



ULTRASOUND

Tissue composition (screening only)	a. Homogeneous background echotexture – fat b. Homogeneous background echotexture – fibroglandular c. Heterogeneous background echotexture	
Masses	Shape	Oval Round Irregular
	Orientation	Parallel Not parallel
	Margin	Circumscribed Not circumscribed - Indistinct - Angular - Microlobulated - Spiculated
	Echo pattern	Anechoic Hyperechoic Complex cystic and solid Hypoechoic Isoechoic Heterogeneous
	Posterior features	No posterior features Enhancement Shadowing Combined pattern
Calcifications	Calcifications in a mass	
	Calcifications outside of a mass	
	Intraductal calcifications	
Associated features	Architectural distortion	
	Duct changes	
	Skin changes	Skin thickening Skin retraction
	Edema	
	Vascularity	Absent Internal vascularity Vessels in rim
	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	AVMs (arteriovenous malformations/pseudoaneurysms) Mondor disease
	Postsurgical fluid collection	
	Fat necrosis	



MAMMOGRAPHY

Breast composition	a. The breasts are almost entirely fatty b. There are scattered areas of fibroglandular density c. The breasts are heterogeneously dense, which may obscure small masses d. The breasts are extremely dense, which lowers the sensitivity of mammography	
Masses	Shape	Oval Round Irregular
	Margin	Circumscribed Obscured Microlobulated Indistinct Spiculated
	Density	High density Equal density Low density Fat-containing
	Calcifications	Typically benign
Suspicious morphology		Amorphous Coarse heterogeneous Fine pleomorphic Fine linear or fine-linear branching
		Distribution
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	



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	
Symmetric or asymmetric	Symmetric	Marked		Skin invasion	Direct invasion
		Asymmetric		Inflammatory cancer	
Focus	Shape	Oval		Axillary adenopathy	
		Round		Pectoralis muscle invasion	
Masses	Margin	Circumscribed		Chest wall invasion	
		Not circumscribed		Architectural distortion	
		- Irregular - Spiculated			
	Internal enhancement characteristics	Homogeneous	Fat containing lesions	Lymph nodes	Normal
		Heterogeneous		Abnormal	
		Rim enhancement Dark internal septations	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		
	Internal enhancement patterns	Regional	Delayed phase	Persistent	
		Multiple regions		Plateau	
		Diffuse	Washout		
Intramammary lymph node Skin lesion	Implants	Homogeneous	Implant material and lumen type	Saline	
		Heterogeneous		Silicone	- Intact - Ruptured
		Clumped		Other implant material	
	Non-enhancing findings	Implants	Clustered ring	Lumen type	- Single - Double - Other
			Ductal precontrast high signal on T1W	Implant location	Retroglandular Retropectoral
			Cyst	Abnormal implant contour	Focal bulge
Non-enhancing findings	Implants	Postoperative collections (hematoma/seroma)	Intracapsular silicone findings	Radial folds	
		Post-therapy skin thickening and trabecular thickening		Subcapsular line	
		Non-enhancing mass		Keyhole sign (teardrop, noose)	
	Non-enhancing findings	Implants	Architectural distortion	Extracapsular silicone	Breast
			Signal void from foreign bodies, clips, etc.		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