

UAB MEDICINE BREAST IMAGING SCREENING GUIDELINES

Purpose: Regular screening mammograms help ensure that breast cancer can be detected as early as possible. To facilitate appropriate imaging-based screening, it is essential to implement evidence-based screening guidelines to promote optimal decision-making and proper utilization of image-based breast screenings. These guidelines are recommendations for ordering and obtaining breast imaging-based screenings, and they are in accordance with the American College of Radiology (ACR) Appropriateness Criteria for Breast Screening.

- UAB Medicine Breast Imaging Guidelines: No Personal History of Breast Cancer
- UAB Medicine Breast Imaging Guidelines: Personal History of Breast Cancer
- UAB Medicine Breast Imaging Guidelines: Special Cases

LEGEND

ABUS	Automated Breast Ultrasound
ACR	American College of Radiology
CEDM	Contrast- Enhanced Digital Mammography
DBT	Digital Breast Tomosynthesis
LTR	Lifetime Risk for Developing Breast Cancer
MG	Mammogram
NCCN	National Comprehensive Cancer Network
T-C 7, 8	Tyrer-Cuzick Risk Assessment Model Version 7, Version 8
US	Ultrasound

UAB BREAST IMAGING SCREENING GUIDELINES: NO PERSONAL HISTORY OF BREAST CANCER

Patient Population	Breast Density	Recommended Screening Method	Age to Start & Interval	Imaging Reference & Additional Information
Average Risk: <15%LTR (TC-7,8)	Fatty/Scattered	DBT	40yo, annual	ACR Appropriateness Criteria for Breast Screening (2017)-Variant 1
Average Risk: <15%LTR (TC-7,8)	Heterogeneously/ Extremely Dense	DBT (ABUS can be considered as adjunct screening)	40yo, annual	For women with dense breast tissue but no additional risk factors, US may be useful as an adjunct to mammography for incremental cancer detection, but the balance between increased cancer detection and the increased risk of a false-positive examination should be considered in the decision. There are no data to support the use of US for average-risk women with non-dense breasts.
Intermediate Risk: 15-20% LTR (TC-7,8)	Fatty/Scattered	DBT	40yo, annual	ACR Appropriateness Criteria for Breast Cancer Screening (2017) - Variant 2
Intermediate Risk: 15-20% LTR (TC-7,8)	Heterogeneously/ Extremely Dense	DBT (ABUS can be considered as adjunct screening)	40yo, annual	In intermediate-risk women with dense breasts, supplemental US screening is an option.
High Risk: LTR ≥ 20% OR known genetic mutation *No Surgery	Any Density	DBT plus MRI (or CEDM) Prior to 1st MRI schedule visit with NP in High Risk Clinic or Diagnostic Breast Clinic	DBT annually beginning 10 years earlier than the affected relative at the time of diagnosis but not before age 30 MRI, age 25-30	ACR Appropriateness Criteria for Breast Cancer Screening (2017) - Variant 3 If patient cannot tolerate MRI or CEDM, ABUS can be considered.
High Risk: Thoracic radiation between ages 10-30 *No Surgery	Any Density	DBT plus MRI (or CEDM*) Prior to 1st MRI schedule visit with NP in Breast Health Clinic or Diagnostic Breast Clinic	DBT annually starting at age 25 or 8 years after radiation treatment (whichever is later) MRI, age 25-30	ACR and NCCN recommendations Histories of chest radiation; cumulative dose of ≥10 Gy before age 30 If patient cannot tolerate MRI or CEDM, ABUS can be considered.

UAB BREAST IMAGING SCREENING GUIDELINES: NO PERSONAL HISTORY OF BREAST CANCER (CONT.)

Patient Population	Breast Density	Recommended Screening Method	Age to Start & Interval	Imaging Reference & Additional Information
High Risk: Prophylactic Bilateral Mastectomy *No Reconstruction		NONE		ACR Appropriateness Criteria - Imaging After Mastectomy and Breast Reconstruction (2020) - Variant 4
High Risk: Prophylactic Bilateral Mastectomy with Autologous Reconstruction		NONE		ACR Appropriateness Criteria - Imaging After Mastectomy and Breast Reconstruction (2020) - Variant 5
High Risk: Prophylactic Bilateral Mastectomy with Silicone or Saline Implants		NONE		ACR Appropriateness Criteria - Imaging After Mastectomy and Breast Reconstruction (2020) - Variant 6

UAB BREAST IMAGING SCREENING GUIDELINES: PERSONAL HISTORY OF BREAST CANCER

Patient Population	Breast Density	Recommended Screening Method	Age to Start & Interval	Imaging Reference & Additional Information
Post- Lumpectomy ≤50 years of age	Any Density	DBT plus MRI (or CEDM)	Annual screening following diagnosis (any age)	<p>Breast Cancer Screening in Women at Higher-Than-Average Risk: Recommendations from the ACR (JACR, March 2018)</p> <p>First diagnostic mammogram 6-12 months post-radiation.</p> <p>Yearly mammogram will be diagnostic for 5 years annually post treatment.</p> <p>If patient cannot tolerate MRI or CEDM, ABUS can be considered.</p>
Post- Lumpectomy > 50 years of age	Fatty/Scattered	DBT	Annual screening	<p>Breast Cancer Screening in Women at Higher-Than-Average Risk: Recommendations from the ACR (JACR, March 2018)</p> <p>First diagnostic mammogram 6-12 months post-radiation</p> <p>Annual mammogram will be diagnostic for 5 years post-treatment.</p>
Post- Lumpectomy > 50 years of age	Heterogeneously/ Extremely Dense	DBT plus MRI (or CEDM)	Annual screening	<p>Breast Cancer Screening in Women at Higher-Than-Average Risk: Recommendations from the ACR (JACR, March 2018)</p> <p>First diagnostic mammogram 6-12 months post-radiation</p> <p>Annual mammogram will be diagnostic for 5 years post-treatment.</p> <p>If patient cannot tolerate MRI or CEDM, ABUS can be considered.</p>

UAB BREAST IMAGING SCREENING GUIDELINES: PERSONAL HISTORY OF BREAST CANCER (CONT.)

Patient Population	Breast Density	Recommended Screening Method	Age to Start & Interval	Imaging Reference & Additional Information
Mastectomy with No Reconstruction	N/A	NONE	N/A	<p>ACR Appropriateness Criteria- Imaging After Mastectomy and Breast Reconstruction (2020) - Variant 1</p> <p>The contralateral breast in unilateral mastectomy patients follows guidelines for Intermediate-Risk Patients with Personal History of Breast Cancer.</p> <p>In any case, DBT or MRI can be considered, if there is a substantial amount of residual tissue.</p>
Mastectomy with Autologous Reconstruction	N/A	NONE	N/A	<p>ACR Appropriateness Criteria - Imaging After Mastectomy and Breast Reconstruction (2020) - Variant 2</p> <p>MG (DBT) may be considered. However, there is insufficient evidence to support screening with mammography of the post-mastectomy side. Currently, UAB does not recommend MG (DBT) on the reconstructed breast.</p>
Mastectomy with Silicone or Saline Implants	N/A	NONE	N/A	<p>ACR Appropriateness Criteria - Imaging After Mastectomy and Breast Reconstruction (2020) - Variant 3</p> <p>MG (DBT) may be considered. However, there is insufficient evidence to support screening with mammography of the post mastectomy side. Currently UAB does not recommend MG (DBT) on the reconstructed breast.</p>

UAB BREAST IMAGING SCREENING GUIDELINES: SPECIAL CASES

Patient Population	Breast Density	Recommended Screening Method	Age to Start & Interval	Imaging Reference & Additional Information
Transgender Woman (male birth): Average risk w/ hormone use ≥5 years	Any Density	DBT may be appropriate	>40 years of age	ACR Appropriateness Criteria for Transgender Breast Screening (2021)-Variant 1
Transgender Woman (male birth): Higher-than-average risk w/ hormone use ≥5 years	Any Density	DBT	25-30 years of age or older	ACR Appropriateness Criteria for Transgender Breast Screening (2021)-Variant 2 Higher-than-average risk: personal history of breast cancer or chest irradiation at 10-30 years of age, patient with genetic predisposition to breast cancer, patient with family history of breast or ovarian cancer, and untested patient with first-degree relative with genetic predisposition to breast cancer
Transgender Woman (male birth): Average risk w/ hormone use <5 years OR no hormone use	Any Density	None	Any age	ACR Appropriateness Criteria for Transgender Breast Screening (2021)-Variant 3
Transgender Woman (male birth): Higher-than-average risk w/ hormone use <5 years OR no hormone use	Any Density	DBT may be appropriate	25-30 years of age or older	ACR Appropriateness Criteria for Transgender Breast Screening (2021)-Variant 4 Higher-than-average risk: personal history of breast cancer or chest irradiation at 10-30 years of age, patient with genetic predisposition to breast cancer, patient with family history of breast or ovarian cancer, and untested patient with first-degree relative with genetic predisposition to breast cancer

UAB BREAST IMAGING SCREENING GUIDELINES: SPECIAL CASES (CONT.)

Patient Population	Breast Density	Recommended Screening Method	Age to Start & Interval	Imaging Reference & Additional Information
Transgender Man (female birth): History of bilateral mastectomy			None	ACR Appropriateness Criteria for Transgender Breast Screening (2021)-Variant 5
Transgender Man (female birth): Average Risk w/ history of reduction mammoplasty or no chest surgery	Any Density	DBT	40 years old, annually	ACR Appropriateness Criteria for Transgender Breast Screening (2021)-Variant 6
Transgender Man (female birth): Intermediate risk	Any Density	DBT (ABUS, MRI may be appropriate)	30 years of age or older	ACR Appropriateness Criteria for Transgender Breast Screening (2021)-Variant 7 Intermediate risk: personal history of breast cancer, lobular neoplasia, atypical ductal hyperplasia, or 15-20% lifetime risk of breast cancer
Transgender Man (female birth): High risk	Any Density	DBT plus MRI (CEDM or ABUS may be appropriate if MRI is not tolerated)	25-30 years of age or older	ACR Appropriateness Criteria for Transgender Breast Screening (2021)-Variant 8 High risk: genetic predisposition to breast cancer or untested patient with a first-degree relative with genetic predisposition to breast cancer, patient with a history of chest irradiation and 10-30 years of age, patient with 20% or greater lifetime risk of breast cancer
Male with History of Breast Cancer or High Risk		DBT	Annual >35 years old, not before age 25 Prior to 1st DBT: Schedule visit with NP in Breast Health Clinic or in Diagnostic Breast Clinic.	NCCN Guidelines Male Breast Cancer in the Age of Genetic Testing: An Opportunity for Early Detection, Tailored Therapy, and Surveillance. Gao Y, Heller SL, Moy L. Radiographics, 2018.Sep-Oct; 38(5):1289-1311. Mammographic Screening in Male Patients at High Risk for Breast Cancer: Is it Worth It? Marino MA, Gucalp A, Leithner D, et al. Breast Cancer Res Treat.2019 Oct; 177(3):705-711.

UAB BREAST IMAGING SCREENING GUIDELINES: SPECIAL CASES (CONT.)

Patient Population	Breast Density	Recommended Screening Method	Age to Start & Interval	Imaging Reference & Additional Information
During Pregnancy: Any Risk	Any Density	Follow guidelines for non-pregnant counterpart (see above) with the exception of MRI. MRI is not indicated for screening in pregnant women.		<p>ACR Appropriateness Criteria - Breast Imaging of Pregnant and Lactating Women (2018)</p> <p>ABUS; evidence not available. May be considered. However, false positives should be considered</p>
During Lactation: Any Risk	Any Density	Follow guidelines for non-lactating counterpart (see above).		<p>ACR Appropriateness Criteria - Breast Imaging of Pregnant and Lactating Women (2018)</p> <p>Tissue will be dense; expressing breast milk just prior to examination by breast feeding or pumping improves accuracy.</p>
Implant Integrity: Any Risk	Any Density	Follow guidelines for patients without implants (see above).		<p>ACR Appropriateness Criteria - Breast Implant Evaluation (2018)</p> <p>Implant evaluation by imaging is done only when there is symptom for rupture or BIA-ALCL, and that is a diagnostic study, not a screening.</p>