ACR BI-RADS® v2025 Manual - What's New?

The illustrated BI-RADS® v2025 Manual is an extension of the Fifth Edition of the BI-RADS® Atlas and is the culmination of years of collaborative efforts between the subsection heads and their committees, the American College of Radiology, and, importantly, input from users of these lexicons. It is designed for everyday practice and should make it possible to issue unambiguous breast imaging reports and meaningfully evaluate our performance. The BI-RADS v2025, like its predecessor, includes sections on Mammography, Ultrasound, Magnetic Resonance Imaging and Audit and Outcomes Monitoring (renamed for this version) but now includes Contrast Enhanced Mammography (CEM) as an intrinsic section rather than a supplement.

Because of the extensive updates in v2025, the following table has been developed to aid those familiar with the Fifth Edition by organizing and summarizing the major revisions. The side-by-side comparison provides a handy frame of reference between the old and new. The most significant changes are presented below; however, minor changes have been omitted. Note that findings from the lexicon sections are presented as: ***Finding/Sub-finding/Descriptor*** where appropriate.

Chapter	2013 BI-RADS® Atlas (5th Edition)	ACR BI-RADS® v2025
General	696 pages	896 pages
	763 clinical images, the vast majority are new (no more line drawings of clinical images)	923 clinical images, the vast majority are new with additional modalities included (DBT, synthetic mammography, ABUS, etc.)
	5th Edition	v2025. Versioning system changed from edition numbering to year of publication to align with broader ACR RADS® program
	BIRADS® Atlas	BIRADS® Manual (name changed from Atlas to Manual to reflect extent and variety of content)
	All modality sections reorganized to be consistent with each other, as applicable	All modality sections reorganized to be consistent with each other, as applicable
	All lexicon terms and definitions revised to be consistent across modalities, as applicable	Some lexicon terms and definitions additionally revised to be consistent across modalities, as applicable
	Not in previous version	Lexicon terms are reordered from least to most suspicious, where practical
	Report Organization is standardized across all modalities, as applicable	Report Organization sections are harmonized across all modalities and updated to include standardized Structured Exam Indication verbiage to be used across all modalities.
	BI-RADS 0: Incomplete assessment wording: "Category 0: Incomplete — Need Additional Imaging Evaluation and/or Prior Imaging for Comparison"	BI-RADS 0: Incomplete assessment categories are updated across sections to reflect 2024 FDA MQSA amendments and now include: "Category 0: Incomplete: Need Additional Imaging Evaluation" and "Category 0: Incomplete: Need Prior Imaging for Comparison"
	Category 6: Known Biopsy-Proven Malignancy management: "Surgical excision when clinically appropriate"	Category 6: Known Biopsy-Proven Malignancy management: "Clinical follow-up with surgeon and/or oncologist, and definitive local therapy (usually surgery) when clinically appropriate" Revised in recognition of emerging definitive therapies that may not involve surgical excision

Chapter	2013 BI-RADS® Atlas (5th Edition)	ACR BI-RADS® v2025
	Each modality section, as well as Follow-up and Outcome Monitoring section, includes FAQs in the Guidance subsection	Dedicated FAQ sections. General FAQ section added to address questions that cover multiple modalities
	eBook version available (spring 2014)	Both print and enhanced interactive eBook version are available
Mammography	Not in previous version	Updates to the 2024 Food and Drug Administration (FDA) breast density requirements are described as is the 2025 FDA alternate standard that allows breast density reporting to use singular phrasing when reporting unilateral mammograms
	No more line drawings; all clinical images were obtained on digital equipment	In addition to standard digital mammogram (DM) images, digital breast tomosynthesis (DBT) and synthetic mammogram (SM) examples are included
	A mass must be seen on 2 views to fulfill the definition	All the requirements used to define a mass may be apparent on a single projection when imaged on DBT
	Masses/margin/microlobulated	Masses/margin/microlobulated is removed as a margin selection to avoid confusion with the shape term lobulated. A microlobulated margin should now be described as indistinct
	Masses/shape/lobular eliminated (to prevent confusion with Masses/Margin/Microlobulated)	Masses/shape/lobulated is returned to the lexicon to allow added nuance in describing mass shape. Lobular (term used in 4th Edition) is changed to lobulated to avoid confusion with the lobular subtype of breast cancer
	Calcifications/typically benign/vascular	Calcifications/typically benign/vascular are noted to be associated with increased risk of cardiovascular disease according to recent literature (referenced)
	Calcifications/typically benign/coarse or “popcorn-like”	Calcifications/typically benign/coarse (“popcorn-like” has been eliminated by incorporating it into the remaining descriptor category “coarse” to simplify reporting, and in keeping with the radiology-wide move away from using food-related descriptors)
	Calcifications/typically benign/coarse or “popcorn-like”	Calcifications/typically benign/coarse (this category also now includes dystrophic as well, which has been eliminated as a separate descriptor)
	Calcifications/typically benign/round (punctate is a subset of round)	Calcifications/typically benign/round (the parenthetical term punctate has been removed, since both round and punctate refer to particles that are round in shape and it is not practical to measure the size of individual calcifications in the 0.5 mm diameter range)
	Calcifications/typically benign/dystrophic	Calcifications/typically benign/coarse (dystrophic has been eliminated as a separate descriptor and is now incorporated into “coarse” to simplify reporting and to emphasize the appearance of the finding rather than its presumed histopathology)

Chapter	2013 BI-RADS® Atlas (5th Edition)	ACR BI-RADS® v2025
	Calcifications/typically benign/milk of calcium	Calcifications/typically benign/layering (the descriptor milk of calcium has been replaced by layering to emphasize the morphologic appearance of underlying process (i.e., layering or sedimentation of calcium within micro- or macro-cysts) rather than the physiologic make-up of the sediment)
	Table 2. Likelihood of Malignancy as a Function of BI-RADS Descriptors of Calcification Morphology	Table 3. Positive Predictive Value of Malignancy of Breast Calcifications Based on Morphology (table has been updated to include more recent literature)
	Table 3. Likelihood of Malignancy as a Function of BI-RADS Descriptors of Calcification Distribution	Removed
	Asymmetries/developing asymmetry	Developing asymmetry as a descriptor has been discontinued, to be consistent with the remaining lexicon, where delineation of change over time is not embedded in the descriptor terminology
	Intramammary lymph node	Lymph nodes (lymph nodes have been combined into a single finding, with sub-findings of intramammary and axillary)
	Not in previous version	Multiple dilated ducts (this finding is added to the lexicon description of dilated ducts and is considered to be typically a benign finding)
	Solitary dilated duct considered suspicious unless benign etiology is demonstrated	Solitary dilated duct when not associated with suspicious imaging features (e.g., associated mass, architectural distortion, or microcalcifications) and occurring in asymptomatic individuals can be considered benign. If a solitary dilated duct is present on a baseline exam, in a symptomatic woman or is associated with other suspicious imaging features, then additional imaging evaluation leading to possible tissue diagnosis should be considered
	Associated features are defined as findings that may be described in association with masses, asymmetries or calcifications or may stand alone as a finding when no other abnormality is present. They include skin retraction, nipple retraction, skin thickening, trabecular thickening, axillary adenopathy, architectural distortion, and calcifications	The concept of secondary findings is introduced as additional abnormalities present in association with a primary finding (i.e., masses, asymmetries or calcifications). Axillary adenopathy, architectural distortion, calcifications have been recategorized as secondary findings rather than associated features
	Associated features/axillary adenopathy	Removed as an associated feature. Now included in Lymph Nodes section (the discussion of lymph nodes, both intramammary and axillary, has been combined into a single section which discusses the appearance of normal and abnormal nodes)
	Associated features/architectural distortion	Removed as an associated feature and recategorized as a secondary finding
	Associated features/calcifications	Removed as an associated feature and recategorized as a secondary finding

Chapter	2013 BI-RADS® Atlas (5th Edition)	ACR BI-RADS® v2025
	Not in previous version	Special Cases are reintroduced to this version and include Gynecomastia, Implants and other forms of augmentation, and Mastectomy
	Location of lesion	More flexibility is permitted in lesion location description. Delineation of quadrant and/or clock face is acceptable, as is either depth (anterior, mid or posterior) or distance from the nipple
	Location of lesion/depth-depth on MLO view is determined by imaginary divisions based on vertically oriented lines	Depth on MLO view is determined by using imaginary divisions that parallel the angle of the pectoralis major muscle
	Breast composition	Breast density (terminology revision)
	Breast composition illustrations are located in Report Organization section	Breast density illustrations are located in Breast Density Subsection III and include both DM and SM examples
	Report organization: 1. Indication for examination 2. Succinct description of the overall breast composition 3. Clear description of any important findings 4. Comparison to previous examination(s), if deemed appropriate by the interpreting physician 5. Assessment 6. Management	Report organization: 1. Indication for examination 2. Comparison to previous examination(s) 3. Technique 4. Breast density 5. Clear description of any important findings 6. Assessment 7. Management recommendations Report organization standardized across modalities as allowable. Terminology revised. Technique is added to Report Organization
Ultrasound	New subsection on General Considerations that includes anatomy, tissue composition, image quality, labeling/measurement and documentation	New subsection in General Considerations: Hand-Held Vs. Automated and Physician- Vs. Technologist- Performed. New inclusion of automated whole breast ultrasound images and examples
	Breast Anatomy/Axilla Breast Anatomy/Nipple and Areola Breast Anatomy/Gynecomastia	Breast Anatomy/Nipple and Areola Breast Anatomy/Location of Finding (section reorganized with Axilla discussion moved to expanded section on Lymph Nodes and Gynecomastia removed)
	Not in previous version	Breast anatomy/location of findings-discussion added about describing tissue layer finding location to allow improved identification upon comparison across modalities
	Image quality/transducer frequency	Image quality/transducer frequency and pressure (terminology revision)
	Tissue composition	Tissue composition/tissue pattern Tissue composition/glandular tissue component (terminology revision) The new lexicon sub-findings of tissue pattern and glandular tissue component (GTC) are introduced and GTC is defined with supporting evidence presented)
	Not in previous version	Masses/shape/lobulated is returned to the lexicon to allow added nuance in describing mass shape. Lobular (term used in 4th Edition) is changed to lobulated to avoid confusion with the lobular subtype of breast cancer
	Masses/orientation/not parallel	Masses/orientation/non-parallel (terminology revision)
	Masses/margin/not circumscribed	Masses/margin/non-circumscribed (terminology revision)

Chapter	2013 BI-RADS® Atlas (5th Edition)	ACR BI-RADS® v2025
	Masses/echo pattern/complex cystic and solid	Masses/echo pattern/mixed solid and cystic (terminology revision)
	Posterior features/combined pattern	Posterior features (terminology revision). Combined pattern removed from lexicon to reflect that if a mass shows any shadowing it should be characterized as shadowing
	Not in previous version	Non-mass lesion (new finding is introduced: discrete finding that can be identified as distinctly different from normal tissue, is seen in 3 dimensions but lacks the discrete margination of a mass and cannot be assigned a specific shape. Often subtle and may be detected only because the background tissue is disrupted)
	Calcifications/calcifications in a mass Calcifications/ calcifications outside of a mass Calcifications/intraductal calcifications	Calcifications/macrocalcifications Calcifications /microcalcifications Calcifications/calcifications in a mass or non-mass lesion Calcifications/calcifications outside of a mass or non-mass lesion Calcifications/intraductal calcifications Size of calcifications is included and non-mass lesion added as a finding that may be associated with calcifications
	Associated features/architectural distortion Associated features/duct changes Associated features/skin changes Associated features/edema Associated features/vascularity Associated features/elasticity assessment	Associated features/echogenic pseudocapsule Associated features/echogenic rind Associated features/architectural distortion Associated features/duct changes Associated features/skin changes Associated features/edema Associated features/vascularity Associated features/elasticity assessment (Echogenic pseudocapsule and Echogenic rind are added as sub-findings to define the tissue directly surrounding a finding)
	Associated features/vascularity/absent	Associated features/vascularity/avascular (terminology revision)
	Associated features/vascularity/vessels in rim	Associated features/vascularity/peripheral vascularity (terminology revision)
	Special cases/simple Cyst Special cases/clustered microcysts Special cases/complicated cyst Special cases/mass in or on skin Special cases/foreign including implants Special cases/lymph nodes-intramammary Special cases/lymph nodes-axillary Special cases/vascular abnormalities Special cases/postsurgical fluid collection Special cases/fat necrosis	Special cases/simple Cyst Special cases/clustered microcysts Special cases/complicated cyst Special cases/mass in or on skin Special cases/foreign body Special cases/implants Special cases/postsurgical changes, including fluid collections Special cases/fat necrosis Special cases/post-traumatic (non-surgical) changes Special cases/abscess Special cases/vascular abnormalities (Implants become a sub-finding; abscess is added as a sub-finding; terminology revisions are made)
	Not in previous version as finding	Lymph nodes added as finding-expanded discussion of intramammary, axillary, internal mammary and supraclavicular lymph node morphology and staging
	Not in previous version	Location of finding-expanded discussion of how to report location of findings

Chapter	2013 BI-RADS® Atlas (5th Edition)	ACR BI-RADS® v2025
	Report organization: 1. Indication for the exam 2. Statement of scope and technique of breast US examination 3. Succinct description of the overall breast composition (screening only) 4. Clear description of any important findings 5. Comparison to previous examination(s), including correlation with physical, mammography, or MRI findings 6. Composite reports 7. Assessment 8. Management	Report organization: 1. Indication for the exam 2. Comparison to previous examination(s) 3. Technique 4. Tissue composition (to include pattern and glandular tissue component) 5. Findings 6. Composite reports (If applicable) 7. Assessment 8. Management recommendations (Report organization standardized across modalities as allowable. Terminology revised)
Magnetic Resonance Imaging	New subsection on Clinical Information and Acquisition Parameters	The subsection is now entitled Acquisition Parameters and contains new information on abbreviated protocols and diffusion weighted imaging. Material on clinical information and comparison to priors is relocated to Report Organization subsection. Descriptive overview material about the specific topics of the MRI lexicon (e.g., Background parenchymal enhancement, kinetic curve assessment etc.) have been relocated to dedicated entries in the Lexicon portion of the section
	Background parenchymal enhancement (BPE)/minimal	Background parenchymal enhancement (BPE)/minimal (includes no enhancement) (terminology revision)
	Focus	Focus has been eliminated as a finding
	Not in previous version	Masses/shape/lobulated is returned to the lexicon to allow added nuance in describing mass shape. Lobular (term used in 4th Edition) is changed to lobulated to avoid confusion with the lobular subtype of breast cancer
	Masses/margin/not circumscribed	Masses/Margin/Non-circumscribed (terminology revision)
	Masses/Margin/Not circumscribed/Irregular	Masses/margin/non-circumscribed/indistinct replaces irregular to avoid duplication with the term irregular as a shape descriptor and to harmonize with margin descriptors for the other modalities
	Masses/internal enhancement characteristics/rim enhancement	Masses/internal enhancement characteristics/thick rim enhancement (terminology revision)
	Non-mass enhancement (NME)/distribution/multiple regions	Removed as a descriptor
	Kinetic curve assessment	Enhancement kinetics (terminology revision)
	Kinetic curve assessment/Initial phase	Enhancement kinetics/early phase (terminology revision)
	Not in previous version	T2 signal intensity is added as a mass sub-finding with the following added descriptors: T2 signal intensity/hyperintense T2 signal intensity/not hyperintense
	Intramammary lymph node	Removed as separate finding category. Lymph node discussion has been expanded and includes intramammary, axillary, and internal mammary lymph node morphology, reporting and staging (axillary lymph node discussion relocated from prior Associated features subsection; internal mammary lymph node content added)

Chapter	2013 BI-RADS® Atlas (5th Edition)	ACR BI-RADS® v2025
	Skin lesions	Removed as separate finding category. Now termed Enhancing skin lesions is a sub-finding under Other Findings — Typically Benign category
	Non-enhancing findings: 1. Ductal pre-contrast high signal on T1 2. Cyst 3. Postoperative collections (hematoma/seroma) 4. Post-therapy skin thickening and trabecular thickening 5. Non-enhancing mass 6. Architectural distortion 7. Signal void from foreign bodies, clips, etc.	Revised category called Other Findings — Typically Benign: 1. High T1 duct signal (terminology revision) 2. Cysts 3. Postoperative collections (hematoma/seroma) 4. Post-therapy skin thickening and trabecular thickening 5. Non-enhancing mass 6. Signal void (terminology revision) 7. Fat necrosis (relocated from prior Fat containing lesions subsection) 8. Hamartoma (relocated from prior Fat containing lesions subsection) 9. Enhancing skin lesions
	Associated features: 1. Nipple retraction 2. Nipple invasion 3. Skin retraction 4. Skin thickening 5. Skin invasion 6. Axillary adenopathy 6. Pectoralis muscle invasion 7. Chest wall invasion 8. Architectural distortion	Associated features: 1. Nipple retraction 2. Nipple involvement 3. Skin retraction 4. Skin thickening 5. Skin involvement 6. Pectoralis muscle involvement 7. Chest wall involvement 8. Peritumoral edema “Invasion” changed to “involvement.” Axillary adenopathy discussion moved to dedicated subsection. Architectural distortion removed as finding descriptor from this category. Peritumoral edema added as a finding descriptor.
	Fat containing lesions 1. Lymph nodes 2. Fat necrosis 3. Hamartoma 4. Postoperative seroma/hematoma with fat	Subcategory discontinued and sub-findings relocated to other subsections
	Location of lesion	Location of finding (terminology revision)-laterality and distance from nipple added as descriptors
	Implants	Implants and other types of augmentation-subsection reorganized
	Report organization: 1. Indication for examination 2. MRI technique 3. Succinct description of overall breast composition 4. Clear description of any important findings 5. Comparison to previous examination(s) 6. Assessment 7. Management	Report organization: 1. Indication for examination 2. Comparison to previous examination(s) 3. Acquisition parameters 4. Amount of fibroglandular tissue (FGT) 5. Level of background parenchymal enhancement (BPE) 6. Clear description of any important findings 7. Assessment 8. Management recommendations Report organization standardized across modalities as allowable. Level of background parenchymal enhancement (BPE) added. Terminology revised.

Chapter	2013 BI-RADS® Atlas (5th Edition)	ACR BI-RADS® v2025
	Category 6: Known Biopsy-Proven Malignancy	Category 6 may also be used for separate additional close findings (ACFs) that are suspicious but not definitively malignancy when all of the following criteria are met: 1) They are within 2 cm of the biopsy-proven malignancy, 2) They do not increase the total extent by more than 2 cm, and 3) It is felt they would not change clinical management such as prompting a significantly larger surgery
Contrast Enhanced Mammography	Breast Composition a. Almost entirely fatty b. Scattered areas of fibroglandular density c. Heterogeneously dense d. Extremely dense	Breast density (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 Density descriptors are standardized to Mammography terminology and to match FDA requirements
	Not in previous version	Masses/shape/lobulated is returned to the CEM lexicon to allow added nuance in describing mass shape. Lobular (term used in 4th Edition) is changed to lobulated to avoid confusion with the lobular subtype of breast cancer
	Masses/margin/not circumscribed	Masses/margin/non-circumscribed (terminology revision)
	Masses/margin/not circumscribed/irregular	Masses/margin/non-circumscribed/indistinct replaces irregular to avoid duplication with the term irregular as a shape descriptor and to harmonize with margin descriptors for the other modalities
	Non-mass enhancement (NME)/distribution/multiple regions	Removed as a descriptor
	Associated features a. Nipple retraction b. Nipple invasion c. Skin retraction d. Skin thickening e. Skin invasion f. Axillary adenopathy	Associated features a. Nipple retraction b. Nipple involvement c. Skin retraction d. Skin thickening e. Skin involvement f. Axillary adenopathy Invasion changed to involvement for alignment with MRI lexicon
	Report structure 1. Indication for examination 2. CEM technique 3. Comparison to previous examination(s) 4. Succinct description of overall breast composition 5. Clear description of any important findings 6. Assessment 7. Management	Report organization 1. Indication for examination 2. Comparison to previous examination(s) 3. CEM technique 4. Breast density and BPE 5. Clear description of any important findings 6. Assessment 7. Management recommendations Reorganization for alignment across modalities
	References embedded throughout section	References and suggested readings moved to the end of the section
	Appendix II: Images	The imaging examples have been moved into Section III: Imaging Examples
Audit and Outcomes Monitoring	Title: Follow-up and Outcome Monitoring	Title: Auditing and Outcomes Monitoring

Chapter	2013 BI-RADS® Atlas (5th Edition)	ACR BI-RADS® v2025
	Not in previous version	Definitions of screening and diagnostic examinations are now modality-neutral to account for current and future advances in technology and addition of new modalities. A positive screening examination is emphasized to be defined as the acquisition of additional images beyond those prescribed by the standard screening protocol, with any modality, to further evaluate any finding
	Cancer definition: tissue diagnosis of either DCIS or any type of primary (not metastatic) breast cancer	Cancer definition: tissue diagnosis of either ductal carcinoma in situ (DCIS), pleomorphic or florid lobular carcinoma in situ, or any type of primary (not metastatic) invasive breast carcinoma
	Not in previous version	Table 3: Example Pathology Results for Correctly Auditing as True- and False-Positive for Sensitivity, Specificity, Cancer Detection Rate and Positive Predictive Values
	Not in previous version	Part of basic clinically relevant audit: Outcomes for initial BI-RADS category 3 assessments (new to the BI-RADS v2025 Manual)
	Not in previous version	Multiple flowchart and figure examples for derived data calculations
	Table 3: Analysis of Medical Audit Data: BCSC Mammography Screening Benchmarks	Table 4: Analysis of Medical Audit Data: BCSC and NMD Mammography Screening Benchmarks and Acceptable Ranges per Expert Consensus (updated with newer data and recommendations derived by a panel of expert breast imaging interpreting physicians, based on critical analysis of scientific data published in the peer-reviewed literature with inclusion of acceptable ranges)
	Table 4: Analysis of Medical Audit Data: Breast US Screening Benchmarks	Table 5: Analysis of Medical Audit Data: Breast US Screening Benchmarks (updated data and now limited to multi-institutional trials representing practice in the United States and specifically conducted to prospectively establish the performance of US independent from mammography)
	Table 5: Analysis of Medical Audit Data: Breast MRI Screening Benchmarks	Table 6: Analysis of Medical Audit Data: Breast MRI Screening Benchmarks (updated data for screening breast MRI from clinical trials, from/across multiple-sites in the BCSC, and from single-site practice audits to be representative of practice in the United States)
	Table 6: Analysis of Medical Audit Data: BCSC Diagnostic Mammography Benchmarks	Table 7: Analysis of Medical Audit Data: BCSC Diagnostic Mammography Benchmarks and Acceptable Ranges per Expert Consensus (updated data and inclusion of ranges)
	Table 7: Analysis of Medical Audit Data: Acceptable Ranges of Screening Mammography Performance	Eliminated (data incorporated into Table 4)
	Table 8: Analysis of Medical Audit Data: Acceptable Ranges of Diagnostic Mammography Performance	Eliminated (data incorporated into Table 7)
	Not in previous version	The more complete audits: genetic mutations and mantle radiation treatment are included as risk factors to be included
	Not in previous version	The more complete audits: tumor biomarker status is included as cancer staging information to be collected when available
	Not in previous version	Part of more complete audit: outcomes for initial BI-RADS category 3 assessments (new to the BI-RADS v2025 Manual)

Chapter	2013 BI-RADS® Atlas (5th Edition)	ACR BI-RADS® v2025
	Not in previous version	Part of more complete audit: diagnostic breast MRI performed for extent of disease (to provide a reference to gauge radiologist performance. Identification of additional sites of disease can guide appropriate surgical treatment decisions)
	Not in previous version	Table 8: Analysis of Medical Audit Data: Breast MRI for Extent of Disease (new data provide initial audit metrics and benchmarks for performance of diagnostic breast MRI to evaluate the extent of disease)
	Not in previous version	What Not to Audit (a new entry within Areas of Confusion in the Data Collection Process portion of AOM)
	Not in previous version	The concept and categories of initial method of detection (MOD) are introduced and defined
Data Dictionary	Data Dictionary	Eliminated from Manual. Now linked electronically. NMD Data Dictionary
Appendix: Sample Lay Letters	Sample lay letters	Updated to reflect new FDA breast density reporting requirements and BI-RADS 0: Incomplete verbiage changes. Eliminated from Manual. Now linked electronically. Mammography Sample Lay Report Letters