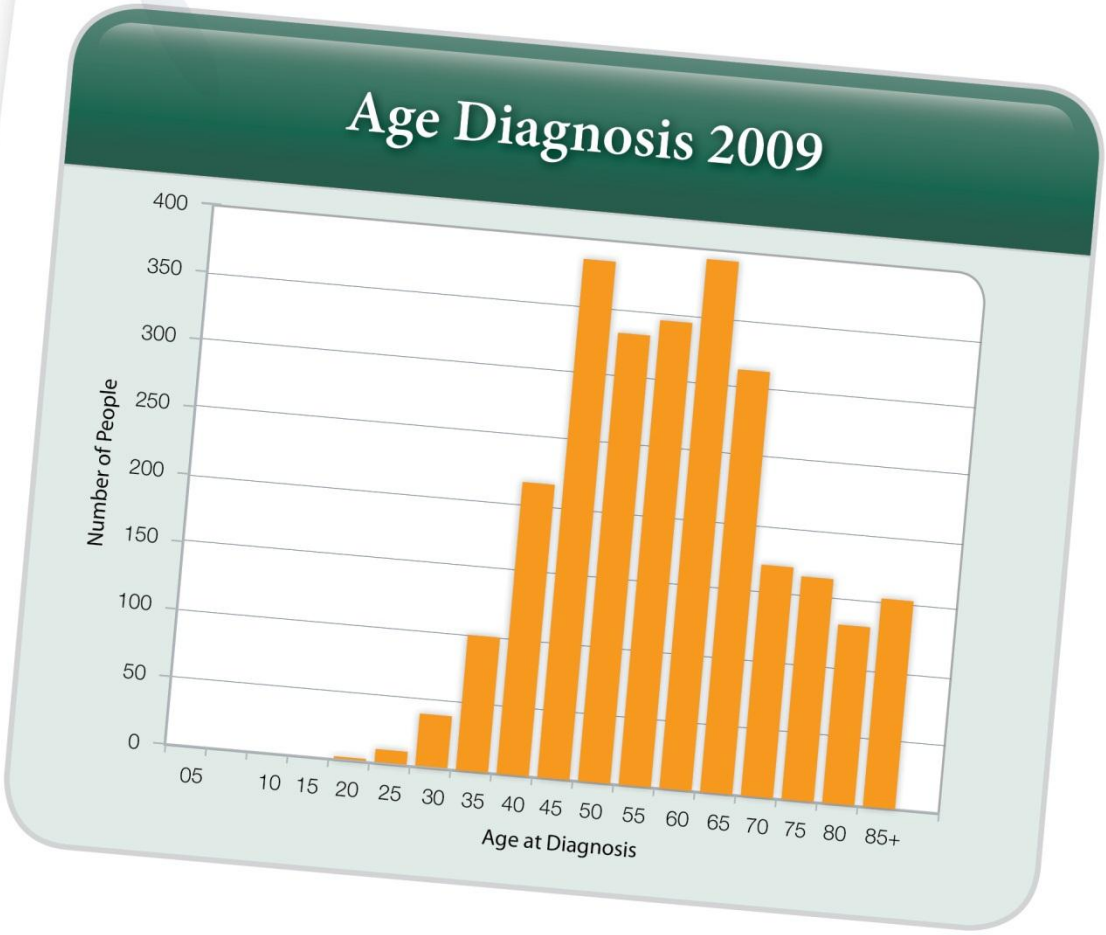
Dr. Erica Whineray Kelly
FRACS

The Stats….

- 2,750 women diagnosed per year
- 650 women die per year
- Incidence:
  1/8 women will develop breast cancer in their lifetime.

The Stats…

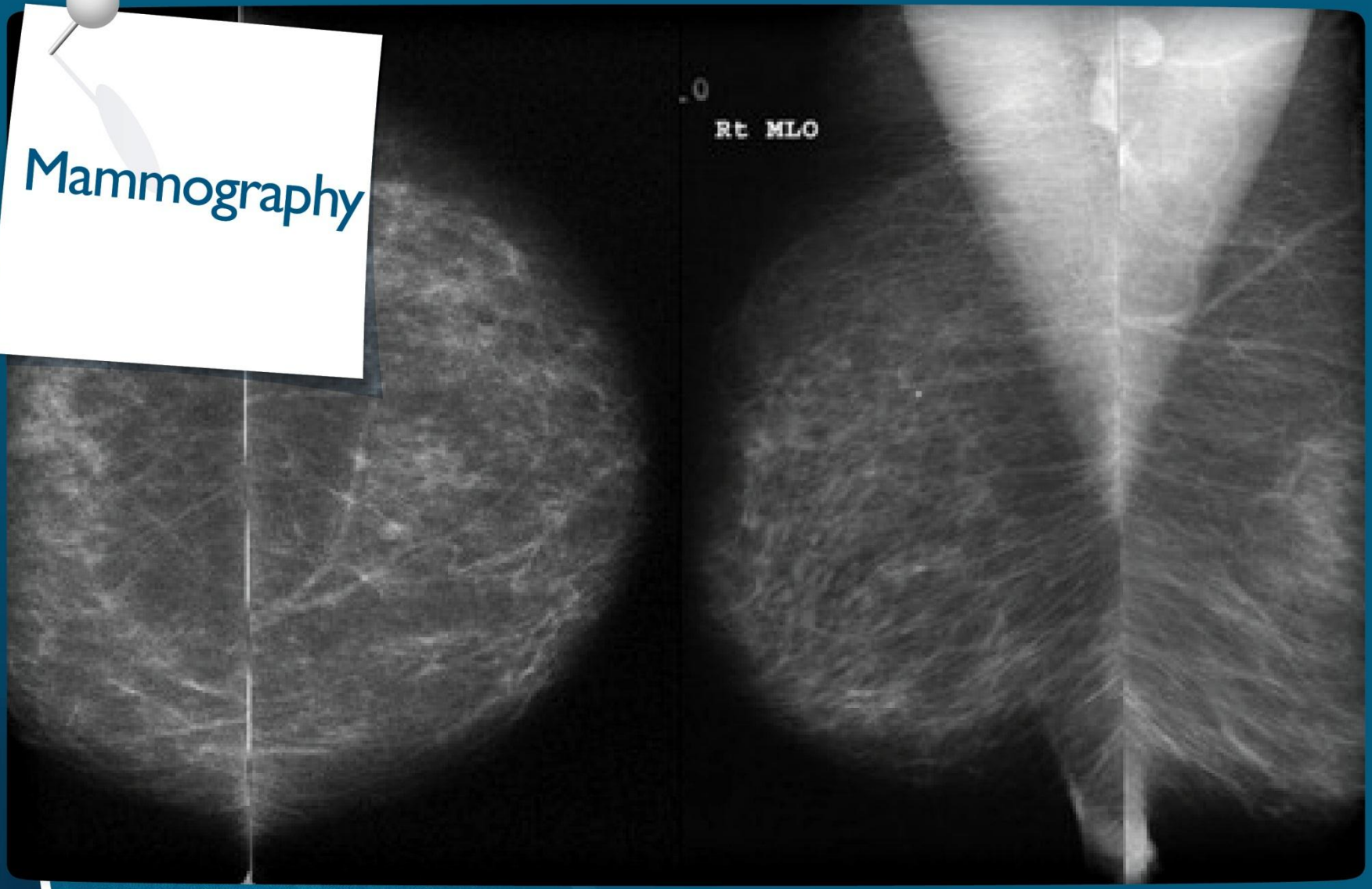
- Peak diagnosis 60- 65 years
- 5% < 40 years
- 22% women 40-50 years
- 22% > 70 years
- 10% > 80 years

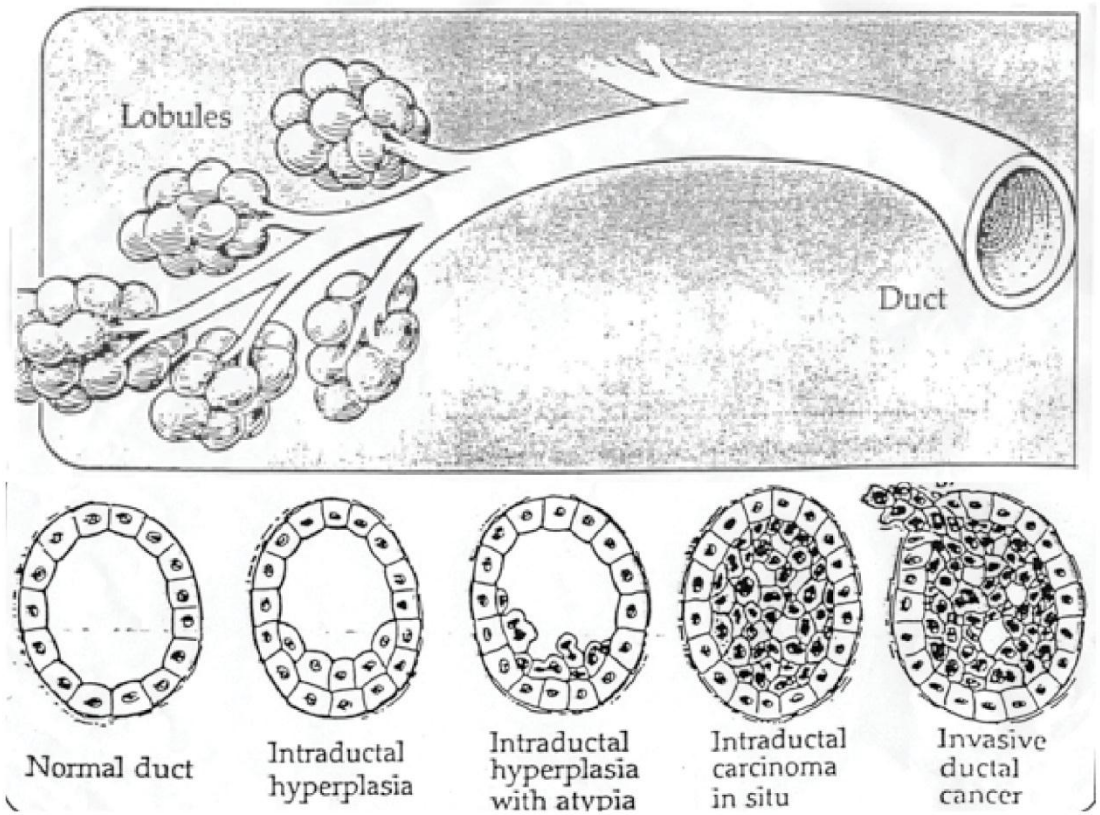

Age Diagnosis 2009
Number of People
400
350
300
250
200
150
100
50
0
05
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85+
Age at Diagnosis

Investigative Tools

- Mammography
- Ultrasound
- Thermography
- MRI
- CT
- PET- CT

Mammography

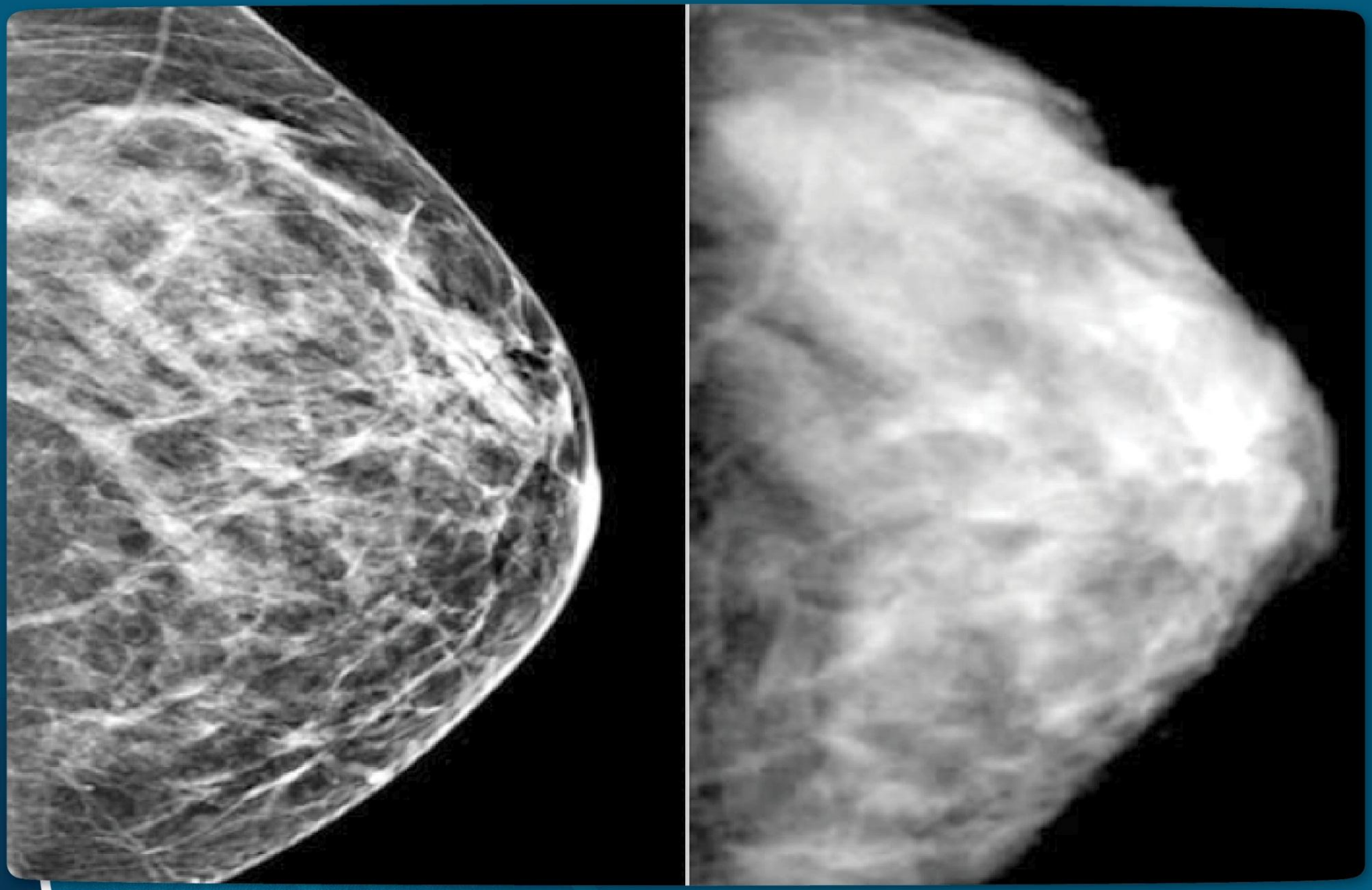



Lobules
Duct
Normal duct
Intraductal hyperplasia
Intraductal hyperplasia with atypia
Intraductal carcinoma in situ
Invasive ductal cancer

- Overall 90% accurate in detecting breast cancer.
- Approaching 98% in women over 70 but as low as 75% in women between 40-50 years.
- Only modality shown to reduce mortality from breast cancer in the screening (asymptomatic) population. Between 25-76%

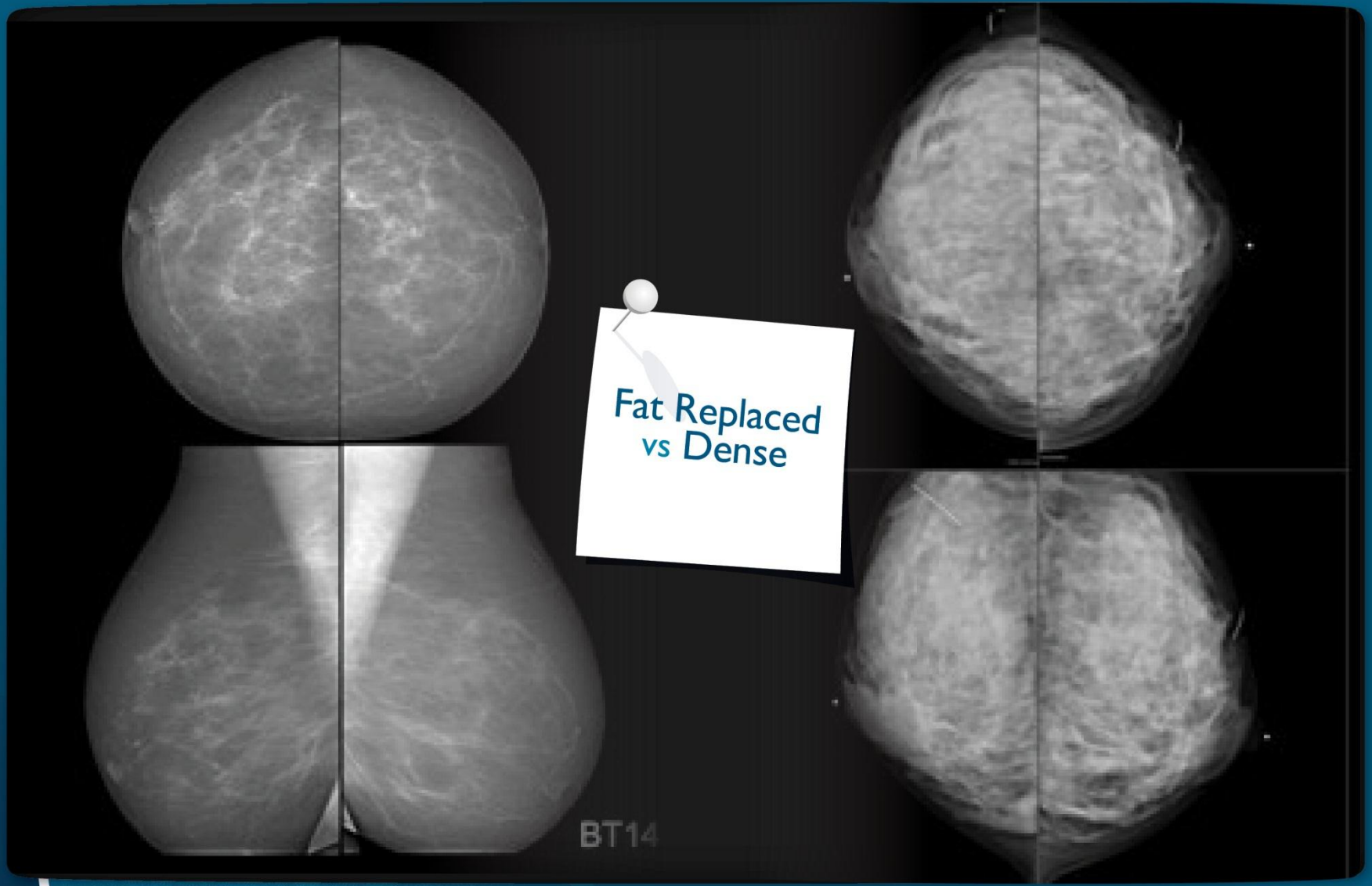
Digital Mammography

- Newer modality
- DMIST Trial-More cancers detected in pre and peri-menopausal, dense breasts and women under 50 years.
- Less radiation, less compression, easy storage.
- BSA -5 year plan for changeover.



Screening Recommendations

- BSA 45-69 years Biannual
  Population based
  Reduce cancer mortality by 20-30%
  Difficult to get > 65% attending
- ABC 40- Annual
  22% cancers 40-50
  Difficult to identify due to dense breasts
  Rapid growth requires shorter interval


Fat Replaced
vs Dense
BT14

When to stop?

- 70 years chosen arbitrarily with original screening studies
- Now health expectancy much higher
  In the 2006 Social Security Data
  - 80 years- 9.33 years left
  - 75 years- 12.5 years left
  - 90 years- 4.5 years left

We recommend mammography from 40- stop when less than 5 years of healthy life-expectancy

- "Harms":
  - Recall every 12 years
  - Negative biopsy every 149 years
  - Missed cancer every 1,000 years
    This most significant risk is reduced by more frequent screening.
  - Fatal radiation induced breast cancer every 76-97,000 years.

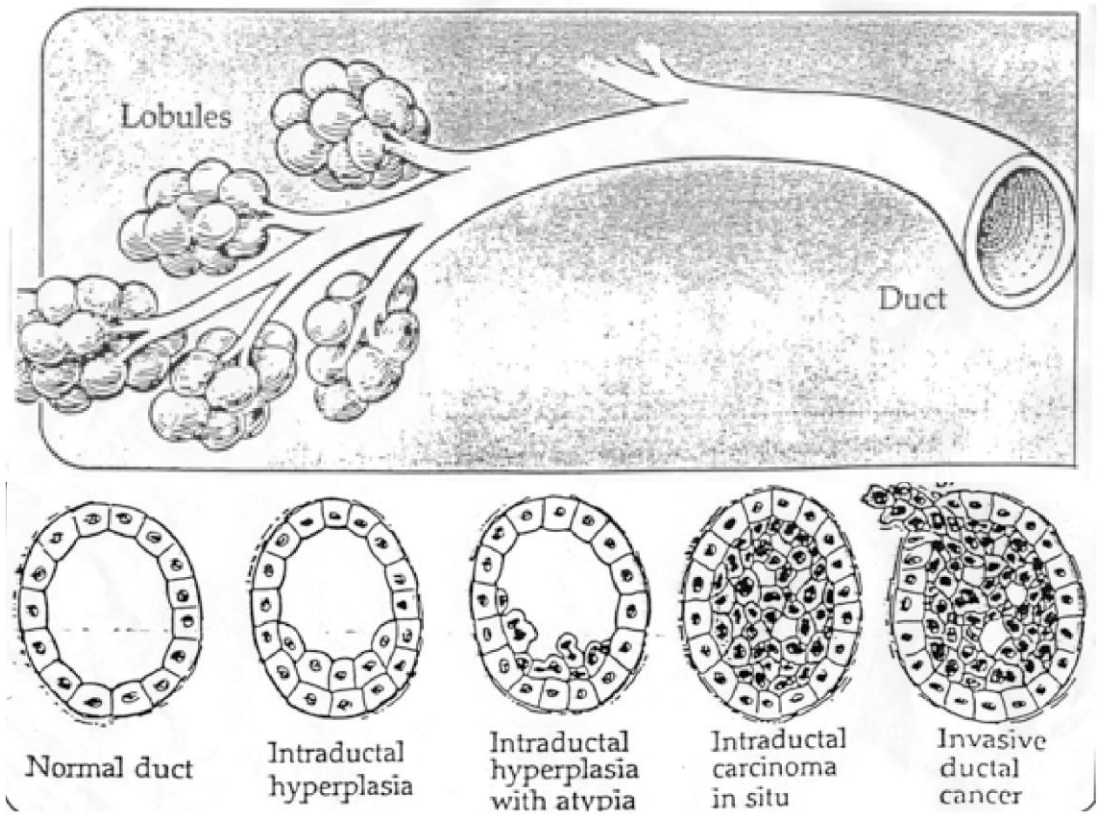
Ultrasound

Screening

- not as accurate as mammography
- in combination with mammography adds extra 1 to 2% accuracy

Used for workup of an abnormality:

- symptoms eg nodularity
- palpable lump
- mammographic density
- guided biopsy, lymph nodes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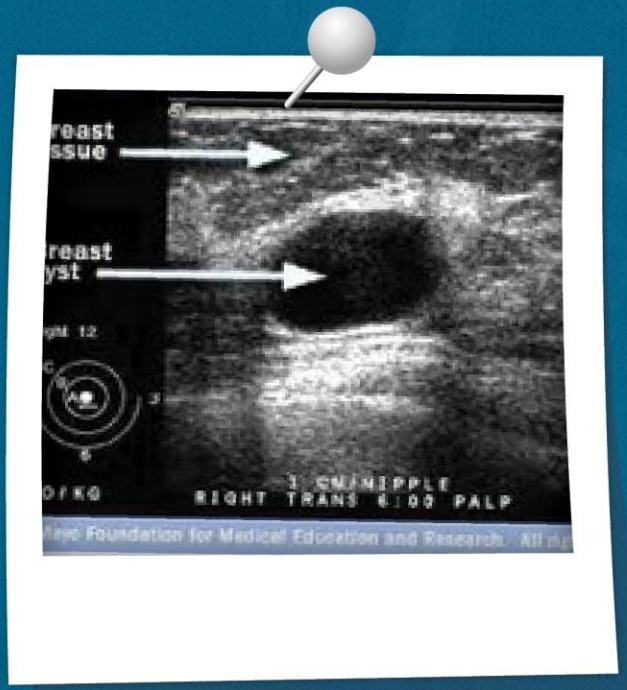
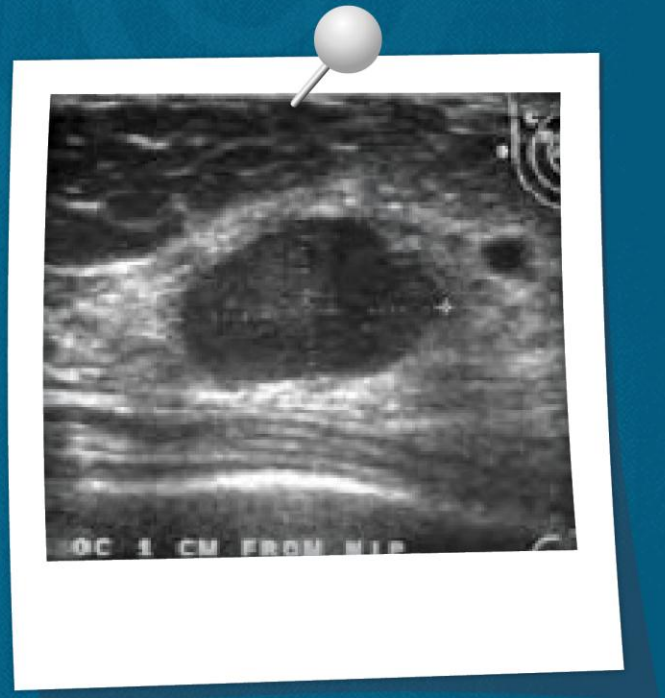
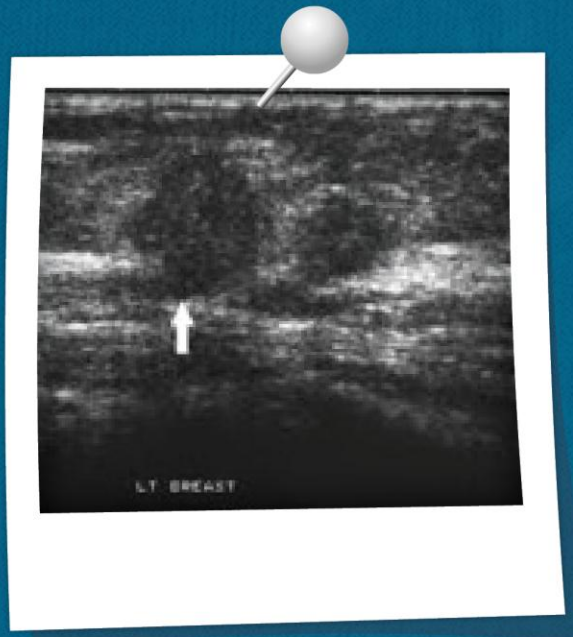
?

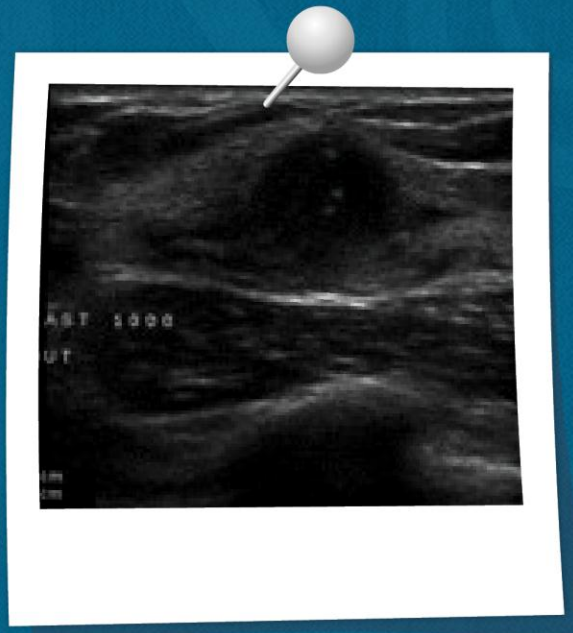
Fibroadenoma & Cyst

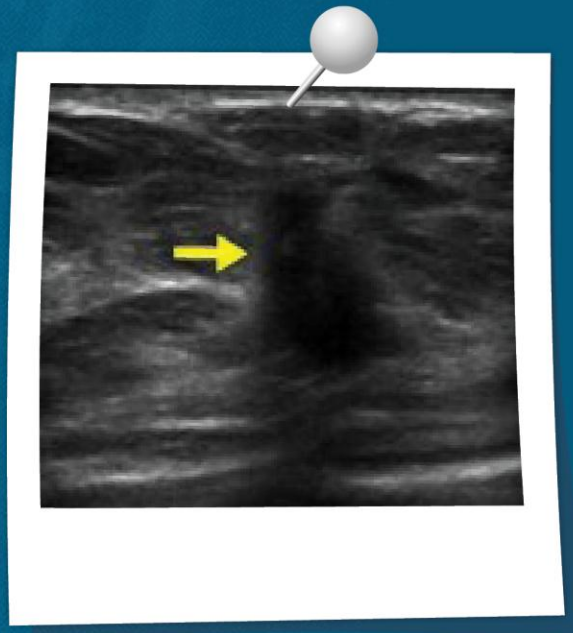




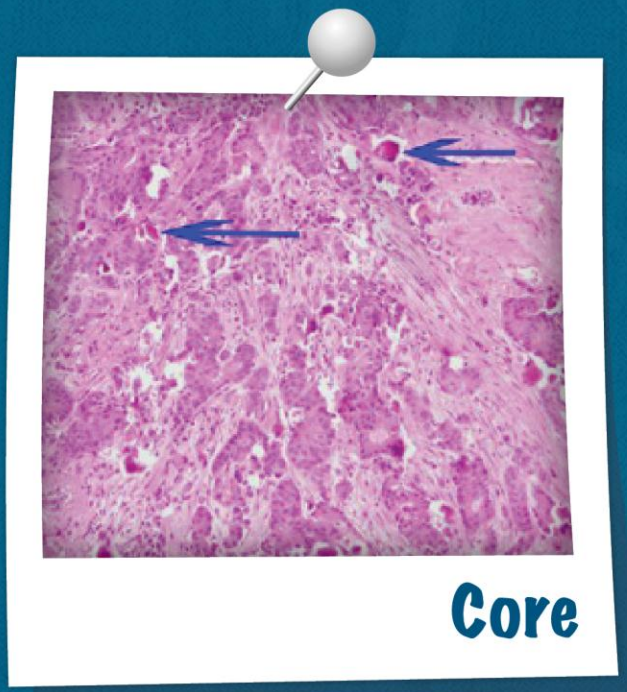
Cancer

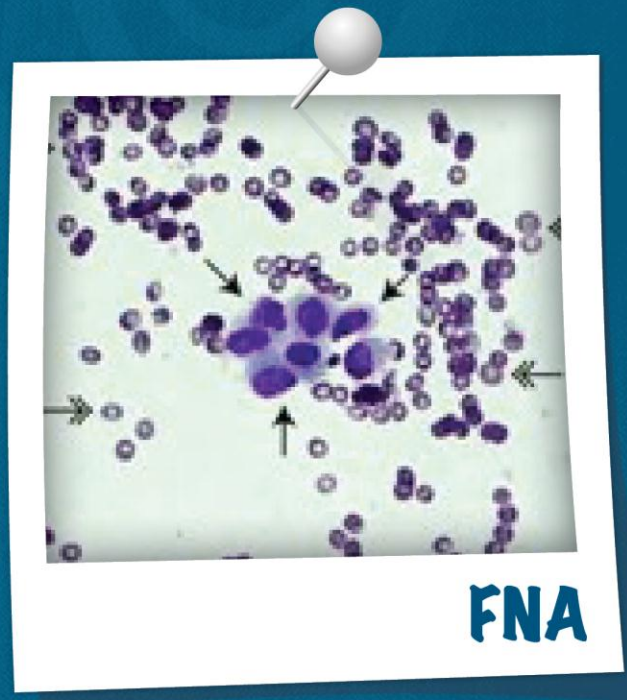




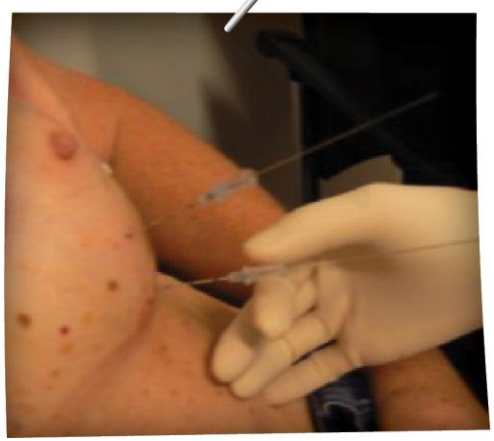


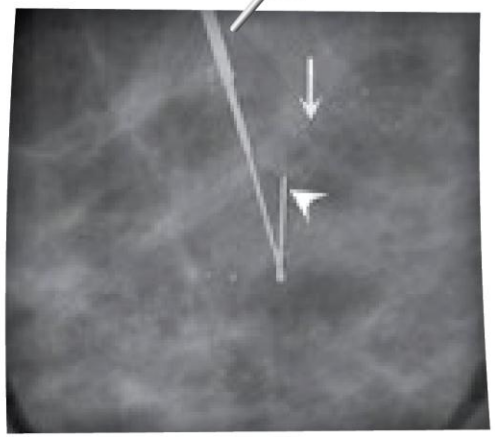
Require Tissue Diagnosis

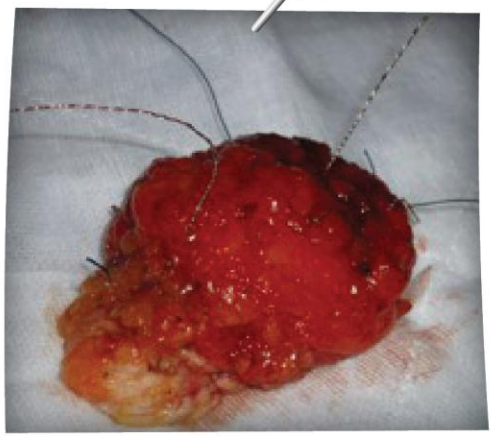




- *Hookwire Biopsy*
- *Rarely Diagnostic Excision Biopsy*



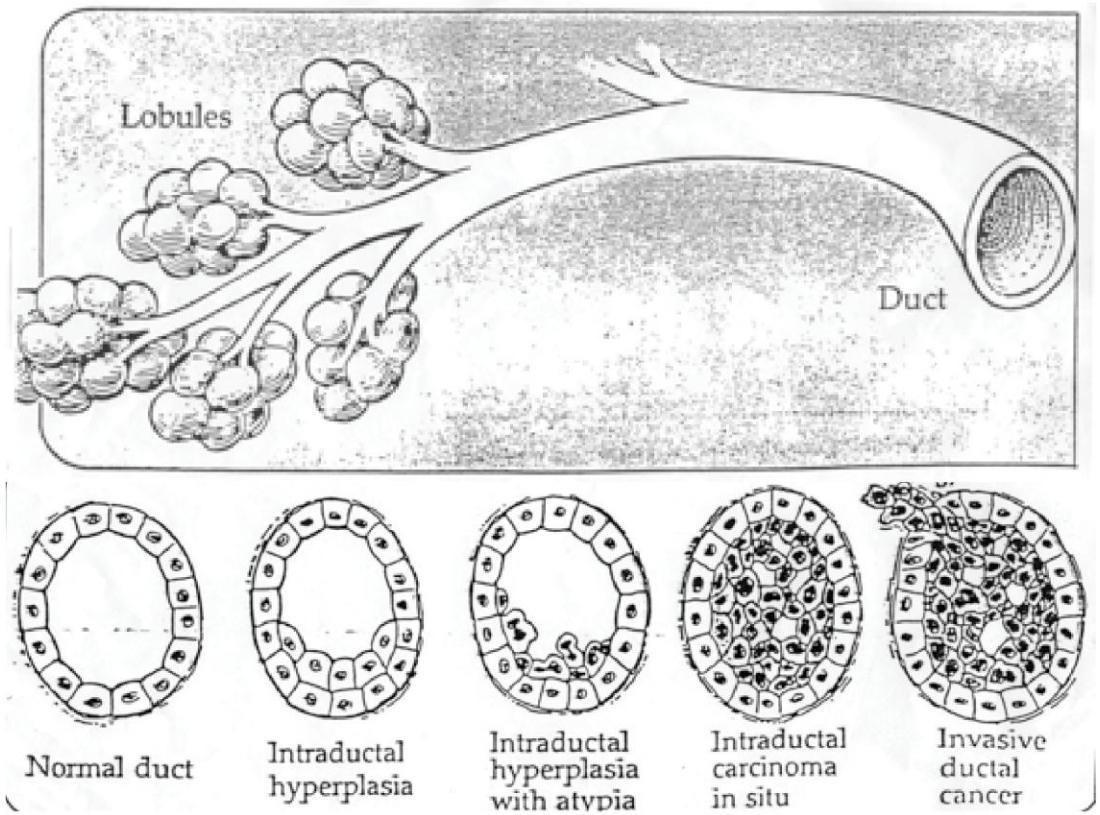




Thermography

- *"Identify thermal emissions that suggest potential risk markers only"*
- *"Provide women with an early alert of the potential problems, and with that an opportunity to look at diet lifestyle and other factors to help reduce the chances of a problem developing further"*

Clinical Thermography Website NZ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Thermography

Position Statement:

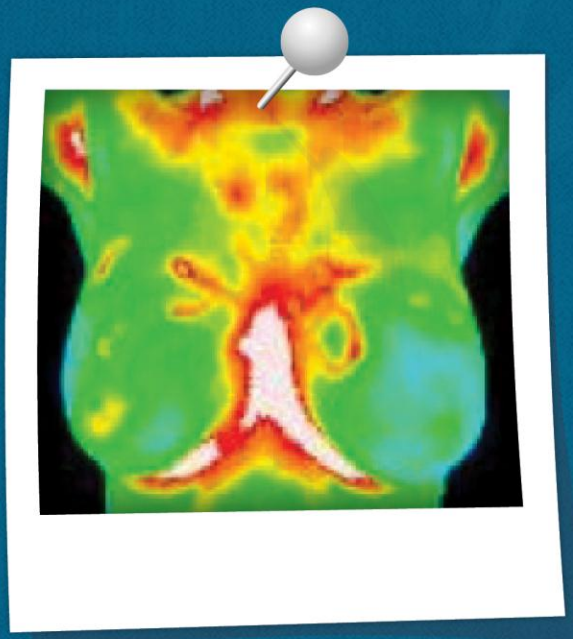
The National Screening Unit, the Cancer Society of NZ and the NZ Breast Cancer Foundation do not support the use of thermography as a breast screening or diagnostic tool as there is insufficient evidence.

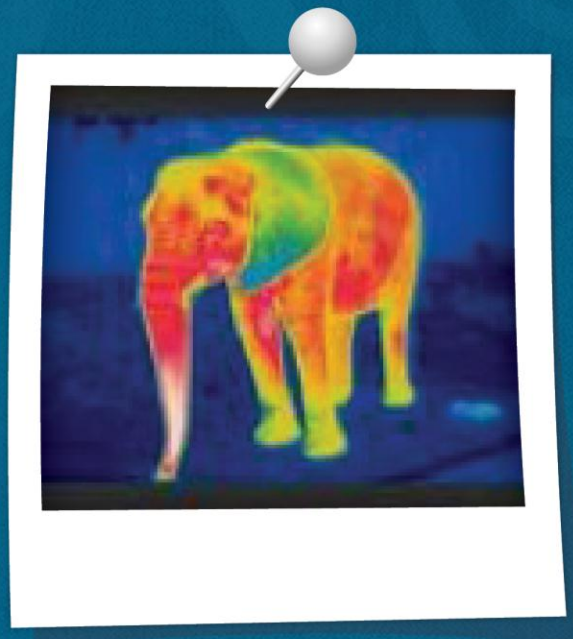
Lack of proof of efficacy and effectiveness of thermography.

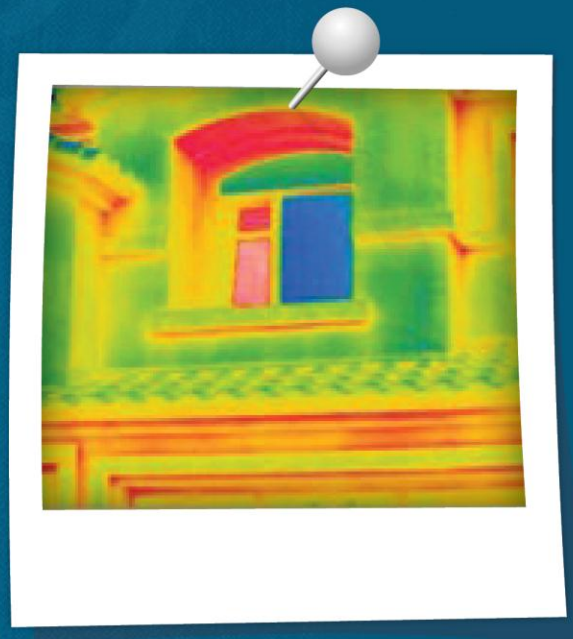
Thermography has never undergone a randomized controlled trial (RCT) or meta-analysis of RCTs.

Concern: women believing that thermography is an adequate replacement for a doctor visit or a mammogram.

Thermography

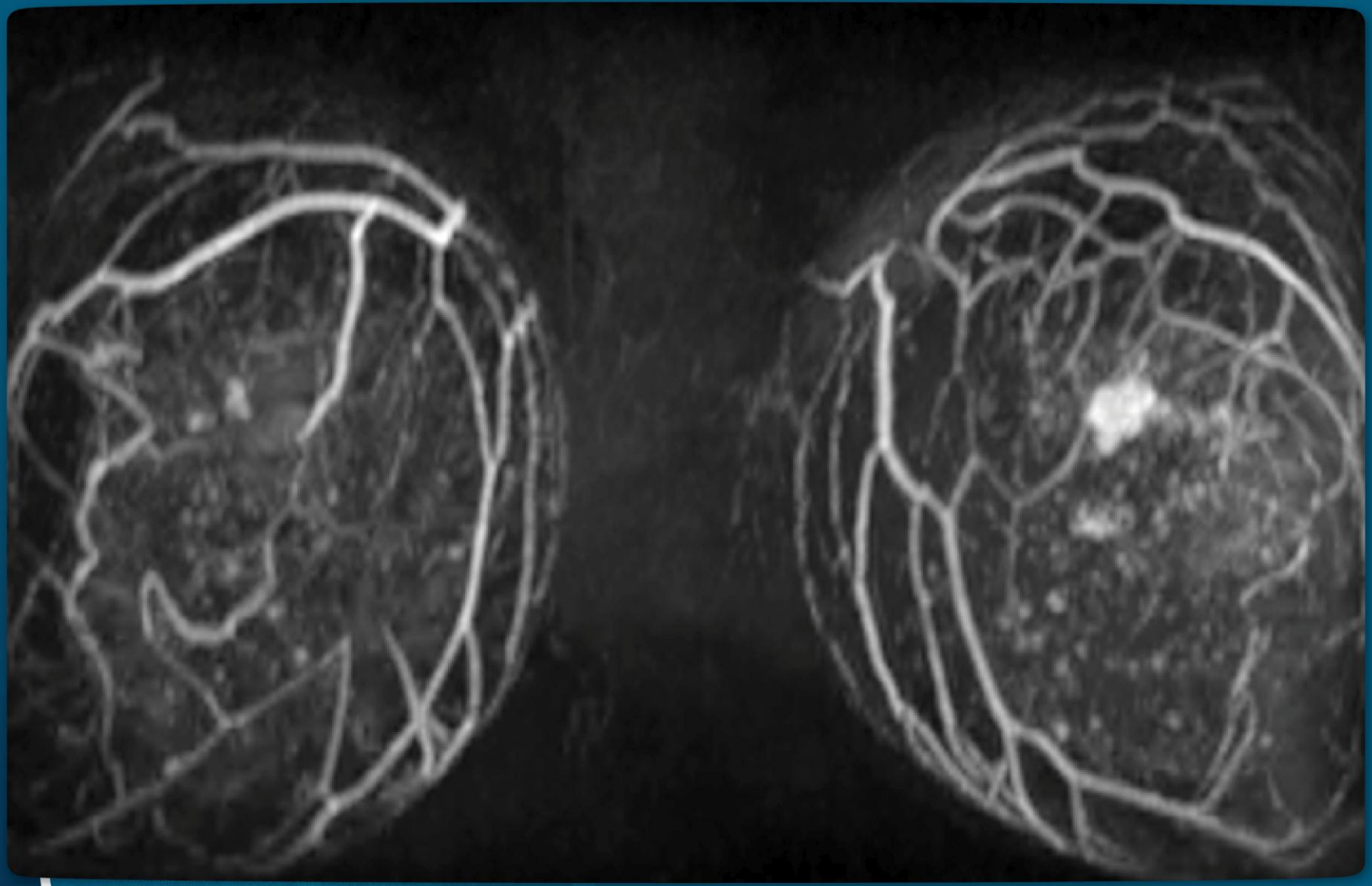


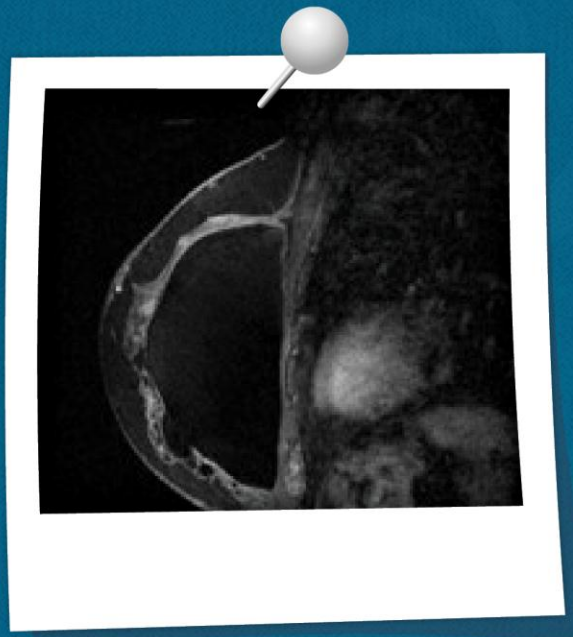


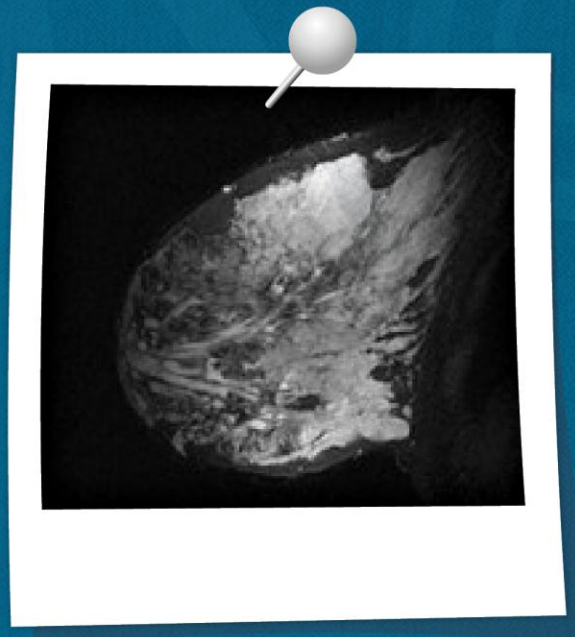


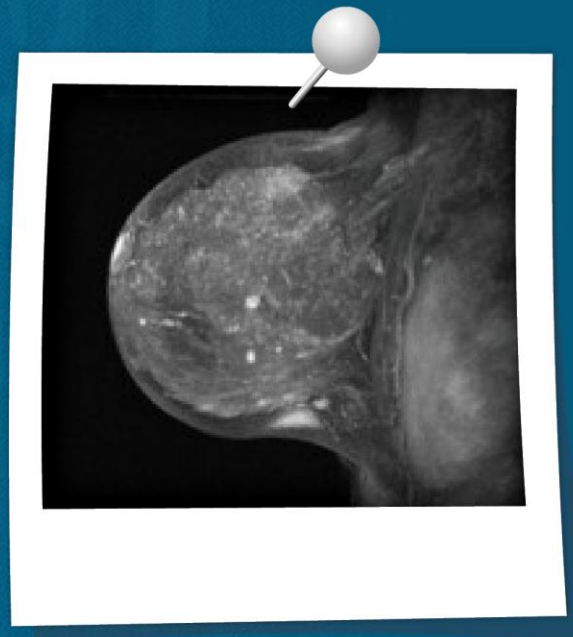
Breast MRI

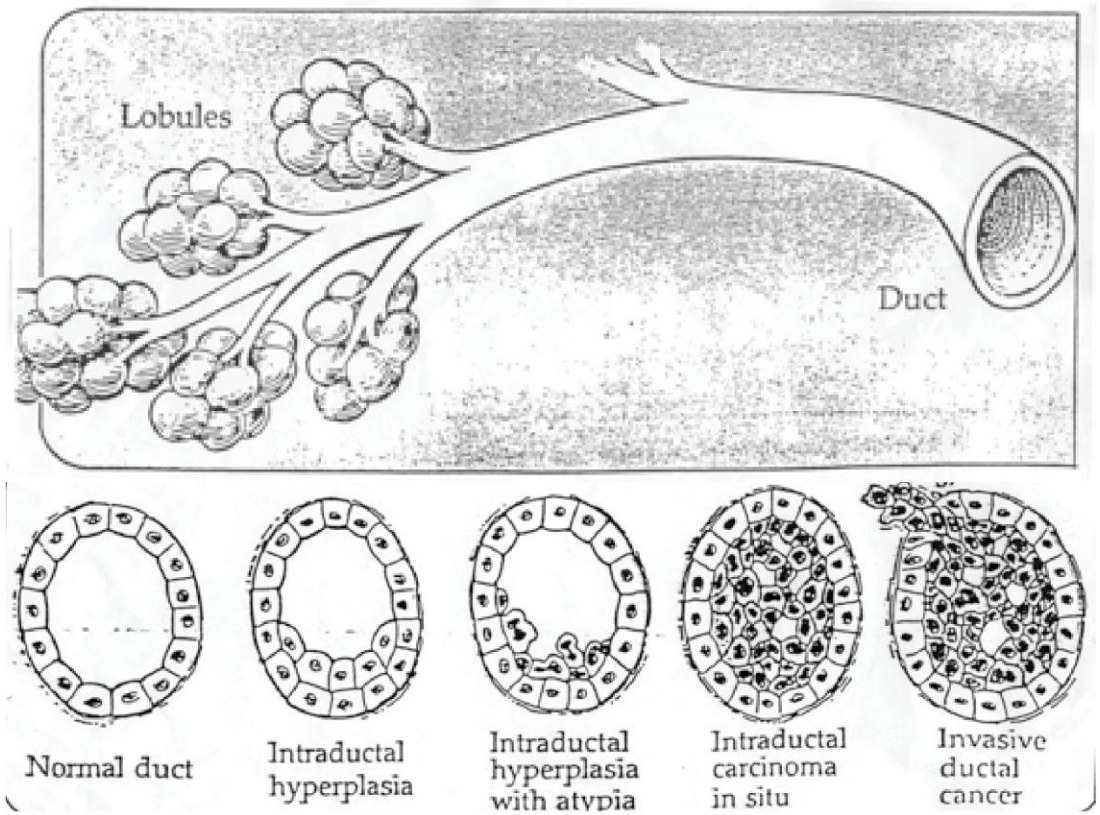
- Indications:
  - extent of disease in women with known breast cancer
  - screening for breast cancer in high risk women
  - axillary node cancer with unknown primary
  - breast implants - detection of cancer and implant integrity
- Add “chest radiation between ages 10-30”







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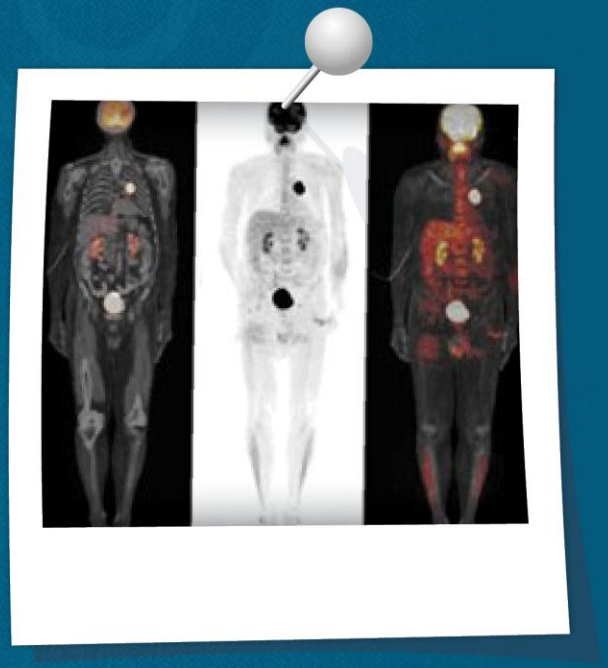
Others…..

- CT Scan- Not useful in breast disease.
- PET- CT- Very useful in staging for metastatic disease but not for information on the primary.

PET- CT Scan

- *Structural and Functional information*



Ductography

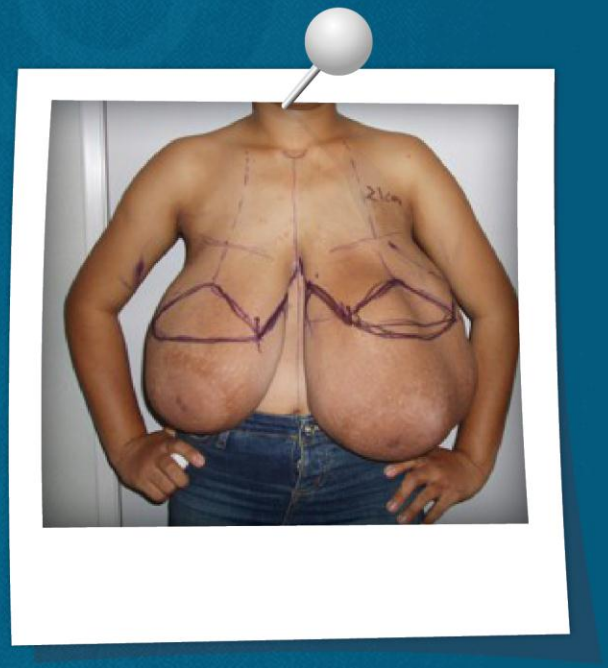
- *No indication for this barbaric procedure!*

Conclusion

- Screening Mammography is not perfect but it is the best we have at the moment.
- Choose a specialist clinic.
- Early detection saves lives.

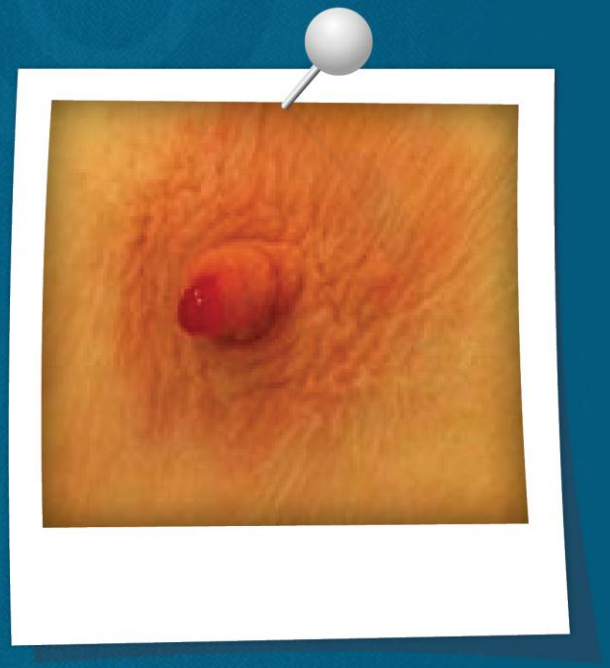
Case 1

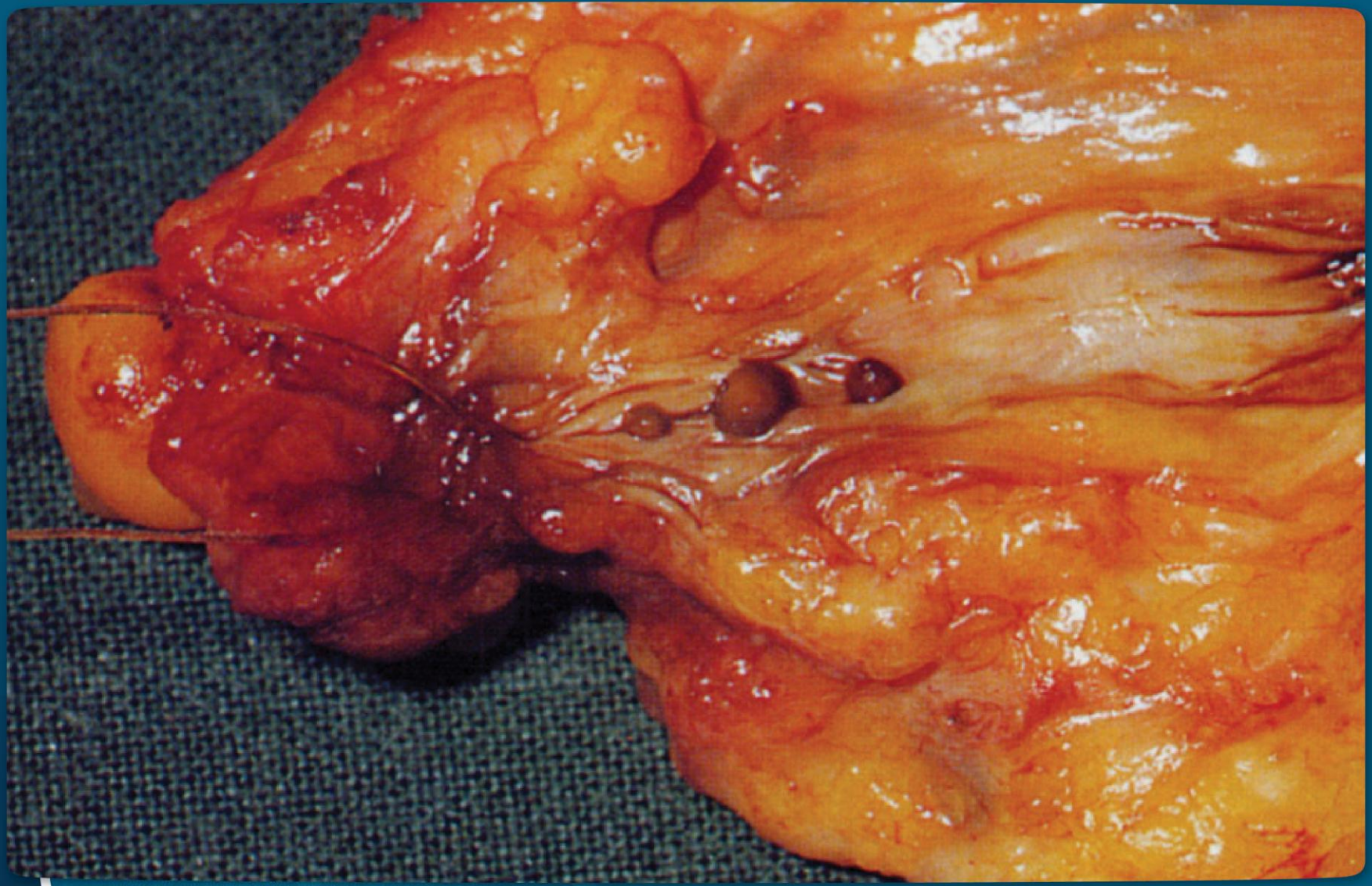
- *Fibromatosis Bilateral skin sparing mastectomy with skin reduction and implants.*

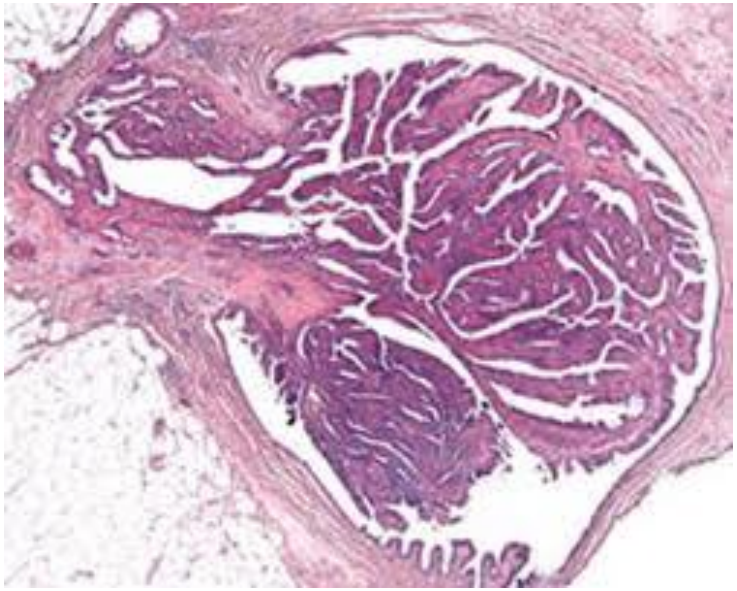


Case 2

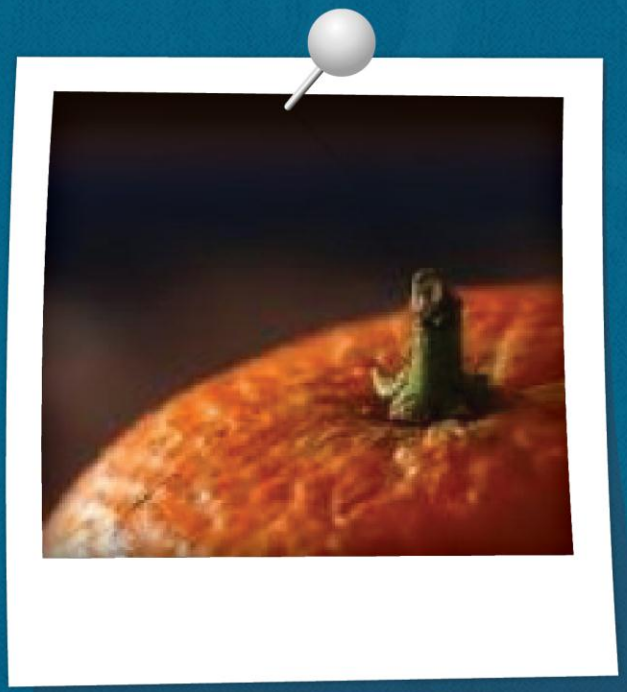
- *Nipple discharge*
  Papilloma

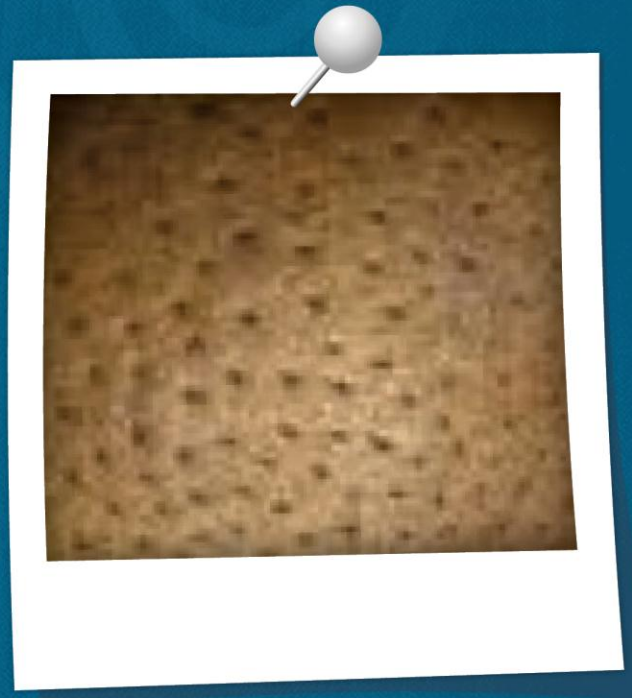






Peau d'orange





Paget's

- *Very subtle*
- *Tightening of skin/ shiny*