

DIAGNOSTIC RADIOLOGY (DIAGNOSTIC IMAGING)

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I. CPT¹ PROCEDURE CODES

70010 - 72292, 73000 - 76083, 76086 - 76394, 76400, 76496 - 76499, 95965 - 95967, 0145T - 0151T

II. HCPCS PROCEDURE CODES

G0204 - G0207

III. DESCRIPTION

Radiology is the science that deals with the use of radiant energy, such as X-rays, radium, and radioactive isotopes, in the diagnosis and treatment of disease. Radiology is an important diagnostic tool useful for the evaluation. The techniques used for diagnostic radiology are as follows:

A. Magnetic Resonance Imaging (MRI), formerly also referred to as Nuclear Magnetic Resonance (NMR), is a non-invasive method of graphically representing the distribution of water and other hydrogen-rich molecules in the human body. MRI uses radio frequency radiation in the presence of a carefully controlled magnetic field to produce high quality cross-sectional images of the head and body in any plane. These tomographic images represent the tissue being analyzed and the environment surrounding it. MRI has become a useful diagnostic imaging modality that is capable of demonstrating a wide variety of soft-tissue lesions with contrast resolution equal or superior to Computerized Tomography (CT) scanning in various parts of the body. Among the advantages of MRI are the absence of ionizing radiation and the ability to achieve high levels of tissue contrast resolution without injected iodinated contrast agents.

B. Magnetic Resonance Angiography (MRA) techniques generate contrast between flowing blood and surrounding tissue, and provide anatomic images that can be provided in a format similar to that of conventional x-ray angiography, and can also provide physiologic information.

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C. A Computerized Tomography (CT)/Computerized Axial Tomography (CAT) scan is interchangeably referred to as either a CT or CAT scan. This diagnostic test uses x-ray technology to create three-dimensional, computerized images of internal organs. However, unlike a traditional x-ray, CT/CAT scans are able to distinguish between obscured and overlapping parts of the body. CAT scans are also capable of producing images of several different internal components, including soft tissue, blood vessels and bones.

IV. POLICY

A. MRI and MRI with contrast media are covered when medically necessary, appropriate, and the standard of care. (CPT² procedure codes 70336, 70540-70543, 70551-70553, 71550-71552, 72141-72158, 72195-72197, 73218-73223, 73718-73723, 74181-74183, 75552-75556, and 76400.)

B. Breast MRI (CPT² procedure codes 77058 and 77059) is covered for the following indications. **This list of indications is not all inclusive. Other indications may be covered when documented by reliable evidence as safe, effective, and comparable to conventional technology (proven):**

1. To detect breast implant rupture (the implantation of the breast implants must have been covered by TRICARE).
2. For detection of occult breast cancer in the setting of axillary nodal adenocarcinoma with negative physical exam and negative mammography.
3. For presurgical planning for locally advanced breast cancer before and after completion of neoadjuvant chemotherapy, to permit tumor localization and characterization.
4. For presurgical planning to evaluate the presence of multicentric disease in patients with localized or advanced breast cancer who are candidates for breast conservation treatment.
5. Evaluation of suspected cancer recurrence.
6. To determine the presence of pectoralis major muscle/chest wall invasion in patients with posteriorly located tumor.
7. **For guidance of interventional procedures such a vacuum assisted biopsy and preoperative wire localization for lesions that are occult on mammography or sonography and are demonstrable only with MRI.**

NOTE: For policy on breast MRI to screen for breast cancer in high risk women, see [Chapter 7, Sections 2.1 and 2.2](#).

C. Open MRI and Open MRI with contrast media are covered when medically necessary, appropriate, and the standard of care.

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D. MRA is covered when medically necessary, appropriate and the standard of care. (CPT² procedure codes 70544-70549, 71555, 72159, 72198, 73225, 73725, and 74185.)

E. CT scans are covered when medically necessary, appropriate and the standard of care and all criteria stipulated in 32 CFR 199.4(e) are met. (CPT³ procedure codes 70450-70498, 71250-71275, 72125-72133, 72191-72194, 73200-73206, 73700-73706, 74150-74175, 75635, and 76355-76380.)

F. TRICARE considers three-dimensional (3D) rendering (CPT³ procedure codes 76376 and 76377) medically necessary under certain circumstances (see Chapter 5, Section 2.1).

G. Helical (spiral) CT scans, with or without contrast enhancement, are covered when medically necessary, appropriate and the standard of care.

H. Chest x-rays (CPT³ procedure codes 71010-71035) are covered.

I. Diagnostic mammography (CPT³ procedure codes 76090-76092/HCPCS codes G0204-G0207) to further define breast abnormalities or other problems is covered.

J. Portable X-ray services are covered. The suppliers must meet the conditions of coverage of the Medicare program, set forth in the Medicare regulations, or the Medicaid program in that state in which the covered service is provided. In addition to the specific radiology services, reasonable transportation and set-up charges are covered and separately reimbursable.

K. Bone density studies (CPT³ procedure codes 76070-76078) are covered for the following:

1. The diagnosis and monitoring of osteoporosis.
2. The diagnosis and monitoring of osteopenia.

3. Patients must present with signs and symptoms of bone disease or be considered at high-risk for developing osteoporosis. High-risk factors which have been identified as the standard of care by the American College of Obstetricians and Gynecologists (ACOG) include:

a. Women who are estrogen-deficient and at clinical risk for osteoporosis. Naturally or surgically post-menopausal women who have not been on **long-term** Hormone Replacement Therapy (HRT). However, **current** use of HRT does not preclude estrogen deficiency.

b. Individuals who have vertebral abnormalities.

c. Individuals receiving long-term glucocorticoid (steroid) therapy.

d. Individuals with primary hyperparathyroidism.

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- e. Individuals with positive family history of osteoporosis.
- f. Any other high-risk factor identified by ACOG as the standard of care.

L. Radiological supervision and interpretation, percutaneous vertebroplasty or vertebral augmentation including cavity creation, per vertebral body; under fluoroscopic guidance (CPT⁴ procedure code 72291) or under CT guidance (CPT⁴ procedure code 72292) is covered.

M. Multislice or multidetector row CT angiography (CPT⁴ codes 0145T - 0151T) is covered for the following indications:

1. Evaluation of heart failure of unknown origin when invasive coronary angiography +/- Percutaneous Coronary Intervention (PCI) is not planned, unable to be performed or is equivocal.

2. In an Emergency Department (ED) for patients with acute chest pain, but no other evidence of cardiac disease (low-pretest probability), when results would be used to determine the need for further testing or observation.

3. Acute chest pain or unstable angina when invasive coronary angiography or a PCI cannot be performed or is equivocal.

4. Chronic stable angina and chest pain of uncertain etiology or other cardiac findings prompting evaluation for Coronary Artery Disease (CAD) (for example: new or unexplained heart failure or new bundle branch block).

a. When invasive coronary angiography or PCI is not planned, unable to be performed, or is equivocal; AND

b. Exercise stress test is unable to be performed or is equivocal; AND

c. At least one of the following non-invasive tests were attempted and results could not be interpreted or where equivocal or none of the following tests could be performed:

(1) Exercise stress echocardiography

(2) Exercise stress echo with dobutamine

(3) Exercise myocardial perfusion (Single Photon Emission Computed Tomography (SPECT))

(4) Pharmacologic myocardial perfusion (SPECT)

5. Evaluation of anomalous native coronary arteries in symptomatic patients when conventional angiography is unsuccessful or equivocal and when results would impact treatment.

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6. Evaluation of complex congenital anomaly of coronary circulation or of the great vessels.
7. Presurgical evaluation prior to biventricular pacemaker placement.
8. Presurgical evaluation of coronary anatomy prior to non-coronary surgery (valve placement or repair; repair of aortic aneurysm or dissection).
9. Presurgical cardiovascular evaluation for patients with equivocal stress study prior to kidney or liver transplantation.
10. Presurgical evaluation prior to electrophysiologic procedure to isolate pulmonary veins for radiofrequency ablation of arrhythmia focus.

V. EXCLUSIONS

- A. Bone density studies for the routine screening of osteoporosis.
- B. Ultrafast CT (electron beam CT (HCPCS code S8092)) to predict asymptomatic heart disease is preventive.
- C. MRIs (CPT⁵ procedure codes 77058 and 77059) to screen for breast cancer in asymptomatic women considered to be at low or average risk of developing breast cancer; for diagnosis of suspicious lesions to avoid biopsy, to evaluate response to neoadjuvant chemotherapy, to differentiate cysts from solid lesions.
- D. MRIs (CPT⁵ procedure codes 77058 and 77059) to assess implant integrity or confirm implant rupture, if implants were not originally covered or coverable.
- E. 3D rendering (CPT⁵ procedure codes 76376 and 76377) for monitoring coronary artery stenosis activity in patients with angiographically confirmed CAD is unproven.
- F. 3D rendering (CPT⁵ procedure codes 76376 and 76377) for evaluating graft patency in individuals who have undergone revascularization procedures is unproven.
- G. 3D rendering (CPT⁵ procedure codes 76376 and 76377) for use as a screening test for CAD in healthy individuals or in asymptomatic patients who have one or more traditional risk factors for CAD is unproven.
- H. CT angiography (CPT⁵ procedure codes 76376 and 76377) for acute ischemic stroke is unproven.
- I. CT angiography (CPT⁵ procedure codes 76376 and 76377) for intracerebral aneurysm and subarachnoid hemorrhage is unproven.
- J. CT, heart, without contrast, including image post processing and quantitative evaluation of coronary calcium (ultra fast or electron beam CT) (CPT⁵ procedure code 0144T,

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HCPCS code S8092) is excluded for symptomatic patients and for screening asymptomatic patients for CAD.

K. CT, heart, without contrast material followed by contrast, material(s) and further sections, including cardiac gating and 3D image post processing; cardiac structure and morphology (CPT⁶ procedure code 0145T) is excluded for patients with typical anginal chest pain with high suspicion for CAD; patients with acute Myocardial Infarction (MI); and for screening asymptomatic patients for CAD.

L. Computed tomographic angiography of coronary arteries (including native and anomalous coronary arteries, coronary bypass grafts) without quantitative evaluation of coronary calcium (CPT⁶ procedure code 0146T) is excluded for patients with typical anginal chest pain with high suspicion for CAD; patients with acute MI; and for screening asymptomatic patients for CAD.

M. Computed tomographic angiography of coronary arteries (including native and anomalous coronary arteries, coronary bypass grafts) with quantitative evaluation of coronary calcium (CPT⁶ procedure code 0147T) is excluded for patients with typical anginal chest pain with high suspicion for CAD; patients with acute MI; and for screening asymptomatic patients for CAD.

N. Cardiac structure and morphology and computed tomographic angiography of coronary arteries (including native and anomalous coronary arteries, coronary bypass grafts) without quantitative evaluation of coronary calcium (CPT⁶ procedure code 0148T) is excluded for patients with typical anginal chest pain with high suspicion for CAD; patients with acute MI; and for screening asymptomatic patients for CAD.

O. Cardiac structure and morphology and computed tomographic angiography of coronary arteries (including native and anomalous coronary arteries, coronary bypass grafts) with quantitative evaluation of coronary calcium (CPT⁶ procedure code 0149T) is excluded for patients with typical anginal chest pain with high suspicion for CAD; patients with acute MI; and for screening asymptomatic patients for CAD.

P. Cardiac structure and morphology in congenital heart disease (CPT⁶ procedure code 0150T) is excluded for patients with typical anginal chest pain with high suspicion for CAD; patients with acute MI; and for screening asymptomatic patients for CAD.

Q. CT, heart, without contrast material followed by contrast material(s) and further sections, including cardiac gating and 3D image post processing, function evaluation (left and right ventricular function, ejection fraction and segmental wall motion (CPT⁶ procedure code 0151T)) is excluded for patients with typical anginal chest pain with high suspicion for CAD; patients with acute MI; and for screening asymptomatic patients for CAD.

R. Multislice or multidetector row CT angiography of less than 16 slices per sec and 1mm or less resolution is excluded.

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S. Dual Energy X-Ray Absorptiometry (DXA) composition study (CPT⁷ procedure code 0028T) is unproven.

VI. EFFECTIVE DATES

A. The effective date for MRIs with contrast media is dependent on the U.S. Food and Drug Administration (FDA) approval of the contrast media and a determination by the contractor of whether the labeled or unlabeled use of the contrast media is medically necessary and a proven indication.

B. March 31, 2006, for breast MRI.

C. March 31, 2006, for coverage of multislice or multidetector row CT angiography.

D. January 1, 2007, for CPT⁷ procedure codes 72291 and 72292.

E. January 1, 2007, for coverage of multislice or multidetector row CT angiography performed for presurgical evaluation prior to electrophysiological procedure to isolate pulmonary veins for radiofrequency ablation of arrhythmia focus.

F. October 1, 2008, for breast MRI for guidance of interventional procedures such as vacuum assisted biopsy and preoperative wire localization for lesions that are occult on mammography or sonography and are demonstrable only with MRI.

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