UNITEDHEALTHCARE® COMMUNITY PLAN: RADIOLOGY IMAGING COVERAGE DETERMINATION GUIDELINE

Breast Imaging Guidelines (For Ohio Only)

V2.0.2026

Guideline Number: CSRAD002OH.F

Effective Date: September 1, 2026

Application (for Ohio Only)

This Medical Policy only applies to the state of Ohio. Any requests for services that are stated as unproven or services for which there is a coverage, age, timeframe, or quantity limit will be evaluated for medical necessity using Ohio Administrative Code 5160-1-01.

The determination for breast imaging is made on a case-by-case basis with consideration of the individual's personal and family health history, physical examination findings, and symptoms (presenting or changes).

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- This Medical Policy only applies to the state of Ohio. Any requests for services that are stated as unproven or services for which there is a coverage, age, timeframe, or quantity limits will be evaluated for medical necessity using Ohio Administrative Code 5160-1-01.

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Guideline Development (Preface-1)

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- These evidence-based, proprietary clinical guidelines evaluate a range of advanced imaging and procedures, including NM, US, CT, MRI, PET, Radiation Oncology, Sleep Studies, as well as Cardiac, Musculoskeletal and Spine interventions.
- UnitedHealthcare reserves the right to change and update the guidelines. The guidelines undergo a formal review annually. These clinical guidelines are based on current evidence supported by major national and international association and society guidelines and criteria, peer-reviewed literature, and major treatises as well as input from health plans, and practicing academic and community-based physicians.
- These guidelines are not intended to supersede or replace sound medical judgment, but instead, should facilitate the identification of the most appropriate imaging or other designated procedure given the individual's clinical condition. These guidelines are written to cover medical conditions as experienced by the majority of individuals. However, these guidelines may not be applicable in certain clinical circumstances, and physician judgment can override the guidelines.
- These guidelines provide evidence-based, clinical benefits with a focus on health care quality and patient safety.
- Clinical decisions, including treatment decisions, are the responsibility of the individual and his/her provider. Clinicians are expected to use independent medical judgment, which takes into account the clinical circumstances to determine individual management decisions.

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Benefits, Coverage Policies, and Eligibility Issues (Preface-2)

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Benefits, Coverage Policies, and Eligibility Issues (Preface-2.1)
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Benefits, Coverage Policies, and Eligibility Issues (Preface-2.1)

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Investigational and Experimental Studies

- Certain studies, treatments, procedures, or devices may be considered experimental, investigational, or unproven for any condition, illness, disease, injury being treated if one of the following is present:
  - if there is a paucity of supporting evidence;
  - if the evidence has not matured to exhibit improved health parameters;
  - if clinical utility has not been demonstrated in any condition; OR
  - if the study, treatment, procedure, or device lacks a collective opinion of support
- Supporting evidence includes standards that are based on credible scientific evidence published in peer-reviewed medical literature (such as well conducted randomized clinical trials or cohort studies with a sample size of sufficient statistical power) generally recognized by the relevant medical community. Collective opinion of support includes physician specialty society recommendations and the views of physicians practicing in relevant clinical areas when physician specialty society recommendations are not available.

Clinical and Research Trials

- Similar to investigational and experimental studies, clinical trial imaging requests are reviewed to determine whether they meet these evidence-based clinical guidelines.
- Imaging studies which are inconsistent with established clinical standards, or are requested for data collection and not used in direct clinical management are not medically necessary.

CPT Codes

- The inclusion of any CPT code in the clinical guidelines does not imply that the code is under management or requires prior authorization.

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References (Preface-2)

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1. 2.42 USC 300gg-8: Coverage for individuals participating in approved clinical trials. House.gov. Published 2024.

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Clinical Information (Preface-3)

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Clinical Information (Preface-3.1)
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Clinical Information (Preface-3.1)

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Clinical Documentation and Age Considerations

- These clinical guidelines use an evidence-based approach to determine the most appropriate procedure for each individual, at the most appropriate time in the diagnostic and treatment cycle. These clinical guidelines are framed by:
  - clinical presentation of the individual, rather than the studies requested
  - adequate clinical information that must be submitted to UnitedHealthcare in order to establish medical necessity for advanced imaging or other designated procedures including, but not limited to, the following:
    - Pertinent clinical evaluation since the onset or change in symptoms including a detailed history, physical examination, appropriate laboratory studies, and appropriate prior imaging studies.
      - Condition-specific guideline sections may describe additional clinical information which is required for a pertinent clinical evaluation.
      - The Spine and Musculoskeletal guidelines require x-ray studies from when the current episode of symptoms has started or changed.
      - Advanced imaging or other designated procedures should not be ordered prior to clinical evaluation of an individual by the physician treating the individual. This may include referral to a consultant specialist who will make further treatment decisions.
      - Other meaningful technological contact (telehealth visit, telephone or video call, electronic mail or messaging) since the onset or change in symptoms by an established individual can serve as a pertinent clinical evaluation.
        - Some conditions may require a face-to-face evaluation as discussed in the applicable condition-specific guideline sections.
    - A recent clinical evaluation may be unnecessary if the individual is undergoing a guideline-supported, scheduled follow-up imaging or other designated procedural evaluation. Exceptions due to routine surveillance indications are addressed in the applicable condition-specific guideline sections.
  - The evidence-based approach to determine the most appropriate procedure for each individual requires submission of medical records pertinent to the requested imaging or other designated procedures.
- Many conditions affecting the pediatric population are different diagnoses than those occurring in the adult population. For those diseases which occur in both pediatric and adult populations, minor differences may exist in management due to individual

age, comorbidities, and differences in disease natural history between children and adults.
  - Individuals who are 18 years old or younger should be imaged according to the Pediatric Imaging Guidelines if discussed in the condition-specific guideline sections. Any conditions not specifically discussed in the Pediatric Imaging Guidelines should be imaged according to the General Imaging Guidelines. Individuals who are >18 years old should be imaged according to the General Imaging Guidelines, except where directed otherwise by a specific guideline section.

General Imaging Information

- "Standard" or "conventional" imaging is most often performed in the initial and subsequent evaluations of malignancy. Standard or conventional imaging includes plain film, CT, MRI, or US.
  - Often, further advanced imaging is needed when initial imaging, such as ultrasound, CT, or MRI does not answer the clinical question. Uncertain, indeterminate, inconclusive, or equivocal may describe these situations.
- Appropriate use of contrast is a very important component of evidence-based advanced imaging use.
  - The appropriate levels of contrast for an examination (i.e., without contrast, with contrast, without and with contrast) is determined by the evidence-based guidance reflected in the condition-specific guideline sections.
  - If, during the performance of a non-contrast imaging study, there is the unexpected need to use contrast in order to evaluate a possible abnormality, then that is appropriate.

Ultrasound

- Diagnostic ultrasound uses high-frequency sound waves to evaluate soft tissue structures and vascular structures utilizing grey scale and Doppler techniques.
- Ultrasound allows for dynamic real-time imaging at the bedside.
  - Ultrasound is limited in areas where there is dense bone or other calcification.
  - Ultrasound also has a relatively limited imaging window so may be of limited value in evaluating very large abnormalities.
  - In general, ultrasound is highly operator-dependent, and proper training and experience are required to perform consistent, high-quality evaluations.
- Indications for ultrasound may include, but are not limited to, the following:
  - Obstetric and gynecologic imaging
  - Soft tissue and visceral imaging of the chest, abdomen, pelvis, and extremities
  - Brain and spine imaging when not obscured by dense bony structures
  - Vascular imaging when not obscured by dense bony structures
  - Procedural guidance when not obscured by dense bony structures

  - Initial evaluation of ill-defined soft tissue masses or fullness and differentiating adenopathy from mass or cyst. Prior to advanced imaging, ultrasound can be very beneficial in selecting the proper modality, body area, image sequences, and contrast level that will provide the most definitive information for the individual.
- More specific guidance for ultrasound usage, including exceptions to this general guidance, can be found throughout the condition-specific guidelines.

Computed Tomography (CT)

- The AMA CPT® manual does not describe nor assign any minimum or maximum number of sequences for any CT study. CT imaging protocols are often influenced by the individual's clinical situation and additional sequences are not uncommon. There are numerous CT protocols that may be performed to evaluate specific clinical questions, and this technology is constantly undergoing development.
- CT utilizes ionizing radiation to create cross-sectional and volumetric images of the body.
  - Advantages over ultrasound include a much larger field of view and faster completion time in general. Disadvantages compared to ultrasound include lack of portability and exposure to ionizing radiation.
  - Advantages over MRI include faster imaging and a more spacious scanner area limiting claustrophobia. Disadvantages compared to MRI include decreased soft tissue definition, especially with non-contrast imaging, and exposure to ionizing radiation.
- CT can be performed without, with, or without and with intravenous (IV) contrast depending on the clinical indication and body area.
  - In general, non-contrast imaging is appropriate for evaluating structures with significant tissue density differences such as lung parenchyma and bony structures, or when there is a contraindication to contrast.
  - In general, CT with contrast is the most common level of contrast and can be used when there is need for improved vascular or soft tissue resolution, including better characterization of known or suspected malignancy, as well as infectious and inflammatory conditions.
  - CT without and with contrast has a limited role as the risks of doubling the ionizing radiation exposure rarely outweigh the benefits of multiphasic imaging, though there are some exceptions which include, but are not limited to, the following:
    - Characterization of a mass
    - Characterization of arterial and venous anatomy
    - CT with contrast may be used to better characterize findings on a very recent (within two weeks) inconclusive non-contrast CT where the guidelines would support CT without and with contrast.
  - More specific guidance for CT contrast usage, including exceptions to this general guidance, can be found throughout the condition-specific guidelines.

- Shellfish allergy:
  - It is commonly assumed that an allergy to shellfish indicates iodine allergy, and that this implies an allergy to iodinated contrast media used with CT. However, this is NOT true. Shellfish allergy is due to tropomyosins. Iodine plays no role in these allergic reactions. Allergies to shellfish do not increase the risk of reaction to iodinated contrast media any more than that of other allergens.
- Enteric contrast (oral or rectal) is sometimes used in abdominal imaging. There is no specific CPT® code which refers to enteric contrast.
- The appropriate contrast level and anatomic region in CT imaging is specific to the clinical indication, as listed in the condition-specific guideline sections.
- CT should not be used to replace MRI in an attempt to avoid sedation unless it is listed as a recommended study in the appropriate condition-specific guideline.
- There are significant potential adverse effects associated with the use of iodinated contrast media. These include hypersensitivity reactions, thyroid dysfunction, and contrast-induced nephropathy (CIN). Individuals with impaired renal function are at increased risk for CIN.
- Both contrast CT and MRI are considered to have the same risk profile with renal failure (GFR <30mL/min).
- The use of CT contrast should proceed with caution in pregnant and breastfeeding individuals. There is a theoretical risk of contrast toxicity to the fetal and infant thyroid. The procedure can be performed if the specific need for that contrast-enhanced procedure outweighs risk to the fetus. Breastfeeding individuals may reduce this risk by choosing to pump and discard breast milk for 12-24 hours after the contrast injection.
- CT without contrast is medically necessary if clinical criteria for CT with contrast are met AND the individual has/is:
  - elevated blood urea nitrogen (BUN) and/or creatinine
  - renal insufficiency
  - allergies to iodinated contrast
  - thyroid disease which could be treated with I-131
  - diabetes
  - very elderly
  - urgent or emergent settings due to availability
  - trauma
- CT is superior to other imaging modalities in certain conditions including, but not limited to, the following:
  - Screening following trauma
  - Imaging pulmonary disease
  - Imaging abdominal and pelvic viscera
  - Imaging of complex fractures

  - Evaluation of inconclusive findings on Ultrasound or MRI, or if there is a contraindication to MRI
- More specific guidance for CT usage, including exceptions to this general guidance, can be found throughout the condition-specific guidelines.

Magnetic Resonance Imaging (MRI)

- The AMA CPT® manual does not describe nor assign any minimum or maximum number of sequences for any MRI study. MRI protocols are often influenced by the individual's clinical situation and additional sequences are not uncommon. There are numerous MRI sequences that may be performed to evaluate specific clinical questions, and this technology is constantly undergoing development.
- Magnetic Resonance Imaging (MRI) utilizes the interaction between the intrinsic radiofrequency of certain molecules in the body (hydrogen in most cases) and a strong external magnetic field.
  - MRI is often superior for advanced imaging of soft tissues and can also define physiological processes in some instances (e.g., edema, loss of circulation [AVN], and increased vascularity [tumors]).
  - MRI does not use ionizing radiation and even non-contrast images have much higher soft tissue definition than CT or Ultrasound.
  - MRI typically takes much longer than either CT or Ultrasound, and for some individuals may require sedation. It is also much more sensitive to individual motion that can degrade image quality than either CT or Ultrasound.
- MRI Breast and MRI Chest are not interchangeable, as they focus detailed sequences on different adjacent body parts.
- MRI may be utilized either as the primary advanced imaging modality, or when further definition is needed based on CT or ultrasound imaging.
- Most orthopedic and dental implants are not magnetic. These include hip and knee replacements; plates, screws, and rods used to treat fractures; and cavity fillings. Yet, all of these metal implants can distort the MRI image if near the part of the body being scanned.
  - Other implants, however, may have contraindications to MRI. These include the following:
    - pacemakers
    - ICD or heart valves
    - metal implants in the brain
    - metal implants in the eyes or ears
    - infusion catheters and bullets or shrapnel
  - CT can therefore be an alternative study to MRI in these scenarios.
- The contrast level and anatomic region in MRI imaging is specific to the clinical indication, as listed in the specific guideline sections.

- MRI utilizing Xenon Xe 129 (CPT® C9791) for contrast is considered investigational and experimental at this time. MRI with or with and without contrast in these guidelines refers to MRI utilizing gadolinium for contrast.
- MRI is commonly performed without, and without and with contrast.
  - Non-contrast imaging offers excellent tissue definition.
  - Imaging without and with contrast is commonly used when needed to better characterize tissue perfusion and vascularization.
    - Most contrast is gadolinium based and causes T2 brightening of the vascular and extracellular spaces.
    - Some specialized gadolinium and non-gadolinium contrast agents are available, and are most commonly used for characterizing liver lesions.
  - MRI with contrast only is rarely appropriate and is usually used to better characterize findings on a recent inconclusive non-contrast MRI, commonly called a completion study.
  - MRI contrast is relatively contraindicated in pregnant individuals.
  - More specific guidance for MRI contrast usage, including exceptions to this general guidance, can be found throughout the condition-specific guidelines.
- MRI may be preferred in individuals with renal failure and in individuals allergic to intravenous CT contrast.
  - Both contrast CT and MRI are considered to have the same risk profile with renal failure (GFR <30mL/min).
  - Gadolinium can cause Nephrogenic Systemic Fibrosis (NSF). The greater the exposure to gadolinium in individuals with a low GFR (especially if on dialysis), the greater the chance of individuals developing NSF.
  - Multiple studies have demonstrated potential for gadolinium deposition following the use of gadolinium-based contrast agents (GBCAs) for MRI studies. The U.S. Food and Drug Administration (FDA) has noted that there is currently no evidence to suggest that gadolinium retention in the brain is harmful and restricting GBCAs use is not warranted at this time. It has been recommended that GBCA use should be limited to circumstances in which additional information provided by the contrast agent is necessary and the necessity of repetitive MRIs with GBCAs should be assessed.
- A CT is medically necessary in place of an MRI when clinical criteria are met for MRI AND there is a contraindication to having an MRI (e.g., pacemaker, ICD, insulin pump, neurostimulator, etc.).
  - When replacing MRI with CT, contrast level matching should occur as follows:
    - MRI without contrast → CT without contrast
    - MRI without and with contrast → CT with contrast or CT without and with contrast
- The following situations may impact the appropriateness for MRI and/or MR contrast:

  - Caution should be taken in the use of gadolinium in individuals with renal failure.
  - The use of gadolinium contrast agents is relatively contraindicated during pregnancy unless the specific need for that procedure outweighs risk to the fetus.
  - MRI can be performed for non-ferromagnetic body metals (i.e., titanium), although some imaging facilities will consider it contraindicated if recent surgery, regardless of the metal type.
- MRI should not be used as a replacement for CT for the sole reason of avoidance of ionizing radiation when MRI is not medically necessary in the condition-based guidelines, since it does not solve the problem of overutilization.
- MRI is superior to other imaging modalities in certain conditions including, but not limited to, the following:
  - Imaging the brain and spinal cord
  - Characterizing visceral and musculoskeletal soft tissue masses
  - Evaluating musculoskeletal soft tissues including ligaments and tendons
  - Evaluating inconclusive findings on ultrasound or CT
  - Individuals who are pregnant or have high radiation sensitivity
  - Suspicion, diagnosis, or surveillance of infections
- More specific guidance for MRI usage, including exceptions to this general guidance, can be found throughout the condition-specific guidelines.

Positron Emission Tomography (PET)

- PET is a nuclear medicine study that uses a positron emitting radiotracer to create cross-sectional and volumetric images based on tissue metabolism.
- Conventional imaging (frequently CT, sometimes MRI or bone scan) of the affected area(s) drives much of initial and restaging and surveillance imaging for malignancy and other chronic conditions. PET is not medically necessary for surveillance imaging unless specifically stated in the condition-specific guideline sections.
- PET/MRI is generally not medically necessary, see **PET-MRI (Preface-5.3)**.
- PET is rarely performed as a single modality, but is typically performed as a combined PET/CT.
  - The unbundling of PET/CT into separate PET and diagnostic CT CPT® codes is not medically necessary, because PET/CT is done as a single study.
- PET/CT lacks the tissue definition of CT or MRI but is fairly specific for metabolic activity based on the radiotracer used.
- Indications for PET/CT may include the following:
  - Oncologic Imaging for evaluation of tumor metabolic activity
  - Cardiac Imaging for evaluation of myocardial metabolic activity
  - Brain Imaging for evaluation of metabolic activity for procedural planning
- More specific guidance for PET usage, including exceptions to this general guidance, can be found throughout the condition-specific guidelines.

Overutilization of Advanced Imaging

- A number of reports describe overutilization in many areas of advanced imaging and other procedures, which may include the following:
  - High-level testing without consideration of less invasive, lower cost options which may adequately address the clinical question at hand
  - Excessive radiation and costs with unnecessary testing
  - Defensive medical practice
  - CT without and with contrast (so called "double contrast studies") requests, which have few current indications
  - MRI requested in place of CT to avoid radiation without considering the primary indication for imaging
  - Adult CT settings and protocols used for smaller people and children
  - Unnecessary imaging procedures when the same or similar studies have already been conducted
- A review of the imaging or other relevant procedural histories of all individuals presenting for studies has been recognized as one of the more important processes that can be significantly improved. By recognizing that a duplicate or questionably medically necessary imaging study has been ordered for individuals, it may be possible to avoid exposing them to unnecessary risks. To avoid these unnecessary risks, the precautions below should be considered:
  - The results of initial diagnostic tests or radiologic studies to narrow the differential diagnosis should be obtained prior to performing further tests or radiologic studies.
  - The clinical history should include a potential indication such as a known or suspected abnormality involving the body part for which the imaging study is being requested. These potential indications are addressed in greater detail within the applicable guidelines.
  - The results of the requested imaging procedures should be expected to have an impact on individual management or treatment decisions.
  - Repeat imaging studies are not generally necessary unless there is evidence of disease progression, recurrence of disease, and/or the repeat imaging will affect an individual’s clinical management.
- Pre-operative imaging/pre-surgical planning imaging/pre-procedure imaging is not medically necessary if the surgery/procedure is not medically necessary. Once the procedure has been approved or if the procedure does not require prior authorization, the appropriate pre-procedural imaging may be approved.

Health Equity Considerations

Health equity is the highest level of health for all individuals; health inequity is the avoidable difference in health status or distribution of health resources due to the social

conditions in which individuals are born, grow, live, work, and age. Social determinants of health are the conditions in the environment that affect a wide range of health, functioning, and quality of life outcomes and risks. Examples include the following: safe housing, transportation, and neighborhoods; racism, discrimination, and violence; education, job opportunities, and income; access to nutritious foods and physical activity opportunities; access to clean air and water; and language and literacy skills.

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Coding Issues (Preface-4)

Guideline

3D Rendering (Preface-4.1)

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CPT® 76376 and CPT® 76377

- Both codes require concurrent supervision of the image post-processing 3D manipulation of the volumetric data set and image rendering.
  - Concurrent supervision is defined as active physician participation in and monitoring of the reconstruction process including design of the anatomic region that is to be reconstructed; determination of the tissue types and actual structures to be displayed (e.g., bone, organs, and vessels); determination of the images or cine loops that are to be archived; and, monitoring and adjustment of the 3D work product. The American College of Radiology (ACR) recommended that it is best to document the physician's supervision or participation in the 3D reconstruction of images.
- These two codes differ in the need for and use of an independent workstation for post-processing.
  - CPT® 76376 reports procedures not requiring image post-processing on an independent workstation.
  - CPT® 76377 reports procedures that require image post-processing on an independent workstation.
- These 3D rendering codes should not be used for 2D reformatting.
- Two-dimensional reconstruction (e.g., reformatting an axial scan into the coronal plane) is now included in all cross-sectional imaging base codes and is not separately reimbursable.
- The codes used to report 3D rendering for ultrasound and echocardiography are also used to report the 3D post processing work on CT, MRI, and other tomographic modalities.
- Providers may be required to obtain prior authorization on these 3D codes even if prior authorization is not required for the echocardiography and/or ultrasound procedure codes. It may appear that UnitedHealthcare pre-authorizes echocardiography and/or ultrasound when, in fact, it may only be the 3D code that needs the prior authorization.
- CPT® codes for 3D rendering should not be billed in conjunction with computer-aided detection (CAD), MRA, CTA, nuclear medicine SPECT studies, PET, PET/CT, stereotactic localization (CPT® 77011 or CPT® 70486 if used), Mammogram, MRI Breast, US Breast, CT Colonography (virtual colonoscopy), Cardiac MRI, Cardiac CT, or Coronary CTA studies.

- CPT® 76377 (3D rendering requiring image post-processing on an independent workstation) or CPT® 76376 (3D rendering not requiring image post-processing on an independent workstation) can be considered in the following clinical scenarios:
  - Bony conditions:
    - Evaluation of congenital skull abnormalities in newborns, infants, and toddlers (usually for pre-operative planning)
    - Complex fractures (comminuted or displaced)/dislocations of any joint (for pre-operative planning when conventional imaging is insufficient)
    - Spine fractures, pelvic/acetabulum fractures, intra-articular fractures (for pre-operative planning when conventional imaging is insufficient)
    - Pre-operative planning for other complex surgical cases
    - Complex facial fractures
  - Pre-operative planning for other complex surgical cases
  - Cerebral angiography
  - Pelvis conditions:
    - Uterine intra-cavitary lesion when initial US is equivocal: See **Abnormal Uterine Bleeding (AUB) (PV-2.1)** and **Leiomyoma/Uterine Fibroids (PV-12.1)** in the Pelvis Imaging Guidelines.
    - Hydrosalpinxes or peritoneal cysts when initial US is indeterminate: See **Complex Adnexal Masses (PV-5.3)** in the Pelvis Imaging Guidelines.
    - Lost IUD (inability to feel or see IUD string) with initial US: See **Intrauterine Device (PV-10.1)** in the Pelvis Imaging Guidelines.
    - Uterine anomalies with initial US: See **Uterine Anomalies (PV-14.1)** in the Pelvis Imaging Guidelines.
    - Infertility: See **Initial Infertility Evaluation, Female (PV-9.1)** in the Pelvis Imaging Guidelines.
  - Abdomen conditions:
    - CT Urogram: See **Hematuria and Hydronephrosis (AB-39)** in the Abdomen Imaging Guidelines.
    - MRCP: See **MR Cholangiopancreatography (MRCP) (AB-27)** in the Abdomen Imaging Guidelines.

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CT-, MR-, or Ultrasound-Guided Procedures (Preface-4.2)

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- CT-, MR-, and Ultrasound-guidance procedure codes contain all of the imaging necessary to guide a needle or catheter. It is inappropriate to routinely bill a diagnostic procedure code in conjunction with a guidance procedure code.
- Imaging studies performed as part of a CT-, MR-, or Ultrasound-guided procedure should be reported using the CPT® codes in the following table:

TABLE: Imaging Guidance Procedure Codes

CPT®	Description
19085	Biopsy, breast, with placement of breast localization device(s), when performed, and imaging of the biopsy specimen, when performed, percutaneous; first lesion, including MR guidance
19086	Biopsy, breast, with placement of breast localization device(s), when performed, and imaging of the biopsy specimen, when performed, percutaneous; each additional lesion, including MR guidance
75989	Imaging guidance for percutaneous drainage with placement of catheter (all modalities)
76942	Ultrasonic guidance for needle placement
77011	CT guidance for stereotactic localization
77012	CT guidance for needle placement
77013	CT guidance for, and monitoring of parenchymal tissue ablation
77021	MR guidance for needle placement
77022	MR guidance for, and monitoring of parenchymal tissue ablation

CPT®	Description
C8001	3D anatomical segmentation imaging for preoperative planning, data preparation and transmission, obtained from previous diagnostic CT or MR examination of the same anatomy

CPT® 19085 and CPT® 19086

- The proper way to bill an MRI-guided breast biopsy is CPT® 19085 (Biopsy, breast, with placement of breast localization device(s), when performed, and imaging of the biopsy specimen, when performed, percutaneous; first lesion, including MR guidance). Additional lesions should be billed using CPT® 19086.
  - **CPT® 77021** (MR guidance for needle placement) is not an appropriate code for a breast biopsy.

CPT® 75989

- This code is used to report imaging guidance for a percutaneous drainage procedure in which a catheter is left in place.
- This code can be used to report whether the drainage catheter is placed under fluoroscopy, Ultrasound-, CT-, or MR-guidance modality.

CPT® 77011

- A stereotactic CT localization scan is frequently obtained prior to sinus surgery. The dataset is then loaded into the navigational workstation in the operating room for use during the surgical procedure. The information provides exact positioning of surgical instruments with regard to the individual's 3D CT images.
- In most cases, the pre-operative CT is a technical-only service that does not require interpretation by a radiologist.
  - The imaging facility should report CPT® 77011 when performing a scan not requiring interpretation by a radiologist.
  - If a diagnostic scan is performed and interpreted by a radiologist, the appropriate diagnostic CT code (e.g., CPT® 70486) should be used.
  - It is not appropriate to report both CPT® 70486 and CPT® 77011 for the same CT stereotactic localization imaging session.
  - 3D Rendering (CPT® 76376 or CPT® 76377) should not be reported in conjunction with CPT® 77011 (or CPT® 70486 if used). The procedure inherently generates a 3D dataset.

CPT® 77012 (CT) and CPT® 77021 (MR)

- These codes are used to report imaging guidance for needle placement during biopsy, aspiration, and other percutaneous procedures.
- They represent the radiological supervision and interpretation of the procedure and are often billed in conjunction with surgical procedure codes.
  - For example, CPT® 77012 is reported when CT guidance is used to place the needle for a conventional arthrogram.
  - Only codes representing percutaneous surgical procedures should be billed with CPT® 77012 and CPT® 77021. It is inappropriate to use with surgical codes for open, excisional, or incisional procedures.
  - **CPT® 77021** (MR guidance for needle placement) is not an appropriate code for breast or prostate biopsy.
    - CPT® 19085 would be appropriate for the first breast biopsy site and CPT® 19086 would be appropriate for additional concurrent biopsies.

CPT® 77013 (CT) and CPT® 77022 (MR)

- These codes include the initial guidance to direct a needle electrode to the tumor(s), monitoring for needle electrode repositioning within the lesion, and as necessary for multiple ablations to coagulate the lesion and confirmation of satisfactory coagulative necrosis of the lesion(s) and comparison to pre-ablation images.
  - **NOTE:** CPT® 77013 should only be used for non-bone ablation procedures.
    - CPT® 20982 includes CT guidance for bone tumor ablations.
  - Only codes representing percutaneous surgical procedures should be billed with CPT® 77013 and CPT® 77022. It is inappropriate to use with surgical codes for open, excisional, or incisional procedures.
- CPT® 77012 and CPT® 77021 (as well as guidance codes CPT® 76942 [US], and CPT® 77002 - CPT® 77003 [fluoroscopy]) describe radiologic guidance by different modalities.
  - Only one unit of any of these codes should be reported per individual encounter (date of service). The unit of service is considered to be the individual encounter, not the number of lesions, aspirations, biopsies, injections, or localizations.

Unlisted Procedures/Therapy Treatment Planning (Preface-4.3)

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Unlisted Procedures

CPT ®	Description
76497	Unlisted CT procedure (e.g., diagnostic or interventional)
76498	Unlisted MR procedure (e.g., diagnostic or interventional)
78999	Unlisted procedure, diagnostic nuclear medicine

- For general information related to unlisted procedures, please refer to **Management of Unlisted Codes**.
- These unlisted codes should be reported whenever a diagnostic or interventional CT or MR study is performed in which an appropriate anatomic site-specific code is not available.
  - A Category III code that describes the procedure performed must be reported rather than an unlisted code if one is available.
- CPT® 76497 or CPT® 76498 (Unlisted CT or MRI procedure) is medically necessary in the following clinical scenarios:
  - Studies done for navigation and planning for neurosurgical procedures (i.e., Stealth or Brain Lab Imaging)
  - Custom joint arthroplasty planning (not as an alternative recommendation): See **Osteoarthritis (MS-12.1)** in the Musculoskeletal Imaging Guidelines.
  - Any procedure/surgical planning if thinner cuts or different positional acquisition (than those on the completed diagnostic study) are needed. These could include navigational bronchoscopy: See **Navigational Bronchoscopy and Biopsy (CH-1.7)** in the Chest Imaging Guidelines.

Therapy Treatment Planning

- Radiation Therapy Treatment Planning: See **Unlisted Procedure Codes in Oncology (ONC-1.5)** in the Oncology Imaging Guidelines.

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CPT® 76380 Limited or Follow-up CT (Preface-4.5)

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- CPT® 76380 describes a limited or follow-up CT scan. The code is used to report any CT scan, for any given area of the body, in which the work of a full diagnostic code is not performed.
- Common examples include, but are not limited to, the following:
  - Limited sinus CT imaging protocol
  - Limited or follow-up slices through a known pulmonary nodule
  - Limited slices to assess a non-healing fracture (such as the clavicle)
- Limited CT (CPT® 76380) is not medically necessary for treatment planning purposes. See **Unlisted Procedure Codes in Oncology (ONC-1.5)** in the Oncology Imaging Guidelines.
- It is inappropriate to report CPT® 76380, in conjunction with other diagnostic CT codes, to cover 'extra slices' in certain imaging protocols.
  - There is no specific number of sequences or slices defined in any CT CPT® code definition.
  - The AMA, in *CPT® 2019*, does not describe nor assign any minimum or maximum number of sequences or slices for any CT study.
    - A few additional slices or sequences are not uncommon.
    - CT imaging protocols are often influenced by the individual's clinical situation. Sometimes the protocols require more time and sometimes less.

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SPECT/CT Imaging (Preface-4.6)

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- SPECT/CT involves SPECT (Single Photon Emission Computed Tomography) nuclear medicine imaging and CT for optimizing location, accuracy, and attenuation correction and combines functional and anatomic information.
  - Common studies using this modality include ^{123}I- or ^{131}I-Metaiodobenzylguanidine (MIBG) and octreotide scintigraphy for neuroendocrine tumors.
- Hybrid Nuclear/CT scan can be reported as CPT® 78830 (single area and single day), CPT® 78831 (2 or more days), or CPT® 78832 (2 areas with one day and 2-day study).
- CPT® 78072 became effective January 1, 2013 for SPECT/CT parathyroid nuclear imaging.

CPT® 76140 Interpretation of an Outside Study (Preface-4.7)

PRF.CD.0004.7.UOH

v2.0.2026

- It is inappropriate to use diagnostic imaging codes for interpretation of a previously performed exam that was completed at another facility.
  - If the outside exam is being used for comparison with a current exam, the diagnostic code for the current examination includes comparison to the prior study.
  - CPT® 76140 is the appropriate code to use for an exam which was completed elsewhere and a secondary interpretation of the images is requested.

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Quantitative MR Analysis (Preface-4.8)

PRF.CD.0004.8.A

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- Category III CPT® codes for quantitative analysis of multiparametric-MR (mp-MRI) data with and without an associated diagnostic MRI have been established. Quantitative mp-MRI uses software to analyze tissue physiology of visceral organs and other anatomic structures non-invasively.
- For criteria associated with these types of studies, please see the condition-specific guidelines.

HCPCS Codes (Preface-4.9)

PRF.CD.0004.9.UOH

v2.0.2026

- Healthcare Common Procedure Coding System (HCPCS) codes are utilized by some hospitals in favor of the typical Level-III CPT® codes. These codes are typically 4 digits preceded by a C or S.
  - Many of these codes have similar code descriptions to Level-III CPT® codes (i.e., C8931 – MRA with dye, Spinal Canal; and, CPT® 72159 – MRA Spinal Canal).
  - If cases are submitted with HCPCS codes with similar code descriptions to the typical Level-III CPT® codes, those procedures should be managed in the same manner as the typical CPT® codes.
  - HCPCS code management is discussed further in the applicable guideline sections.
- Requests for many Healthcare Common Procedure Coding System (HCPCS) codes, including non-specific codes such as S8042 (Magnetic resonance imaging [MRI], low-field), should be redirected to a more appropriate and specific CPT® code. Exceptions are noted in the applicable guideline sections.

References (Preface-4)

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Whole-Body Imaging (Preface-5)

Guideline

Whole-Body CT Imaging (Preface-5.1)

PRF.WB.0005.1.UOH

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- Whole-body CT or LifeScan (CT Brain, Chest, Abdomen, and Pelvis) for screening of asymptomatic individuals is not a covered benefit. The performance of whole-body screening CT examinations in healthy individuals does not meet any of the current validity criteria for screening studies and there is no clear documentation of benefit versus radiation risk.
- Whole-body low-dose skeletal CT is supported for oncologic staging in Multiple Myeloma. See **Multiple Myeloma and Plasmacytomas (ONC-25)** in the Oncology Imaging Guidelines.

Whole-Body MR Imaging (Preface-5.2)

PRF.WB.0005.2.A

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- Whole-body MRI (WBMRI) is, with the exception of select cancer predisposition syndromes and autoimmune conditions discussed below, generally not medically necessary at this time due to lack of standardization in imaging technique and lack of evidence that WBMRI improves outcome for any individual disease state.
  - While WBMRI has the benefit of whole-body imaging and lack of radiation exposure, substantial variation still exists in the number of images, type of sequences (STIR vs. diffusion weighting, for example), and contrast agent(s) used.
- Coding considerations:
  - There are no established CPT® or HCPCS codes for reporting WBMRI.
  - WBMRI is at present only reportable using CPT® 76498. All other methods of reporting whole-body MRI are inappropriate including the following:
    - Separate diagnostic MRI codes for multiple individual body parts
    - MRI Bone Marrow Supply (CPT® 77084)
- Disease-specific considerations:
  - Cancer screening:
    - Interval WBMRI is recommended for cancer screening in individuals with select cancer predisposition syndromes. Otherwise, WBMRI has not been shown to improve outcomes for cancer screening.
      - For additional information, see **Li-Fraumeni Syndrome (LFS) (PEDONC-2.2)**, **Neurofibromatosis 1 and 2 (NF1 and NF2) (PEDONC-2.3)**, **Rhabdoid Tumor Predisposition Syndrome (PEDONC-2.11)**, **Hereditary Paraganglioma-Pheochromocytoma (HPP) Syndromes (PEDONC-2.13)**, **Constitutional Mismatch Repair Deficiency (CMMRD or Turcot Syndrome) (PEDONC-2.15)**, **Infantile Myofibromatosis (PEDONC-2.18)**, or **Bloom Syndrome (PEDONC-2.19)** in the Pediatric and Special Populations Oncology Imaging Guidelines.
  - Cancer staging and restaging:
    - Whole-body MRI has limited indications in staging and restaging of multiple myeloma. See **Multiple Myeloma and Plasmacytomas (ONC-25)** in the Oncology Imaging Guidelines for additional details.
    - Evidence has not been published establishing WBMRI as a standard evaluation for any other type of cancer.
  - Autoimmune disease:
    - WBMRI can be approved in some situations for individuals with chronic recurrent multifocal osteomyelitis.

- For additional information, see **Chronic Recurrent Multifocal Osteomyelitis (PEDMS-10.2)** in the Pediatric Musculoskeletal Imaging Guidelines.

PET/MRI (Preface-5.3)

PRF.WB.0005.3.A

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- PET/MRI is generally not medically necessary for a vast majority of oncologic and neurologic conditions due to lack of standardization in imaging technique and interpretation. However, it is medically necessary in select circumstances when the following criteria are met:
  - The individual meets condition-specific guidelines for PET/MRI OR
  - The individual meets ALL of the following:
    - The individual meets guideline criteria for PET/CT, **AND**
    - PET/CT is not available at the treating institution, **AND**
    - The provider requests PET/MRI in lieu of PET/CT
- When the above criteria are met, PET/MRI is reported using the code combination of PET Whole-Body (CPT® 78813) and MRI Unlisted (CPT® 76498). All other methods of reporting PET/MRI are inappropriate.
  - When clinically appropriate, diagnostic MRI codes can be medically necessary at the same time as the PET/MRI code combination.
- For more information, please see the appropriate condition-based guideline.

References (Preface-5)

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8. National Comprehensive Cancer Network® (NCCN®). NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®): Multiple Myeloma. Version 4.2026 - November 26, 2025. Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Multiple Myeloma V4.2026. ©2024 National Comprehensive Cancer Network, Inc. All rights reserved. The NCCN Guidelines® and illustrations herein may not be reproduced in any form for any purpose without the express written permission of the NCCN. To view the most recent and complete version of the NCCN Guidelines®, go online to NCCN.org.

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References (Preface-6)

Guideline

References (Preface-6.1)

References (Preface-6.1)

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- Complete reference citations for the journal articles are embedded within the body of the guidelines and/or may be found on the Reference pages at the end of some guideline sections.

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General Considerations (BR-Preface 1)

Guideline

Abbreviations for Breast Guidelines
General Guidelines (BR-Preface 1.0)
BI-RADS™ Categories Chart (BR-Preface 1.1)
BI-RADS™ Breast Density Categories (BR-Preface 1.2)

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Abbreviations for Breast Guidelines

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Abbreviations for Breast Guidelines	
BI-RADS™	Breast Imaging Reporting and Database System
BRCA	breast cancer gene
CAD	computer-aided detection
CT	computed tomography
CTA	computed tomography angiography
CTV	computed tomography venography
DCIS	ductal carcinoma in situ
FDA	Food and Drug Administration
FDG	fluorodeoxyglucose
FNA	fine needle aspiration
HRCT	high-resolution computed tomography
LCIS	lobular carcinoma in situ
MRA	magnetic resonance angiography
MRI	magnetic resonance imaging
NSM	nipple-sparing mastectomy
PEM	positron-emission mammography

Abbreviations for Breast Guidelines	
PET	positron-emission tomography

General Guidelines (BR-Preface 1.0)

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- A current clinical evaluation since the onset or change in symptoms is usually required prior to considering advanced imaging.
  - A clinical evaluation should include the following:
    - A relevant history and physical examination since the onset or change in symptoms
    - Appropriate laboratory studies and non-advanced imaging modalities, such as mammogram and/or ultrasound
    - Other meaningful contact (telephone call, electronic mail or messaging) since the onset or change in symptoms by an established individual can substitute for a face-to-face clinical evaluation
- Current clinical evaluation is not required prior to screening studies.

Health Equity Considerations

Health equity is the highest level of health for all individuals; health inequity is the avoidable difference in health status or distribution of health resources due to the social conditions in which individuals are born, grow, live, work, and age. Social determinants of health are the conditions in the environment that affect a wide range of health, functioning, and quality of life outcomes and risks. Examples include the following: safe housing, transportation, and neighborhoods; racism, discrimination, and violence; education, job opportunities, and income; access to nutritious foods and physical activity opportunities; access to clean air and water; and language and literacy skills.

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BI-RADS™ Categories Chart (BR-Preface 1.1)

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BI-RADS™ Categories Chart	
Category	**Description**
Category 0: Incomplete	Need additional imaging evaluation or prior mammograms for comparison. Category 0 classification requires that additional imaging study be specified, e.g., ultrasound, additional mammogram view, MRI.
Category 1: Negative	There is nothing to comment on. The breasts are symmetrical and no masses, architectural disturbances, or suspicious calcifications are present.
Category 2: Benign Finding	This is also a negative mammogram, but the interpreter may wish to describe a finding. Involuting, calcified fibroadenomas, multiple secretory calcifications, fat-containing lesions (such as oil cysts, lipomas, galactoceles, and mixed density hamartomas) all have characteristic appearances, and may be labeled with confidence. The interpreter might wish to describe intramammary lymph nodes, implants, etc. while still concluding that there is no mammographic evidence of malignancy.

BI-RADS™ Categories Chart	
Category	**Description**
Category 3: Probably Benign Finding – Short Interval Follow-up Suggested	A finding placed in this category should have a very high probability of being benign. It is not expected to change over the follow-up interval, but the radiologist would prefer to establish its stability. Data is becoming available that sheds light on the efficacy of short interval follow-up. At the present time, most approaches are intuitive. These will likely undergo future modification as more data accrue as to the validity of an approach, the interval required, and the type of findings that should be followed.
Category 4: Suspicious Abnormality – Biopsy Should Be Considered	There are lesions that do not have the characteristic morphologies of breast cancer but have a definite probability of being malignant. The radiologist has sufficient concern to urge a biopsy. If possible, the relevant possibilities should be cited so that the individual and their physician can make the decision on the ultimate course of action.
Category 5: Highly Suggestive of Malignancy – Appropriate Action Should Be Taken	These lesions have a high probability of being cancer and should be biopsied or treated surgically.
Category 6: Known Biopsy-Proven Malignancy – Appropriate Action Should Be Taken	These lesions have been biopsied and are known to be malignant.

BI-RADS™ Breast Density Categories (BR-Preface 1.2)

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BI-RADS™ Breast Density Categories
Category A: Almost entirely fatty
Category B: Scattered fibroglandular densities
Category C: Heterogeneously dense
Category D: Extremely dense

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Breast Ultrasound (BR-1)

Guideline

Breast Ultrasound (BR-1.1)

Breast Ultrasound (BR-1.1)

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- Routine performance of breast ultrasound (US) as stand-alone screening or with screening mammography is not medically necessary.
  - Breast ultrasound is a supplemental screening alternative for high-risk females (as described in **MRI Breast Indications [BR-5]**) with dense breasts on mammography, when MRI Breast without and with contrast cannot be performed. The inability to perform MRI Breast may be because it cannot be tolerated (i.e., insurmountable claustrophobia or body habitus), or there exists a contraindication (i.e., non-MRI compatible implantable devices or an inability to receive MRI contrast).
  - Breast ultrasound (CPT® 76641 or CPT® 76642) is medically necessary when requested by the treating provider to complete the screening process, OR recommended by the radiologist report, OR to address a finding on the mammogram.
- Breast ultrasound (CPT® 76641: unilateral, complete; or, CPT® 76642: unilateral, limited) can be used to further evaluate abnormalities found on mammogram, especially in differentiating cysts from solid lesions.
  - A clinical office visit is not necessary prior to breast ultrasound when an abnormality has been identified on a mammogram.
- BI-RADS™ Cat 3 ultrasound follow-up imaging for stable findings at 6 months:
  - if repeat imaging remains BI-RADS™ 3, repeat at 12 months, 18 months, and 24 months from the date of the initial imaging.
    - After 2 years of stability, the finding should be assessed as benign (Cat 2).
  - if repeat imaging is BI-RADS™ 1 or 2, then imaging reverts to routine per individual's risk profile.
- For breast implant imaging, please see **Breast Implant Evaluation (BR-5.2)**.
- Axilla ultrasound (CPT® 76882)
  - For individuals with clinically suspicious lymph nodes, pre-operative axillary ultrasound with a FNA or biopsy can help identify individuals who have positive nodes.
    - See **Axillary Lymphadenopathy (and Mass) (CH-2.2)** in the Chest Imaging Guidelines.
  - Bilateral should be coded CPT® 76882 x 2.
- US-guided breast biopsy (CPT® 19083) includes the imaging component.
  - Additional lesions should be billed using CPT® 19084.

- Breast ultrasound (CPT® 76641 or CPT® 76642) can be repeated at least 6 months after an US-directed breast biopsy to document successful lesion sampling if histology is benign and non-specific, equivocal or uncertain.
- 3D Reconstruction (CPT® 76376 or CPT® 76377) is **NOT** medically necessary for breast ultrasound. It is commonly requested in conjunction with automated breast ultrasound (ABUS); there is no evidence to support its clinical usefulness.

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MRI Breast Coding (BR-2)

Guideline

MRI Breast Coding (BR-2.1)

MRI Breast Coding (BR-2.1)

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- The use of gadolinium contrast is required for the evaluation of breast parenchyma.
- The use of gadolinium contrast is **NOT** medically necessary for the evaluation of implant integrity in asymptomatic, average-risk individuals.
- Throughout this guideline, when MRI Breast is medically necessary, either **ONE** of the following codes is supported (unless otherwise specified per indication):
  - CPT® 77049 MRI Breast Bilateral, including CAD, without and with contrast
  - HCPCS C8908 MRI Breast Bilateral, without and with contrast
- If the individual meets medical necessity for advanced imaging to assess implant integrity, the appropriate code is CPT® 77047 MRI Breast Bilateral, without contrast.
- Computer-aided detection (CAD) is included with the MRI Breast CPT® 77049 and CPT® 77048 procedures.
  - The use of CAD has little influence on the sensitivity and specificity of MRI Breast interpretation.
  - Since the CAD software automatically performs 3D imaging, CPT® 76376 or CPT® 76377 should **NOT** be used in conjunction with MRI Breast.
- MRI-guided breast biopsy (CPT® 19085) includes the imaging component and the needle placement under MR guidance; CPT® 77021 MR guidance for needle placement is **NOT** an indicated code to bill for a breast biopsy.
  - Additional lesions should be billed using CPT® 19086.
- Intraoperative placement of a breast localization device includes the imaging component. For this reason, CPT® 77021, MR guidance for needle placement, is **NOT** an appropriate code to bill for pre-operative localization.
  - Diagnostic MRI Breast is not medically necessary for localization.

Background and Supporting Information

- Although MRI Breast has superior sensitivity in identifying new unknown malignancies, it carries a significant false positive risk when compared to mammogram and ultrasound. Incidental lesions are seen on 15% of MRI Breast and increase with younger age. The percentage of incidental lesions that turn out to be malignant varies from 3% to 20% depending on the individual population. Cancer is identified by MRI Breast in only 0.7% of those with "inconclusive mammographic lesions."

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Breast Reconstruction (BR-3)

Guideline

Breast Reconstruction (BR-3.1)

Breast Reconstruction (BR-3.1)

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- CTA or MRA of the body part **from which the free-tissue transfer flap is being taken**, can be performed for breast reconstruction pre-operative planning.
  - Examples include:
    - CTA Abdomen and/or Pelvis (CPT® 74175 or CPT® 72191 or CPT® 74174) or MRA Abdomen and/or Pelvis (CPT® 74185 and/or CPT® 72198) for Deep Inferior Epigastric Perforators (DIEP) flap
    - CTA Chest (CPT® 71275) for Thoracodorsal Artery Perforator (TDAP) flap
- Routine use of CTA Chest (CPT® 71275) to evaluate **recipient** vessels is **NOT** medically necessary.
  - **Criteria exception**: In circumstances where there has been previous cardiac/vascular surgery and/or known vascular anomalies in the chest, it may be warranted.
- There is currently insufficient evidence-based data to support the need for routine advanced imaging for TRAM flaps or other flaps performed on a vascular pedicle.

Evidence Discussion

The American College of Radiology (ACR) Appropriateness Criteria® stated that either MRA abdomen and pelvis with and without IV contrast or CTA abdomen and pelvis with IV contrast are usually appropriate for pre-operative planning in individuals undergoing DIEP flap breast reconstruction.[2] Studies have found CTA mapping results in a shorter operative time when compared with no mapping in cases of breast reconstruction with free-tissue flap transfer (e.g., with Deep Inferior Epigastric Perforator (DIEP) flaps).[1]

In contrast, routine use of CTA chest to evaluate for recipient vessels (often the internal mammary vessels) is not medically necessary. This is because a number of studies have found that the anatomy and course of these vessels is largely consistent, and that there is good concordance between surgical and radiological findings – either with ultrasound or CTA.[3] CTA, however, carries with it significant risks, including contrast nephrotoxicity and allergic reactions, and the significantly higher risk of radiation exposure in the chest than in the abdomen.[4] As such, many surgeons will use hand-held Doppler ultrasound either pre- and/or intra-operatively to evaluate recipient vessels. In certain circumstances, such as with previous surgery and/or radiation that would be expected to affect the candidacy of potential recipient vessels, pre-operative CTA of the chest may be considered.

As pedicled flaps, by definition, do not require a microvascular anastomosis and are not disconnected from their blood supply, there is no current evidence to support routine

pre-operative imaging in these individuals. A recent study evaluating the use of pre-operative CTA in individuals undergoing pedicled TRAM flap reconstruction found that there was no significant difference in terms of operative time nor flap loss in individuals who had a pre-operative CTA compared to those who did not.[5]

Per the National Comprehensive Cancer Network (NCCN), "common donor sites for autologous tissue include the abdomen (ie, DIEP, MS TRAM [Muscle-Sparing Transverse Rectus Abdominis Myocutaneous], SIEA [Superficial Inferior Epigastric Artery], free TRAM, pedicled TRAM), gluteal region (ie, SGAP [Superior Gluteal Artery Perforator], IGAP [Inferior Gluteal Artery Perforator]), thigh (ie, TUG [Transverse Upper Gracilis], VUG [Vertical Upper Gracilis], DUG [Diagonal Upper Gracilis], PAP [Profunda Artery Perforator]), or the back (ie, LD [Latissimus Dorsi], TDAP, LAP [Lumbar Artery Perforator])".[46]

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MRI Breast Indications (BR-5)

Guideline

MRI Breast Indications (BR-5.1)
Breast Implant Evaluation (BR-5.2)

MRI Breast Indications (BR-5.1)

BR.ID.0005.1.UOH
v2.0.2026

The determination for breast imaging is made on a case-by-case basis with consideration of the individual's personal and family health history, physical examination findings, and symptoms (presenting or changes).

MRI Breast Considerations

- When MRI Breast imaging is clinically indicated (per the criteria listed in the sections below), an MRI Breast Bilateral without and with contrast (CPT® 77049 or HCPCS C8908) is medically necessary (unless other codes are specified).
- MRI Breast Unilateral is **NOT** clinically supported (except as specified below).
- See **Breast Ultrasound (BR-1)** when there is a contraindication to MRI contrast.
- See **MRI Breast Coding (BR-2)** for MRI-guided breast biopsy.
- See **Breast Cancer (ONC-11)** in the Oncology Imaging Guidelines for imaging indications related to breast cancer as follows:
  - Breast Cancer - Initial work-up/Staging
  - Breast Cancer - Restaging/Recurrence
  - Breast Cancer - Surveillance/Follow-up
  - Annual screening with prior history of breast cancer

MRI Following a Screening Mammogram and/or US in Asymptomatic Individuals

- MRI Breast Bilateral without and with contrast (CPT® 77049 or HCPCS C8908) is medically necessary for **EITHER** of the following:
  - When requested by the treating provider to complete the screening process, OR recommended by the radiologist report, OR to address a finding on the mammogram.
    - When medical necessity is met with one of the indications in the bullet above, any ONE of the following codes are acceptable:
      - CPT® 77046 (MRI Breast Unilateral without contrast)
      - CPT® 77047 (MRI Breast Bilateral without contrast)
      - CPT® 77048 (MRI Breast Unilateral without and with contrast)
      - CPT® 77049 (MRI Breast Bilateral without and with contrast)
      - HCPCS C8903 (MRI Breast Unilateral with contrast)
      - HCPCS C8905 (MRI Breast Unilateral without and with contrast)
      - HCPCS C8906 (MRI Breast Bilateral with contrast)
      - HCPCS C8908 (MRI Breast Bilateral without and with contrast)

  - Documented histopathologic discordance between core-needle biopsy findings and imaging findings. MRI Breast is medically necessary for further evaluation **after** the discordant biopsy (before consideration for surgical management vs. observation).
    - Discordance exists when the biopsy result does not adequately explain the abnormal (BI-RADS™ 4 or 5) findings on mammogram and/or ultrasound.
- For symptomatic individuals, please refer to the following appropriate condition-based guideline:
  - **Nipple Discharge/Galactorrhea (BR-6.1)**
  - **Breast Pain (Mastodynia) (BR-7.1)**
  - **Breast Imaging in Males (BR-9.1)**
  - **Breast Mass (BR-14.1)**
  - **Skin Changes (BR-15.1)**
  - **Nipple Inversion/Retraction (BR-16.1)**
  - **Malignant Phyllodes Tumor/Cystosarcoma Phyllodes (BR-17.1)**
- See **MRI BI-RADS™ 3** section for lesions categorized as BI-RADS™ 3 on MRI.

MRI BI-RADS™ 3

- A probably benign lesion on **MRI** (MRI BI-RADS™ 3) should undergo repeat MRI in 6 months.
  - If repeat imaging remains MRI BI-RADS™ 3, then repeat at 12 months, 18 months, and 24 months from the date of the initial imaging.
    - After 2 years of stability, the finding should be assessed as benign (Cat 2)
  - If repeat imaging is BI-RADS™ 1 or 2, then imaging reverts to routine per individual's risk profile. See **Risk Factors** section.

Post-Biopsy or Attempted Biopsy Imaging

- For lesions initially seen on MRI Breast and that have benign and non-specific, equivocal or uncertain histology (based on a stereotactic, MRI-guided, or US-directed breast biopsy), an MRI Breast Bilateral without and with contrast (CPT® 77049 or HCPCS C8908) is medically necessary at least 6 months after the biopsy to document successful lesion sampling.
- MRI Breast Bilateral without and with contrast (CPT® 77049 or HCPCS C8908) is medically necessary 6 months after attempted MRI-guided breast biopsy, when recommended by a radiologist, due to targeted lesion not visualized at the time of the procedure.

Risk Factors

- Routine MRI Breast following bilateral mastectomy is **NOT** medically necessary (even if high-risk screening criteria may otherwise be met and/or nipple-sparing mastectomy was done).

- Annual MRI Breast screening with MRI Breast Bilateral without and with contrast (CPT® 77049 or HCPCS C8908) is medically necessary for individuals meeting the high-risk criteria in the table below (for male breast imaging, please see **Breast Imaging in Males (BR-9.1)**):

High-Risk Indications	Age at which screening can start**
Genetic Mutations:*	
Li-Fraumeni (p53)	20
BRCA 1 or 2	25
STK11, Peutz-Jeghers syndrome (PJS), PTEN Mutation (Cowden Syndrome), CDH1, NF1, PALB2, ATM, CHEK2	30**
BARD1, RAD51C, RAD51D	40**
Personal history of atypia/LCIS/breast cancer:	
ADH, ALH, LCIS	At diagnosis but not prior to age 25
Personal history of breast cancer at or before the age of 50	At diagnosis
Family history:	
If the individual has **NOT** been tested for BRCA mutation **and** there is a first-degree relative (parent, sibling, child; half-siblings are considered second-degree relatives) with BRCA 1 or BRCA 2 mutation. Annual screening is **NOT** medically necessary if the individual has been tested and is negative for BRCA 1 or BRCA 2 mutation unless they meet other criteria.	40**
Two or more first-degree relatives with breast or ovarian cancer	40**
One first-degree relative with breast cancer or ovarian cancer that was diagnosed ≤ age 50	40**
One first-degree relative with bilateral breast cancer, or both breast and ovarian cancer	40**
A first- or second-degree male relative (father, brother/half-brother, uncle, grandfather) diagnosed with breast cancer	40**
Elevated clinical lifetime-risk:	

High-Risk Indications	Age at which screening can start**
Clinical lifetime-risk estimated at greater than or equal to 20% as calculated by one of the following models: • Gail (National Cancer Institute (NCI)) • Tyrer-Cuzick (International Breast Cancer Intervention Study (IBIS)) • The Breast Cancer Surveillance Consortium (BCSC) • Breast and Ovarian Analysis of Disease Incidence and Carrier Estimation Algorithm (BOADICEA)/CanRisk • BRCAPRO Model	40**
Personal history of radiation therapy when younger than age 30:	
Radiation to chest, whole lung, mediastinum, axilla, mantle (including mini mantle or extended mantle), total or subtotal lymphoid irradiation or total body irradiation (TBI)	25 or 8 years after completion of radiation therapy *whichever comes later*
Breast Density:	
Heterogeneously Dense Breasts (Category C) or Extremely Dense Breasts (Category D) with no additional risk factors	40

*The following have unknown or insufficient evidence of breast cancer risk and additional MRI screening is NOT indicated at this time: MSH2, MLH1, MSH6, PMS2, EPCAM, NBN, genetic variants of unknown significance, genetic variants favoring polymorphism, and genetic variants of intermediate penetrance. Any gene mutation not specified in the table above has not currently been found to have sufficient evidence to support surveillance with MRI.

OR 10 years prior to the age of diagnosis of the earliest relative with breast cancer (first-, second-, and third-degree relatives) *whichever comes first*, **but not before age 25

Background and Supporting Information

- myRisk® Hereditary Cancer (Myriad Genetics, Inc.) is not accepted as a risk calculator to determine high-risk for breast cancer.

Evidence Discussion

High Risk Indications

Li Fraumeni Syndrome is associated with an increased incidence of premenopausal breast cancer, with the median age of diagnosis being in the early 30s.[10] Accordingly, the National Institute for Health and Care Excellence (NICE)[9] recommends annual MRI screening beginning at age 20.[9]

While the American Cancer Society (ACS) has found that there is not enough evidence to make a recommendation for or against screening MRI in these populations[6], the NCCN has recommended annual breast MRI for those with ADH, ALH or LCIS who have at least a 20% residual lifetime risk of developing breast cancer. Screening could begin at the age of diagnosis of ADH or lobular neoplasia, but not before the age of 25. They further note that the residual lifetime risk calculation depends on the age at diagnosis.[7]

BRCA1 and *2* are associated with a risk of developing breast cancer >60%.[8] The NCCN guidelines recommended starting MRI screening at the age of 25.[8]

STK11 mutations are associated with a 32%-54% risk of developing primary breast cancer. *CDH1* and *PALB2* mutations each confer a risk of 41%-60% of developing breast cancer. NCCN guidelines recommended starting MRI screening in these individuals at age 30. For individuals with NF1, the risk of developing breast cancer is 20%-40%. NCCN guidelines recommended considering annual MRI screening from ages 30-50. *ATM* mutations are associated with a 20%-30% risk of developing breast cancer, and *CHEK2* mutations similarly are associated with a 20%-40% risk. NCCN guidelines suggested consideration of annual breast MRI starting at age 30-35 in both of these groups. *PTEN* mutations are associated with a 40%-60% risk of developing breast cancer. While NCCN guidelines are silent on breast cancer screening for this population, ESMO guidelines recommended starting annual MRI at the age of 30.[8,11]

BARD1, *RAD51C* and *RAD51D* are each associated with a 17%-30% risk of developing breast cancer. The NCCN guidelines recommended considering an annual breast MRI starting at age 40.[8]

However, mutations and variants with a <15% absolute risk of developing breast cancer lack sufficient evidence to suggest that screening MRI would be beneficial. Therefore, the NCCN did not recommend screening MRI for these individuals unless other risks are present.[8]

The ACR Appropriateness Criteria® for "Female Breast Cancer Screening" had noted that "some females with a personal history of breast cancer may also fit into the high-risk category, particularly those diagnosed before 50 year of age...".[42] They also went on to state that these women may have a greater than 20% estimated lifetime risk of another breast cancer diagnosis.[42] The NCCN also noted that MRI Breast for screening is recommended annually for individuals diagnosed with breast cancer at or before age 50[46] who have not undergone bilateral mastectomy (see the "**Postmastectomy Imaging**" section below).

The ACS considered individuals who have a first-degree relative with a BRCA 1 or 2 gene mutation and who have not been tested themselves to be at high risk. They recommended an annual MRI screening starting at age 30.[6] On the other hand, NCCN guidelines suggested that untested individuals with a first-degree relative with a BRCA 1 or 2 mutation should start screening either 10 years before the youngest family member was diagnosed with breast cancer, but not before age 25, or at age 40, whichever comes first.[7]

Per NCCN recommendations, BRCAPRO, Tyrer- Cuzick, Breast Cancer Surveillance Consortium (BCSC), and Breast and Ovarian Analysis of Disease Incidence and Carrier Estimation Algorithm (BOADICEA)/CanRisk are appropriate models used to calculate clinical lifetime-risk.[46]

The NCCN has issued guidance that recommended individuals with extremely dense breast tissue on mammogram begin screening with MRI Breast at age 50, but also notes that "consideration can be given to start at age 40 based on individual risk factors".[7] The Updated Recommendations from ACR also addressed the use of MRI Breast in individuals with dense breast tissue for supplemental screening. They did not differentiate between heterogeneously and extremely dense breasts in their recommendation and instead, recommended screening for those with dense breasts starting at age forty.[84] ACR considers dense breasts to be heterogeneously dense (Category C) and extremely dense (Category D).[85]

MRI utilizes a magnetic field and radio waves with computer processing to produce detailed images whereas CT uses ionizing radiation. Radiation dosages vary based on many factors and can be harmful to tissues. Thus, from a radiation safety perspective, MRI should be utilized when appropriate and supported by existing literature; however, the NCCN also acknowledged potential harms of MRI use, such as increased false positives, increased recall, and increased benign biopsies.[7]

Post-Biopsy or Attempted Biopsy Imaging

A study conducted by Pinnamaneni et al showed that of the 89 biopsies that were canceled secondary to nonvisulaization, 74% of lesions resolved by 6 month follow-up, however 1.9% yielded carcinoma at the 6 month follow-up. Pinnamaneni et al. concluded that, "the majority of canceled MRI-guided biopsy lesions resolved on later follow-up; however, because of the small possibility of a missed malignancy, follow-up MRI imaging at 6 months is recommended".[90]

The initial evaluation of individuals who present with a suspicious finding on breast imaging or a palpable mass upon examination involves a biopsy (percutaneous or surgical if percutaneous is not feasible). If the biopsy results are discordant with the imaging findings, an MRI for further evaluation is supported.[16]

Postmastectomy Imaging

According to the ACR Appropriateness Criteria® for "Imaging after Mastectomy and Breast Reconstruction", there is not enough evidence to support MRI imaging for breast cancer screening following a bilateral mastectomy.[73] In addition, in a study by Weed et al, it was found that "the use of surveillance MRI after NSM [nipple-sparing mastectomy] lead to increased rates of biopsy without improvement in overall survival in our study".[88]

Breast Implant Evaluation (BR-5.2)

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Breast Implant Imaging

- Breast MRI is **NOT** medically necessary for evaluation of capsular contracture.
- Imaging for routine surveillance and/or suspected rupture of breast implants is dependent upon the type of implant. Please see below.

SALINE

Asymptomatic Screening

- For all ages, routine imaging is not medically necessary.

Exam Equivocal for Rupture

- If less than 30 years old, breast ultrasound (CPT® 76641 or CPT® 76642) is medically necessary.
- If 30 years old or older, breast ultrasound (CPT® 76641 or CPT® 76642) or diagnostic mammogram is medically necessary.
- If breast ultrasound or diagnostic mammogram results are indeterminate for saline implant rupture, additional imaging with MRI Breast Bilateral without contrast (CPT® 77047) is medically necessary for further evaluation.

SILICONE

Asymptomatic Screening

- For all ages, if it is less than 5 years since the implants were placed, routine advanced imaging is not medically necessary.
- For all ages, if it has been 5 years or more since the implants were placed, breast ultrasound (CPT® 76641 or CPT® 76642) is considered medically necessary.
  - Further evaluation with MRI Breast Bilateral without contrast (CPT® 77047) is medically necessary if the breast ultrasound is indeterminate.
  - Repeat breast ultrasounds (CPT® 76641 or CPT® 76642) can be done every 2 to 3 years after initial negative imaging.

Exam Equivocal for Rupture

- For all ages, breast ultrasound (CPT® 76641 or CPT® 76642) or diagnostic mammogram or MRI Breast Bilateral without contrast (CPT® 77047) is medically necessary.

- If breast ultrasound (CPT® 76641 or CPT® 76642) or diagnostic mammogram results are indeterminate for silicone implant rupture, additional imaging with MRI Breast Bilateral without contrast (CPT® 77047) is medically necessary for further evaluation.

Evidence Discussion

Breast Implant Evaluation

The two types of breast implants include saline and silicone. Saline implant rupture is more clinically apparent, since the body readily resorbs the leaking saline and the implant shell appears deflated on exam.[13] Thus, there is no role for MRI Breast(s) in asymptomatic women with saline implants.[14] However, if the exam is equivocal for rupture, initial imaging supported by the ACR includes diagnostic mammogram and/or ultrasound in individuals >30 years old. In those <30 years of age, diagnostic mammogram is not typically performed and ultrasound is the initial imaging of choice.[14]

An exam is not as reliable for detecting the rupture of silicone implants as it is for saline implants. Therefore, if an exam is equivocal for rupture, imaging with a combination of ultrasound, mammogram, and/or MRI of the breast (with the choice of mammogram depending upon age) is appropriate.[15]

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Nipple Discharge/ Galactorrhea (BR-6)

Guideline

Nipple Discharge/Galactorrhea (BR-6.1)

Nipple Discharge/Galactorrhea (BR-6.1)

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Physiologic nipple discharge (non-spontaneous or multi-duct, no suspicious findings on clinical exam)

- For individuals less than 40 years old, imaging is not medically necessary.
- For individuals 40 years old and older, a screening mammogram is medically necessary.
- If there is concern for a prolactinoma, please refer to **Pituitary, Sella, Hypothalamus (HD-19.1)**.

Pathologic nipple discharge (spontaneous, unilateral, single duct, clear or bloody, persistent and reproducible)

- For individuals less than 30 years old, breast ultrasound (CPT® 76641 or CPT® 76642) with or without a diagnostic mammogram is the medically necessary initial imaging.
  - If the breast ultrasound or diagnostic mammogram (if performed) is a BI-RADS™ category 1-3, a MRI Breast Bilateral without and with contrast (CPT® 77049 or HCPCS C8908) is medically necessary.
  - If the breast ultrasound or diagnostic mammogram (if performed) are a BI-RADS™ category 4 or 5, a MRI Breast is **NOT** medically necessary. Biopsy is recommended in these circumstances.
- For individuals 30 years old and older, breast ultrasound (CPT® 76641 or CPT® 76642) and diagnostic mammogram are the medically necessary initial imaging.
  - If the breast ultrasound or diagnostic mammogram is a BI-RADS™ category 1-3, a MRI Breast Bilateral without and with contrast (CPT® 77049 or HCPCS C8908) is medically necessary.
  - If the breast ultrasound or diagnostic mammogram are a BI-RADS™ category 4 or 5, a Breast MRI is **NOT** medically necessary. Biopsy is recommended in these circumstances.

Background and Supporting Information

- Physiologic nipple discharge is predominantly bilateral but may be unilateral. It is commonly multi-duct. It is predominantly milky but may be white or a variety of colors including serous, yellow, green, brown, or gray. Evaluation for hyperprolactinemia can be considered.
- For milky discharge, prolactin and TSH levels are recommended to diagnose prolactinoma; pituitary imaging is not needed if normal serum Prolactin.

- Pathologic nipple discharge is defined as unilateral, bloody or serous, arising from a single duct, persistent, and spontaneous.

Evidence Discussion

No specific breast imaging is used for evaluation of physiologic discharge, other than usual screening mammogram in the appropriate age group. Otherwise, the evaluation is medical, including lab studies to rule out endocrine etiology. In a study of 13,443 women with nipple discharge, 316 (2.3%) had nonspontaneous discharge, only 1 (0.3%) of whom had carcinoma.[19] Similarly, a retrospective review of 273 women who underwent diagnostic and therapeutic surgery for nipple discharge found no malignancies in those presenting with physiologic nipple discharge.[20]

The evaluation of pathologic nipple discharge is aimed at determining if there is an underlying intraductal papilloma, high-risk lesion, or a malignancy. Larger studies estimate the rate of malignancy or high-risk histopathologic lesions to be 11% to 16% of individuals with pathologic nipple discharge.[22] Initial radiographic evaluation includes both diagnostic mammography and targeted breast ultrasound. If both are non-diagnostic, then MRI is the next imaging modality used for evaluation. Contrast-enhanced MRI has demonstrated sensitivities of 93 to 100 percent for invasive cancers as well as benign papillary lesions.[23]

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Breast Pain (Mastodynia) (BR-7)

Guideline

Breast Pain (Mastodynia) (BR-7.1)

Breast Pain (Mastodynia) (BR-7.1)

BR.PA.0007.1.A
v2.0.2026

- Evaluation of breast pain requires a history and physical exam.
  - When breast pain is present with another breast symptom such as nipple discharge, skin change(s), or palpable mass, the imaging should be done in accordance with the accompanying symptom's guideline rather than this guideline for breast pain.
- If pain is cyclical and/or generalized across more than one quadrant of the breast, an up-to-date screening mammogram is medically necessary.
- If pain is focal and the individual is 30 years old or older, diagnostic mammogram and breast ultrasound (CPT® 76641 or CPT® 76642) are medically necessary as the initial imaging.
- If pain is focal and the individual is less than 30 years old, breast ultrasound (CPT® 76641 or CPT® 76642) is medically necessary as the initial imaging.
- Advanced imaging is **NOT** medically necessary in individuals with breast pain or breast abscesses.

Background and Supporting Information

- The risk of malignancy following a negative clinical examination (clinical breast exam, mammogram, ultrasound) has been estimated to be only 0.5%.

Evidence Discussion

In a study of 2820 individuals presenting with breast pain, the cancer detection rate in those who underwent breast imaging was found to be 0.09%, 1% and 1.4% in individuals under the age of 40, 40-49 and 50 years of age or older, respectively.[24] Similarly, in a case control study comparing 987 women with painful breasts and 987 controls, the prevalence of breast cancer was similar between the two groups (0.8% vs. 0.7%, respectively).[25] Given these data, in the absence of other factors, the ACR recommends against the use of MRI in individuals with breast pain.[26]

Breast abscesses can present with a variety of etiologies. In a review of various inflammatory diseases of the breast, Scott et al points to ultrasound as the appropriate initial imaging. It is also noted that while diagnostic mammogram can be done, it may not be very beneficial in all etiologies.[92]

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Alternative Breast Imaging Approaches (BR-8)

Guideline

Alternative Breast Imaging Approaches (BR-8.1)

Alternative Breast Imaging Approaches (BR-8.1)

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Molecular Breast Imaging (MBI)

- Molecular Breast Imaging (CPT® 78800) is supported in individuals who meet criteria for breast cancer screening with MRI (per **BR-5**) but for whom MRI is contraindicated.
  - See "**MRI Following a Screening Mammogram and/or US in Asymptomatic Individuals**" and "**Risk Factors**" below.

MRI Following a Screening Mammogram and/or US in Asymptomatic Individuals

- MRI Breast Bilateral without and with contrast (CPT® 77049 or HCPCS C8908) is medically necessary for **ANY** of the following:
  - when requested by the treating provider to complete the screening process, OR
  - recommended by the radiologist report, OR
  - to address a finding on the mammogram

Risk Factors

- Routine MRI Breast following bilateral mastectomy is **NOT** medically necessary (even if high-risk screening criteria may otherwise be met and/or nipple-sparing mastectomy was done).
- Annual MRI Breast screening with MRI Breast Bilateral without and with contrast (CPT® 77049 or HCPCS C8908) is medically necessary for individuals meeting the high-risk criteria in the table below (for male breast imaging, please see **Breast Imaging in Males (BR-9.1)**):

High-Risk Indications	Age at which screening can start**
Genetic Mutations:*	
Li-Fraumeni (p53)	20
BRCA 1 or 2	25
STK11, Peutz-Jeghers syndrome (PJS), PTEN Mutation (Cowden Syndrome), CDH1, NF1, PALB2, ATM, CHEK2	30**

High-Risk Indications	Age at which screening can start**
BARD1, RAD51C, RAD51D	40**
Personal history of atypia/LCIS/breast cancer:	
ADH, ALH, LCIS	At diagnosis but not prior to age 25
Personal history of breast cancer at or before the age of 50	At diagnosis
Family history:	
If the individual has **NOT** been tested for BRCA mutation **and** there is a first-degree relative (parent, sibling, child; half-siblings are considered second-degree relatives) with BRCA 1 or BRCA 2 mutation. Annual screening is **NOT** medically necessary if the individual has been tested and is negative for BRCA 1 or BRCA 2 mutation unless they meet other criteria.	40**
Two or more first-degree relatives with breast or ovarian cancer	40**
One first-degree relative with breast cancer or ovarian cancer that was diagnosed ≤ age 50	40**
One first-degree relative with bilateral breast cancer, or both breast and ovarian cancer	40**
A first- or second-degree male relative (father, brother/half-brother, uncle, grandfather) diagnosed with breast cancer	40**
Elevated clinical lifetime-risk:	
Clinical lifetime-risk estimated at greater than or equal to 20% as calculated by one of the following models: • Gail (National Cancer Institute (NCI)) • Tyrer-Cuzick (International Breast Cancer Intervention Study (IBIS)) • The Breast Cancer Surveillance Consortium (BCSC) • Breast and Ovarian Analysis of Disease Incidence and Carrier Estimation Algorithm (BOADICEA)/CanRisk • BRCAPRO Model	40**
Personal history of radiation therapy when younger than age 30:	

High-Risk Indications	Age at which screening can start**
Radiation to chest, whole lung, mediastinum, axilla, mantle (including mini mantle or extended mantle), total or subtotal lymphoid irradiation or total body irradiation (TBI)	25 or 8 years after completion of radiation therapy *whichever comes later*
Breast Density:	
Heterogeneously Dense Breasts (Category C) or Extremely Dense Breasts (Category D) with no additional risk factors	40

*The following have unknown or insufficient evidence of breast cancer risk and additional MRI screening is NOT medically necessary at this time: MSH2, MLH1, MSH6, PMS2, EPCAM, NBN, genetic variants of unknown significance, genetic variants favoring polymorphism, and genetic variants of intermediate penetrance. Any gene mutation not specified in the table above has not currently been found to have sufficient evidence to support surveillance with MRI.

OR 10 years prior to the age of diagnosis of the earliest relative with breast cancer (first-, second-, and third-degree relatives) *whichever comes first*, **but not before age 25

Other Alternative Breast Imaging Techniques

Other alternative breast imaging techniques may have FDA approval, but they are usually not appropriate and not supported with respect to **BOTH** screening and diagnosis of breast cancer. These include the following:

- Nuclear breast imaging, including:
  - Scintimammography
  - Breast specific gamma imaging (BSGI)
- PET Mammography (PEM)
- Thermography
- Impedance Mammography
- Other techniques to detect oxygen consumption, light absorption, microwave transmission, nitrous oxide production
- CT Breast (CPT® 0633T, CPT® 0634T, CPT® 0635T, CPT® 0636T, CPT® 0637T, or CPT® 0638T)
- Cone Beam CT Breast

Background and Supporting Information

- CT Breast
  - CT Breast is evolving and currently being studied as a mode of breast cancer detection. It remains under investigation, and is not to be used in lieu of conventional breast imaging modalities.
- Positron-Emission Mammography
  - There is currently insufficient data available to generate appropriateness criteria for this modality, and this procedure is usually not appropriate and not supported.
    - High-resolution positron-emission mammography (PEM) by Naviscan™ PET Systems, also referred to as Naviscan™ or PET mammography, performs high-resolution metabolic imaging for breast cancer using an FDG tracer. The PEM detectors are integrated into a conventional mammography system, allowing acquisition of the emission images immediately after the mammogram.
    - Requesting providers often ask for PEM as CPT® 78811 or "PET scan of the breast."
    - The spatial resolution of this technique is at the individual duct level (1.5 mm) and allows visualization of intraductal as well as invasive breast cancers. This technique is especially adept at detecting ductal carcinoma in situ.
    - Early clinical trials have shown high clinical accuracy in characterizing lesions identified as suspicious on conventional imaging or physical examination, as well as in detecting incidental breast cancers not seen on other imaging modalities.
    - A prospective multi-center clinical trial for females with newly diagnosed breast cancer anticipating breast-conservation surgery was performed. These females underwent both high-resolution PEM imaging and breast MRI. Results showed that PEM and MRI had comparable breast-level sensitivity, although MRI had greater lesion-level sensitivity and more accurately depicted the need for mastectomy. PEM had greater specificity at the breast and lesion levels. Of these, 3.6% of the females had tumors seen only with PEM.
    - The radiation exposure from a PEM study is 23 times higher than for digital mammography.

Evidence Discussion

There is limited data regarding the use of MBI in individuals of average breast cancer risk. However, in those classified as high risk (lifetime risk ≥ 20%), the NCCN guideline supported MBI for those who met criteria for supplemental breast MRI, but who could not undergo MRI.[7]

There is no data to support other alternative breast imaging techniques. They are not supported for screening by the ACR, NCCN, or other breast society guidelines. As more data becomes available, the guidelines will be updated accordingly.

The ACS considers individuals who have a first-degree relative with a BRCA 1 or 2 gene mutation and who have not been tested themselves to be at high risk. They recommended an annual MRI screening starting at age 30.[6] On the other hand, NCCN guidelines suggested that untested individuals with a first-degree relative with a BRCA 1 or 2 mutation should start screening either 10 years before the youngest family member was diagnosed with breast cancer, but not before age 25, or at age 40, whichever comes first.[7]

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Breast Imaging in Males (BR-9)

Guideline

Breast Imaging in Males (BR-9.1)

Breast Imaging in Males (BR-9.1)

BR.MA.0009.1.UOH
v2.0.2026

See **Breast Ultrasound (BR-1)**

Screening for Males at Increased Risk for Breast Cancer

- A clinical breast exam every 12 months is medically necessary.
- Annual mammogram, especially for those with *BRCA2* P/LP variants in whom the lifetime risk of breast cancer is up to 7%, starting at age 50 or 10 years before the earliest known male breast cancer in the family, is medically necessary.
    - MRI of the male breast is not medically necessary given the paucity of evidence supporting its efficacy in male breast disease.

Symptomatic Male Breast Imaging

- Diagnostic Mammogram and/or breast ultrasound (CPT® 76641 or CPT® 76642) is medically necessary for evaluation of the symptomatic male breast and the preferred method depends on age and the suspected etiology of disease.
    - MRI of the male breast is not medically necessary given the paucity of evidence supporting its efficacy in male breast disease.

Background and Supporting Information

- Breast cancer in males presents as a mass, skin/nipple change, or pathologic nipple discharge.

Evidence Discussion

Breast cancer management in males is similar to females. NCCN guidelines recommended that, for males presenting with bilateral breast enlargement consistent with gynecomastia or pseudogynecomastia, reassurance with clinical management of the presumed cause (e.g., drug induced, hypogonadism, hyperthyroidism, etc) is all that was needed. For males presenting with palpable symptoms not explained by gynecomastia, or for those presenting with bloody nipple discharge, work up should include mammography and ultrasound, followed by core needle biopsy if these studies should be found to be BIRADS™ category 4-5.[7] Mammography has been found to be accurate in distinguishing benign from malignant lesions in men, and has a sensitivity and specificity of 92% and 90%, respectively, such that more advanced imaging is generally not required.[27]

The NCCN noted support of annual mammogram for males, noting it is especially recommended in those "with *BRCA2* P/LP variants in whom the lifetime risk of breast

cancer is up to 7%, starting at age 50 or 10 years before the earliest known male breast cancer in the family (whichever comes first)".[8]

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Breast Evaluation in Pregnant or Lactating Females (BR-10)

Guideline

Breast Evaluation in Pregnant or Lactating Females (BR-10.1)

Breast Evaluation in Pregnant or Lactating Females (BR-10.1)

BR.PR.0010.1.A

v2.0.2026

- Breast ultrasound (CPT® 76641 or CPT® 76642) is first-line imaging in pregnant and lactating females.
- If pregnant/lactating female has a palpable mass **OR** has persistent unilateral bloody nipple discharge and the ultrasound is negative or suspicious, follow with diagnostic mammogram (with lead abdominal shielding).
- IV Gadolinium is required with MRI to evaluate breast parenchyma but is contraindicated in pregnancy. Biopsy, rather than advanced imaging, is recommended after inconclusive mammogram and ultrasound.
- MRI Breast Bilateral without and with contrast (CPT® 77049 or HCPCS C8908) is supported for evaluation in lactating women if criteria are met otherwise (see **BR-5.1**).
- For imaging requests related to a breast abscess, please see **Breast Pain (Mastodynia) (BR-7.1)**.

Evidence Discussion

Pregnancy-associated breast cancer (PABC) is defined as breast cancer diagnosed during pregnancy, throughout the first postpartum year, or during lactation.

The most common presentation of PABC is a palpable mass, but >80% of palpable masses that are biopsied in pregnant and breastfeeding women are benign.[80]

Given the difficulty examining the pregnant and lactating individual, diagnostic breast imaging is crucial in characterizing the features of a palpable mass. In up to 20% of lactating women, isolated bloody nipple discharge without an associated mass can occur, most commonly due to benign etiologies. However, if persistent, bloody nipple discharge can also be a sign of breast cancer. Diagnostic imaging is also recommended in these women.

Ultrasound has the highest sensitivity for the diagnosis of PABC.[81,82] Additionally, both pregnant and lactating woman are predominantly young and have dense breast tissue. Therefore the sensitivity of mammography decreases in these women. For that reason, ultrasound is the first-line imaging in pregnant and lactating women.[82]

Advanced imaging with breast MRI has a limited role in pregnant women. The IV administration of gadolinium is contraindicated. If there is clinical suspicion of malignancy, a biopsy is the next step in evaluation.[61,83]

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3D Rendering (BR-13)

Guideline

3D Rendering (BR-13.1)

3D Rendering (BR-13.1)

BR.TD.0013.1.A

v2.0.2026

- 3D rendering (CPT® 76376 or CPT® 76377) should **NOT** be used in conjunction with **ANY** 3D mammography code.
- 3D rendering (CPT® 76376 or CPT® 76377) is **NOT** indicated for breast ultrasound. It is commonly requested in conjunction with automated breast ultrasound (ABUS); there is no evidence to support its clinical usefulness.
- 3D rendering (CPT® 76376 or CPT® 76377) should **NOT** be used in conjunction with MRI Breast.

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Breast Mass (BR-14)

Guideline

Breast Mass (BR-14.1)

Breast Mass (BR-14.1)

BR.MS.0014.1.A

v2.0.2026

- MRI Breast is **NOT** medically necessary to determine biopsy recommendations for suspicious or indeterminate lesion(s) that can be readily biopsied on physical exam, such as palpable masses.
- For individuals 30 years old and older, diagnostic mammogram and breast ultrasound (CPT® 76641 or CPT® 76642) are medically necessary as the initial imaging.
  - If the breast ultrasound or diagnostic mammogram is a BI-RADS™ category 4 or 5, a Breast MRI is NOT medically necessary. Biopsy is recommended in these circumstances.
- For individuals less than 30 years old, breast ultrasound (CPT® 76641 or CPT® 76642) is medically necessary as the initial imaging.
  - If the breast ultrasound or diagnostic mammogram is a BI-RADS™ category 4 or 5, a Breast MRI is NOT medically necessary. Biopsy is recommended in these circumstances.

Evidence Discussion

According to the ACR Appropriateness Criteria® for "Palpable Breast Masses" there is a paucity of evidence to support the use of MRI Breast in the evaluation of a palpable mass regardless of what the BI-RADS™ is on mammogram.[93]

NCCN guidance for imaging of a palpable breast mass supports the use of diagnostic mammogram and/or ultrasound (preferred modality is dependent on age).[7]

Imaging with BI-RADS™ assessment of category 4 require biopsy. MRI is not supported prior to biopsy.[17]

Imaging with BI-RADS™ assessment of category 3 require short-term follow up imaging: at 6, 12, and 24 months.[18]

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Skin Changes (BR-15)

Guideline

Skin Changes (BR-15.1)

Skin Changes (BR-15.1)

BR.SC.0015.1.A

v2.0.2026

- Diagnostic mammogram with or without breast ultrasound (CPT® 76641 or CPT® 76642) is the medically necessary initial imaging.
  - If the diagnostic mammogram or breast ultrasound (if performed) is a BI-RADS™ category 1-3, a MRI Breast Bilateral without and with contrast (CPT® 77049 or HCPCS C8908) is medically necessary.
  - If the diagnostic mammogram or breast ultrasound (if performed) is a BI-RADS™ category 4 or 5, a MRI Breast is NOT medically necessary. Biopsy is recommended in these circumstances.
    - If a core needle biopsy is performed and is benign, a MRI Breast Bilateral without and with contrast (CPT® 77049 or HCPCS C8908) is medically necessary.
- Advanced imaging is **NOT** medically necessary in individuals with breast abscesses.

Evidence Discussion

NCCN guidance for imaging of skin changes of the breast supports the use of diagnostic mammogram with or without breast ultrasound as the initial imaging. Additional imaging with MRI Breast is appropriate for BI-RADS™ 1, 2, or 3 on the initial imaging.[7]

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Nipple Inversion/ Retraction (BR-16)

Guideline

Nipple Inversion/Retraction (BR-16.1)

Nipple Inversion/Retraction (BR-16.1)

BR.NI.0016.1.A
v2.0.2026

This guideline is only to be used when there is no palpable mass. If there is an associated palpable mass, please see **Palpable Mass (BR-14.1)**.

Congenital/Life-Long

- If there are no recent changes, only standard screening is recommended.
- If there are recent changes, see Acquired/New Onset below.

Acquired/New Onset

- If nipple discharge is present, please see **Nipple Discharge/Galactorrhea (BR-6.1)**.
- If skin changes are present, please see **Skin Changes (BR-15.1)**.
- For individuals 30 years old and older, diagnostic mammogram and breast ultrasound (CPT® 76641 or CPT® 76642) are medically necessary for the initial imaging.
  - If the breast ultrasound or diagnostic mammogram is a BI-RADS™ category 1, 2, or 3, but is clinically suspicious, a MRI Breast Bilateral without and with contrast (CPT® 77049 or HCPCS C8908) is medically necessary.
  - If the breast ultrasound or diagnostic mammogram is a BI-RADS™ category 4 or 5, a Breast MRI is NOT medically necessary. Biopsy is recommended in these circumstances.
- For individuals less than 30 years old, breast ultrasound (CPT® 76641 or CPT® 76642) with or without diagnostic mammogram is medically necessary for the initial imaging.
  - If the breast ultrasound or diagnostic mammogram is a BI-RADS™ category 1, 2, or 3, but is clinically suspicious, a MRI Breast Bilateral without and with (CPT® 77049 or HCPCS C8908) is medically necessary.
  - If the breast ultrasound or diagnostic mammogram is a BI-RADS™ category 4 or 5, a Breast MRI is NOT medically necessary. Biopsy is recommended in these circumstances.

Evidence Discussion

NCCN guidance for imaging of nipple inversion/retraction supports the use of diagnostic mammogram and/or breast ultrasound as the initial imaging (preferred modality is dependent on age). Additional imaging with MRI Breast is dependent on the BI-RADS™ category of the initial imaging as well as level of clinical suspicion.[7]

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Malignant Phyllodes Tumor/Cystosarcoma Phyllodes (BR-17)

Guideline

Malignant Phyllodes Tumor/Cystosarcoma Phyllodes (BR-17.1)

Malignant Phyllodes Tumor/ Cystosarcoma Phyllodes (BR-17.1)

BR.PT.0017.1.A

v2.0.2026

- MRI Breast Bilateral without and with contrast (CPT® 77049 or HCPCS C8908) is medically necessary pre-operatively to establish extent of disease where a diagnosis of malignant phyllodes tumor has previously been established by tissue diagnosis.

Background and Supporting Information

- Phyllodes tumor is usually benign and has clinical characteristics of fibroadenoma, although they may exhibit rapid growth. MRI Breast has not been shown to be of value in distinguishing fibroadenoma from phyllodes tumor.
- Diagnosis is made by tissue diagnosis (percutaneous core biopsy or excisional biopsy). FNA biopsy is inaccurate in phyllodes tumor diagnosis and is not recommended.
- Treatment is wide local excision. Axillary lymph node dissection is not necessary. It has a predilection for local recurrence following local excision.
- If biopsy establishes a diagnosis of **malignant phyllodes** (cystosarcoma phyllodes), it should be treated as a soft tissue sarcoma. See **Sarcomas – Bone, Soft Tissue, and GIST (ONC-12)** in the Oncology Imaging Guidelines.

Evidence Discussion

Phyllodes tumors of the breast are usually benign, fibroepithelial lesions that have a range of biologic behaviors. Diagnosis is made by percutaneous core biopsy or excisional biopsy. MRI Breast has not been shown to be of value in distinguishing phyllodes tumor from fibroadenoma. However, malignant phyllodes have the propensity to metastasize. Thus, MRI is supported in malignant phyllodes to determine the extent of disease and resectability.[12]

References (BR)

Guideline

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Instructions for Use

This Medical Policy provides assistance in interpreting United HealthCare Services, Inc. standard benefit plans. When deciding coverage, the federal, state (Ohio Administrative Code [OAC]) or contractual requirements for benefit plan coverage must be referenced as the terms of the federal, state (OAC) or contractual requirements for benefit plan coverage may differ from the standard benefit plan. In the event of a conflict, the federal, state (OAC) or contractual requirements for benefit plan coverage govern.

Before using this policy, please check the federal, state (OAC) or contractual requirements for benefit plan coverage. United HealthCare Services, Inc. reserves the right to modify its Policies and Guidelines as necessary. This Medical Policy is provided for informational purposes. It does not constitute medical advice.

United HealthCare Services, Inc. uses InterQual® for the primary medical/surgical criteria, and the American Society of Addiction Medicine (ASAM) for substance use, in administering health benefits. If InterQual® does not have applicable criteria, United HealthCare Services, Inc. may also use United HealthCare Services, Inc.'s Medical Policies, Coverage Determination Guidelines, and/or Utilization Review Guidelines that have been approved by the Ohio Department for Medicaid Services. The United HealthCare Services, Inc.'s Medical Policies, Coverage Determination Guidelines, and Utilization Review Guidelines are intended to be used in connection with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice.

Policy History/Revision Information

Date	Summary of Changes
02/01/2024	Annual evidence-based updates
07/01/2024	Interim evidence-based updates and minor editorial updates
05/01/2025	Annual evidence-based updates
11/06/2025	Annual evidence-based updates
05/07/2026	Interim evidence-based updates