# Evaluating Locally Advanced Disease

# Imaging Modalities

- Ultrasound
  - Axilla
  - Ipsilateral quadrant
- Diagnostic mammography
- MRI If available

Limited

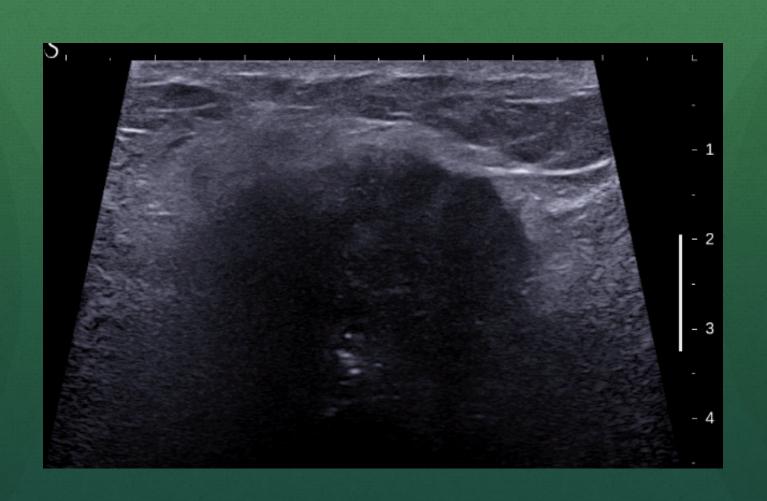
Enhanced

Maximal

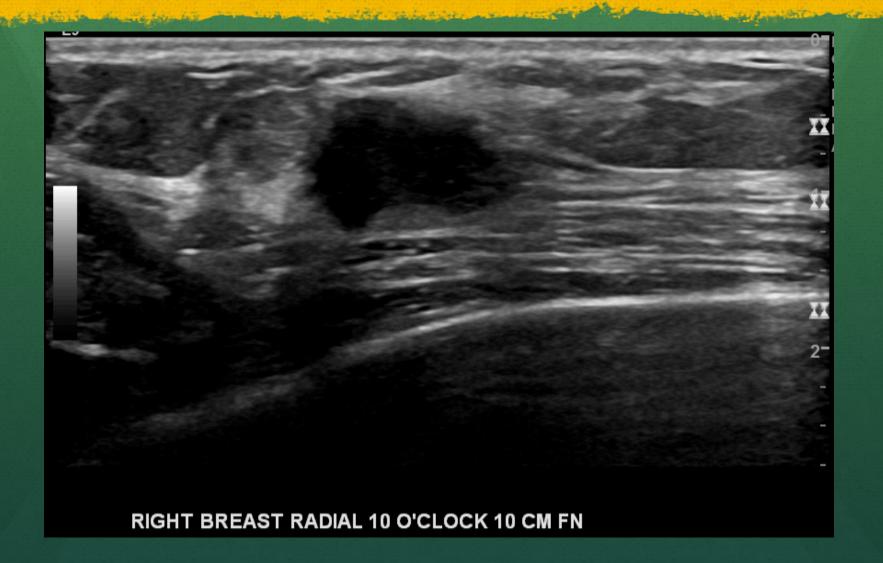
### Breast Ultrasound

- Palpable masses (+/- mammography)
- In US, initial study for palpable masses
  - Pregnant
  - Lactating
  - Less than age 40
- Cyst versus solid
- Solid masses: benign versus malignant features

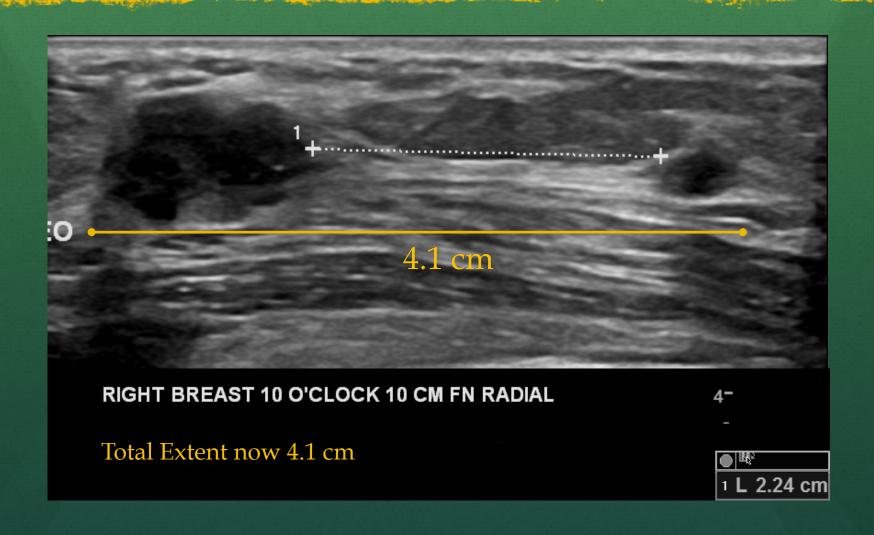
## Directed Breast Ultrasound



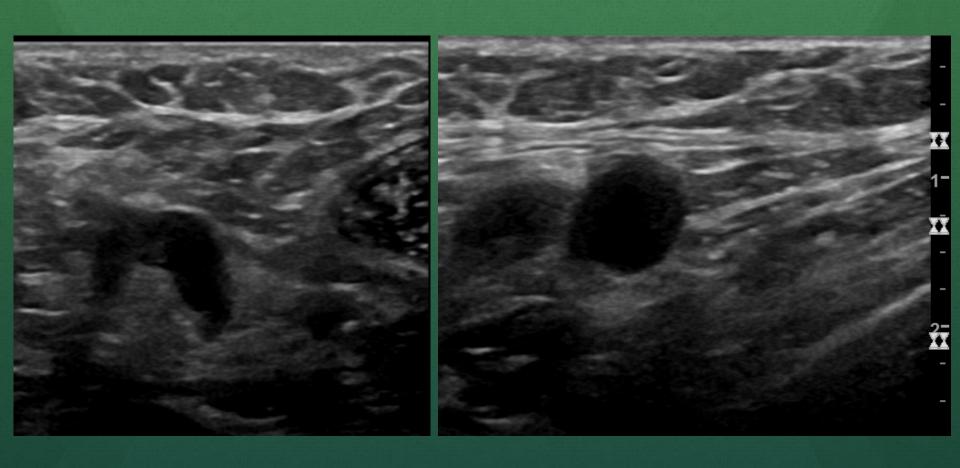
# Diagnostic Ultrasound



## Extent of Disease

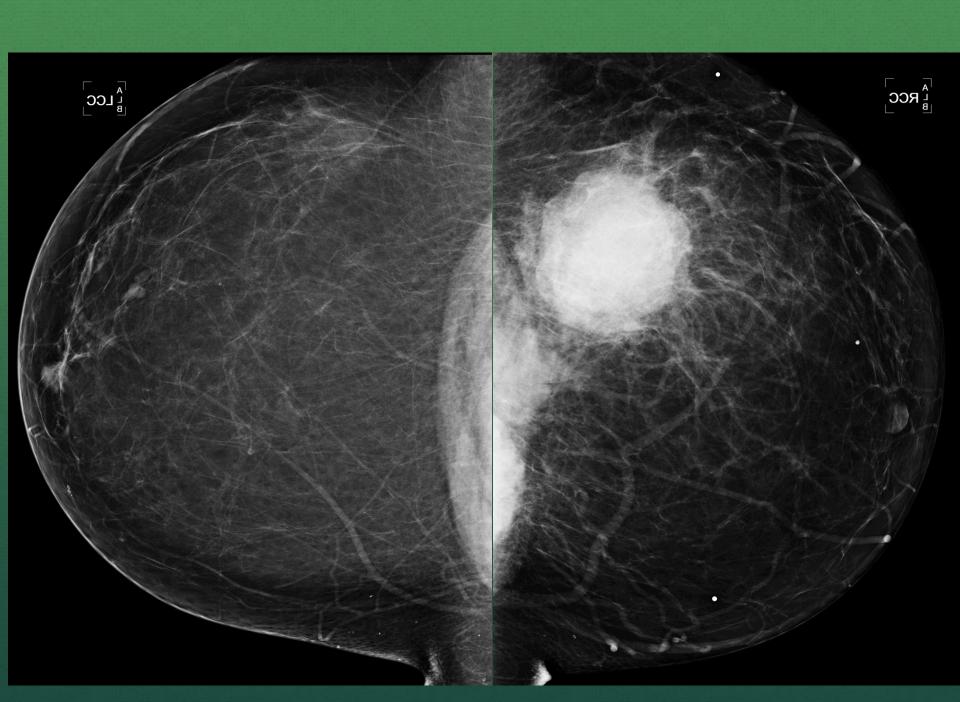


## Axilla



#### DIAGNOSTIC MAMMOGRAPHY

- Patients with breast signs or symptoms
- Patients with abnormality detected on screening mammogram
- Performed under the supervision of a radiologist
- Techniques:
  - Tailored exam using specialized views
    - Spot compression magnification mammography
  - Supplemented by targeted ultrasound

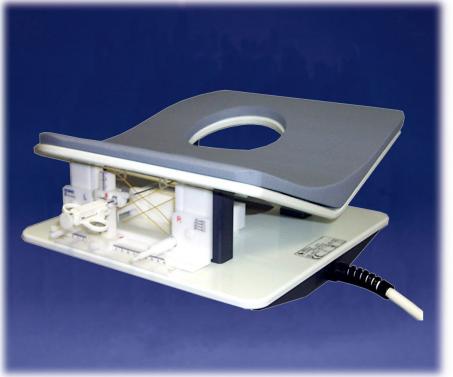


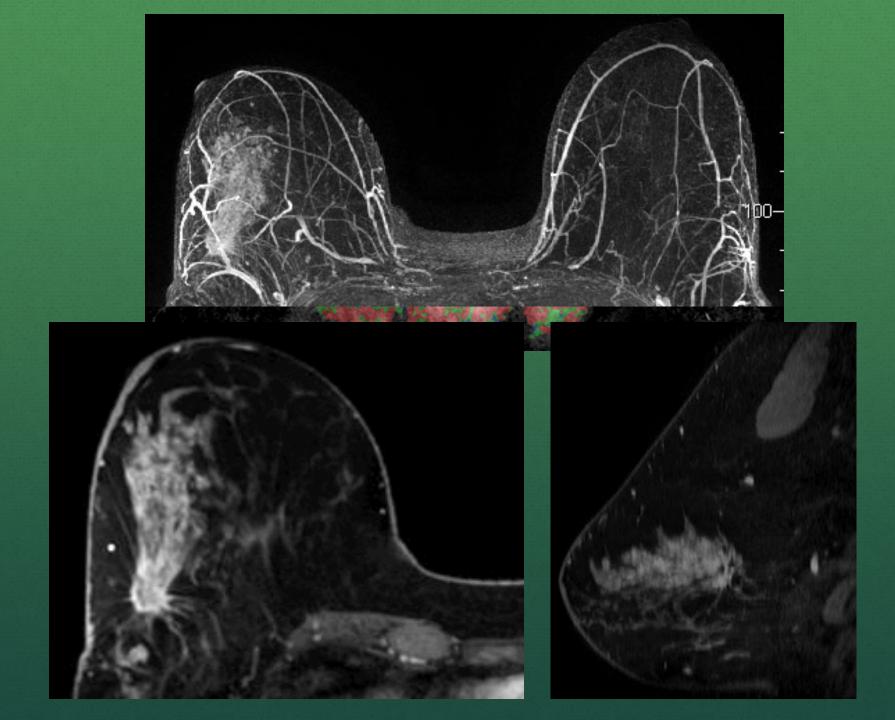


#### **Breast MRI: Indications**

- High Risk Screening
- Patients with diagnosed breast cancer
  - Extent of disease in breast with known cancer
    - Additional unsuspected disease in approximately (16%)
  - Contralateral breast screening for occult disease (4-5%)
  - Evaluation of treatment response
- Axillary metastatic adenopathy, unknown primary
  - Primary in the breast detected in approximately 60%
- Implant evaluation







#### Limitations

- Technical expertise to produce high quality images and interpret them
- Different equipment vendors and models
  - Delayed repair and maintenance
- Limited access, particularly in rural communities

## Conclusions

