



MAMMOGRAPHY

Breast composition	<p>a. The breasts are almost entirely fatty</p> <p>b. There are scattered areas of fibroglandular density</p> <p>c. The breasts are heterogeneously dense, which may obscure small masses</p> <p>d. The breasts are extremely dense, which lowers the sensitivity of mammography</p>	
Masses	Shape	<p>Oval</p> <p>Round</p> <p>Irregular</p>
	Margin	<p>Circumscribed</p> <p>Obscured</p> <p>Microlobulated</p> <p>Indistinct</p> <p>Spiculated</p>
	Density	<p>High density</p> <p>Equal density</p> <p>Low density</p> <p>Fat-containing</p>
Calcifications	Typically benign	<p>Skin</p> <p>Vascular</p> <p>Coarse or "popcorn-like"</p> <p>Large rod-like</p> <p>Round</p> <p>Rim</p> <p>Dystrophic</p> <p>Milk of calcium</p> <p>Suture</p>
	Suspicious morphology	<p>Amorphous</p> <p>Coarse heterogeneous</p> <p>Fine pleomorphic</p> <p>Fine linear or fine-linear branching</p>
	Distribution	<p>Diffuse</p> <p>Regional</p> <p>Grouped</p> <p>Linear</p> <p>Segmental</p>
Architectural distortion		
Asymmetries	Asymmetry	
	Global asymmetry	
	Focal asymmetry	
	Developing asymmetry	
Intramammary lymph node		
Skin lesion		
Solitary dilated duct		
Associated features	Skin retraction	
	Nipple retraction	
	Skin thickening	
	Trabecular thickening	
	Axillary adenopathy	
	Architectural distortion	
	Calcifications	
Location of lesion	Laterality	
	Quadrant and clock face	
	Depth	
	Distance from the nipple	

ULTRASOUND

Tissue composition (screening only)	<p>a. Homogeneous background echotexture – fat</p> <p>b. Homogeneous background echotexture – fibroglandular</p> <p>c. Heterogeneous background echotexture</p>	
Masses	Shape	<p>Oval</p> <p>Round</p> <p>Irregular</p>
	Orientation	<p>Parallel</p> <p>Not parallel</p>
	Margin	<p>Circumscribed</p> <p>Not circumscribed</p> <ul style="list-style-type: none"> - Indistinct - Angular - Microlobulated - Spiculated
	Echo pattern	<p>Anechoic</p> <p>Hyperechoic</p> <p>Complex cystic and solid</p> <p>Hypoechoic</p> <p>Isoechoic</p> <p>Heterogeneous</p>
	Posterior features	<p>No posterior features</p> <p>Enhancement</p> <p>Shadowing</p> <p>Combined pattern</p>
Calcifications	Calcifications in a mass	
	Calcifications outside of a mass	
	Intraductal calcifications	
Associated features	Architectural distortion	
	Duct changes	
	Skin changes	<p>Skin thickening</p> <p>Skin retraction</p>
	Edema	
	Vascularity	<p>Absent</p> <p>Internal vascularity</p> <p>Vessels in rim</p>
Elasticity assessment	Soft	
	Intermediate	
	Hard	
Special cases	Simple cyst	
	Clustered microcysts	
	Complicated cyst	
	Mass in or on skin	
	Foreign body including implants	
	Lymph nodes – intramammary	
	Lymph nodes – axillary	
	Vascular abnormalities	<p>AVMs (arteriovenous malformations/pseudoaneurysms)</p> <p>Mondor disease</p>
	Postsurgical 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		
Background parenchymal enhancement (BPE)	Level	Minimal		Nipple invasion		
		Mild		Skin retraction		
		Moderate		Skin thickening		
	Marked	Skin invasion		Direct invasion	Inflammatory cancer	
Symmetric or asymmetric	Symmetric	Symmetric		Axillary adenopathy		
		Asymmetric		Pectoralis muscle invasion		
Focus				Fat containing lesions	Chest wall invasion	
Masses	Shape	Oval			Architectural distortion	
		Round			Lymph nodes	Normal
		Irregular	Abnormal			
	Margin	Circumscribed	Fat necrosis			
Internal enhancement characteristics	Not circumscribed	- Irregular	Hamartoma			
		- Spiculated	Postoperative seroma/hematoma with fat			
		Location of lesion	Location			
Non-mass enhancement (NME)	Distribution	Focal	Kinetic curve assessment Signal intensity (SI)/time curve description		Initial phase	Slow
		Linear			Medium	
		Segmental		Fast		
		Regional		Delayed phase	Persistent	
Internal enhancement patterns	Multiple regions	Homogeneous	Implants	Implant material and lumen type		
		Heterogeneous		Saline		
		Rim enhancement		Silicone		
		Dark internal septations		- Intact		
Intramammary lymph node	Diffuse	Homogeneous	- Ruptured			
		Heterogeneous	Other implant material			
		Clumped	Lumen type			
		Clustered ring	Implant location	Retroglandular	Retropectoral	
Skin lesion	Non-enhancing findings	Ductal precontrast high signal on T1W	Abnormal implant contour	Focal bulge		
		Cyst		Intracapsular silicone findings		
		Postoperative collections (hematoma/seroma)		Radial folds		
		Post-therapy skin thickening and trabecular thickening		Subcapsular line		
		Non-enhancing mass		Keyhole sign (teardrop, noose)		
		Architectural distortion		Linguine sign		
		Signal void from foreign bodies, clips, etc.		Extracapsular silicone	Breast	Lymph nodes
Water droplets			Peri-implant fluid			

BI-RADS® ASSESSMENT CATEGORIES

Category 0: Mammography: Incomplete – Need Additional Imaging Evaluation and/or Prior Mammograms for Comparison
Ultrasound & MRI: Incomplete – Need Additional Imaging Evaluation

Category 1: Negative

Category 2: Benign

Category 3: Probably Benign

Category 4: Suspicious

Mammography & Ultrasound:	Category 4A: Low suspicion for malignancy
	Category 4B: Moderate suspicion for malignancy
	Category 4C: High suspicion for malignancy

Category 5: Highly Suggestive of Malignancy

Category 6: Known Biopsy-Proven Malignancy