Round Calcifications

- Vary in Size
- When Under 0.5 mm: “Punctate”
- Scattered are Considered Benign
Round Calcifications

- Grouped Round Calcifications
  - May need close follow-up (BI-RADS 3) if:
    Isolated groups and
    No prior mammography
  - May need biopsy (BI-RADS 4A) if:
    New
    Increasing
    Linear or segmental
    Adjacent to known cancer
BI-RADS 2, 3, or 4?
Calcifications and Other Lesions Detected at Screening:
Should Never be Reported as BI-RADS 3 Without Diagnostic Imaging Work-up

- Usually mag views for calcifications
- Provides better baseline for follow-up
- May change BI-RADS 3 to BI-RADS 2 or BI-RADS 4
- More prompt identification of truly benign findings
## Probably Benign (BI-RADS 3) Calcifications:

### Follow-up Intervals / Assessment Coding

<table>
<thead>
<tr>
<th>Examination</th>
<th>Month</th>
<th>BI-RADS</th>
</tr>
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<tbody>
<tr>
<td>Initial Screening</td>
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<td>0</td>
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<tr>
<td>Unilateral diagnostic</td>
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<tr>
<td>Short-term unilateral ff-up</td>
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<td>3</td>
</tr>
<tr>
<td>Bilateral</td>
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<td>3</td>
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<tr>
<td>Bilateral</td>
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<td>2 or 3</td>
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<tr>
<td>Bilateral</td>
<td>36</td>
<td>2</td>
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</table>
Round Calcifications

- Formed in Acini of Lobules
- Usually Benign Adenosis when under 1 mm
- Adenosis Calcifications may also be Irregular or Amorphous
Adenosis
Should Benign Calcifications Always Be Reported?

- No!
- Not if you are concerned that the clinician or patient might infer malignancy.
• If benign calcifications are observed but not reported, should be read as BI-RADS 1, not BI-RADS 2.

• Studies reported as BI-RADS 2 must describe the lesion(s)
“Suspicious Morphology”
Calcifications

- Coarse heterogeneous
- Amorphous
- Fine pleomorphic
- Fine linear or fine linear branching
Coarse Heterogeneous Calcifications

• Irregular and Conspicuous

• Generally 0.5 to 1.0 mm

• Smaller than Dystrophic Calcifications
Coarse Heterogeneous Calcifications

• Usually Benign:
  Fibrosis, Fibroadenoma,
  Fat necrosis, Evolving Dystrophic

• About 15% of Solitary Groups are Malignant (BI-RADS 4B)

• Distribution is Key
Grouped Coarse Heterogeneous Calcifications

Core Biopsy:  Fat Necrosis
Grouped Coarse Heterogeneous Calcifications

Core Biopsy: Fibroadenomatous Change
Amorphous Calcifications

- Small and/or Hazy
  More specific particle shape cannot be determined
- Bilateral diffuse distribution usually may be dismissed as benign
- Formerly called either “Amorphous” or “Indistinct”
Amorphous Calcifications

• Grouped, Linear, Segmental distributions generally need biopsy

• Among those that need biopsy, about 20% are malignant (BI-RADS 4B)
Amorphous and Coarse Heterogeneous Calcifications: Management Based on Distribution

• Bilateral and/or Diffuse are Benign or Probably Benign
  Baseline Magnification Views may help

• May Need Biopsy if:
  Grouped, Linear, Segmental, or Regional
  Multiple Groups in One Breast Only
What’s New in BI-RADS 5th Edition

• “Intermediate Concern” category dropped

• “Amorphous” and “Coarse Heterogeneous” moved into “Suspicious Morphology” category
Fine Pleomorphic Calcifications

- More Conspicuous than Amorphous Forms
- Discrete Shapes
- Irregular Margins
- Vary in Size and Shape
- Usually Smaller than 0.5 mm
- About 30% of biopsies are malignant (BI-RADS 4B)
Fine Pleomorphic

Core Biopsy: DCIS