### Mammography

<table>
<thead>
<tr>
<th>Tissue composition (screening only)</th>
<th>Tissue composition (survey only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The breasts are almost entirely fatty</td>
<td>a. Homogeneous background echotexture – fat</td>
</tr>
<tr>
<td>b. There are scattered areas of fibroglandular density</td>
<td>b. Homogeneous background echotexture – fibroglandular</td>
</tr>
<tr>
<td>c. The breasts are heterogeneously dense, which may obscure small masses</td>
<td>c. Heterogeneous background echotexture</td>
</tr>
<tr>
<td>d. The breasts are extremely dense, which lowers the sensitivity of mammography</td>
<td>d. Extreme fibroglandular tissue</td>
</tr>
</tbody>
</table>

### Ultrasound

<table>
<thead>
<tr>
<th>Masses</th>
<th>Masses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shape</td>
<td>Oval</td>
</tr>
<tr>
<td>Round</td>
<td>Round</td>
</tr>
<tr>
<td>Irregular</td>
<td>Irregular</td>
</tr>
<tr>
<td>Margin</td>
<td>Circumscribed</td>
</tr>
<tr>
<td>Obcused</td>
<td>Obcused</td>
</tr>
<tr>
<td>Microlobulated</td>
<td>Microlobulated</td>
</tr>
<tr>
<td>Indistinct</td>
<td>Indistinct</td>
</tr>
<tr>
<td>Spiculated</td>
<td>Spiculated</td>
</tr>
<tr>
<td>Density</td>
<td>High-density</td>
</tr>
<tr>
<td>Equal density</td>
<td>Equal density</td>
</tr>
<tr>
<td>Low density</td>
<td>Low density</td>
</tr>
<tr>
<td>Fat-containing</td>
<td>Fat-containing</td>
</tr>
</tbody>
</table>

### Calcifications

Typically benign

Skin Hyperechoic

Architectural distortion

Internal vascularity

Intramammary lymph node

Special cases

Simple cyst

Clumped microcalcifications

Complicated cyst

Mass in or on skin

Foreign body including implants

Lymph nodes – intramammary

Lymph nodes – axillary

Vascular abnormalities

Malignant disease

Post-surgical fluid collection

Fat necrosis

### Magnetic Resonance Imaging

#### Amount of Fibroglandular Tissue (FGT)

- A. Almost entirely fat
- B. Scattered fibroglandular tissue
- C. Heterogeneous fibroglandular tissue
- D. Extreme fibroglandular tissue

#### Associated features

- Nipple retraction
- Nipple inversion
- Skin thickening
- Skin invasion
- Direct invasion
- Inflammatory cancer
- Axillary adenopathy
- Postoperative seroma/hematoma

#### Clinical assessment

- A. Almost entirely fat
  - Low enhancement
  - Irregular contour
  - Delayed phase: Ruptured

- B. Scattered fibroglandular tissue
  - Moderate enhancement
  - Irregular contour
  - Delayed phase: Intact

- C. Heterogeneous fibroglandular tissue
  - High enhancement
  - Irregular contour
  - Delayed phase: Ruptured

- D. Extreme fibroglandular tissue
  - Very high enhancement
  - Irregular contour
  - Delayed phase: Ruptured

### BI-RADS® Assessment Categories

#### Category 0: Mammography
- Incomplete – Need Additional Imaging Evaluation and/or Prior Mammograms for Comparison

#### Category 1: Negative

#### Category 2: Benign

#### Category 3: Probably Benign

#### Category 4: Suspicious

#### Category 4A: Low suspicion for malignancy

#### Category 4B: Moderate suspicion for malignancy

#### Category 4C: High suspicion for malignancy

#### Category 5: Very High suspicion for malignancy

#### Category 6: Known biopsy Proven Malignancy

For the complete Atlas, visit acr.org/birads