

04-70540-12

Original Effective Date: 07/01/07

Reviewed: 10/24/24

Revised: 11/15/24

Subject: Magnetic Resonance Imaging (MRI) Orbit, Face, Temporomandibular Joint (TMJ) and Neck

THIS MEDICAL COVERAGE GUIDELINE IS NOT AN AUTHORIZATION, CERTIFICATION, EXPLANATION OF BENEFITS, OR A GUARANTEE OF PAYMENT, NOR DOES IT SUBSTITUTE FOR OR CONSTITUTE MEDICAL ADVICE. ALL MEDICAL DECISIONS ARE SOLELY THE RESPONSIBILITY OF THE PATIENT AND PHYSICIAN. BENEFITS ARE DETERMINED BY THE GROUP CONTRACT, MEMBER BENEFIT BOOKLET, AND/OR INDIVIDUAL SUBSCRIBER CERTIFICATE IN EFFECT AT THE TIME SERVICES WERE RENDERED. THIS MEDICAL COVERAGE GUIDELINE APPLIES TO ALL LINES OF BUSINESS UNLESS OTHERWISE NOTED IN THE PROGRAM EXCEPTIONS SECTION.

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DESCRIPTION:

Magnetic resonance imaging (MRI) is a radiation-free, noninvasive, technique used to produce high quality sectional images of the inside of the body in multiple planes. MRI uses natural magnetic properties of the hydrogen atoms in the body that emit radiofrequency signals when exposed to radio waves within a strong magnetic field. These signals are processed and converted by a computer into high-resolution, three-dimensional, tomographic images. Images and resolution produced by MRI is quite detailed. For some MRI, contrast materials (e.g., gadolinium, gadoteridol, non-ionic and low osmolar contrast media, ionic and high osmolar contrast media) are used to enable visualization of a body system or body structure.

The U.S. Food and Drug Administration's (FDA) cleared MRI systems for marketing through the 510(k) process. The Fonar Stand-Up MRI system received FDA marketing clearance in October, 2000.

Summary and Analysis of Evidence: Magnetic resonance imaging (MRI) of the head and neck is a proven and useful tool for the diagnosis, evaluation, and follow-up of diseases of the head and neck. Indications for MRI of the head and neck include, but are not limited to, the following: tumor characterization, assessing tumor extent and invasion into adjacent structures including perineural tumor spread, deep neck infections, congenital/developmental abnormalities (including vascular anomalies), neck trauma (as an adjunct to CT neck for suspected soft tissue), cranial neuropathies and inflammatory processes (ACR-ASNR-SPR, 2023).

POSITION STATEMENT:

Magnetic Resonance Imaging (MRI) **meets the definition of medical necessity** for the following:

Indications for Orbit MRI

Abnormal external or direct eye exam

- Exophthalmos (proptosis) or enophthalmos
- Ophthalmoplegia with concern for orbital pathology
- Unilateral optic disk swelling
- Documented visual field defect
 - Unilateral or with abnormal optic disc(s); **AND**
 - Not explained by underlying diagnosis, glaucoma, or macular degeneration.

Optic Neuritis

- If atypical presentation, severe visual impairment, or poor recovery following initial onset or treatment onset **OR**
- If needed to confirm optic neuritis and rule out compressive lesions.

Orbital trauma

- Direct eye injury
- Suspected orbital trauma with indeterminate x-ray or ultrasound

Orbital or ocular mass/tumor, suspected or known

Clinical suspicion of orbital inflammatory disease (e.g., eye pain with suspected pseudotumor)

Clinical suspicion of orbital infection

Clinical suspicion of osteomyelitis

Congenital orbital anomalies

Complex strabismus to aid in diagnosis, treatment and/or surgical planning

Indications for Face/Sinus MRI

Rhinosinusitis

- Clinical suspicion of fungal infection
- Clinical suspicion of orbital or intracranial complications.

Sinonasal obstruction, suspected mass, based on exam, nasal endoscopy, or prior imaging

Suspected infection

Anosmia or Dysosmia based on objective testing that is persistent and of unknown origin

Granulomatosis with polyangiitis (Wegener's granulomatosis) disease

Face mass

- Present on physical exam and remains non-diagnostic after x-ray or ultrasound is completed
- Known or highly suspected head and neck cancer on examination
- Failed 2 weeks of treatment for suspected infectious adenopathy.

Facial trauma

- Physical findings of direct facial bone injury
- For further evaluation of a known fracture for treatment or surgical planning.

Trigeminal neuralgia/neuropathy (for evaluation of the extracranial nerve course)

Indications for Neck MRI

Suspected tumor or cancer:

- Suspicious lesions in mouth or throat
- Suspicious mass/tumor found on another imaging study and needing clarification
- Neck mass or lymphadenopathy (non-parotid or thyroid)
 - Present on physical exam and remains non-diagnostic after ultrasound is completed
 - Increased risk for malignancy with one or more of the following findings:
 - Fixation to adjacent tissues
 - Firm consistency
 - Size >1.5 cm
 - Ulceration of overlying skin
 - Mass present \geq two weeks (or uncertain duration) without significant fluctuation and not considered of infectious cause
 - History of cancer.
 - Failed 2 weeks of treatment for suspected infectious adenopathy.
- Neck Mass (parotid)

- Parotid mass found on other imaging study and needing further evaluation
- Neck Mass (thyroid)
 - Staging and monitoring for recurrence of known thyroid cancer
 - To assess extent of thyroid tissue when other imaging suggests extension through the thoracic inlet into the mediastinum or concern for airway compression.

Pediatric members (≤ 18 years old):

- Neck masses if ultrasound is inconclusive or suspicious
- History of malignancy.

Known or suspected deep space infections or abscesses of the pharynx or neck

Other indications for a Neck MRI:

- MR Sialography to evaluate salivary ducts
- Vocal cord lesions or vocal cord paralysis
- Unexplained ear pain when ordered by a specialist with all of the following:
 - Otolaryngoscopic exam, nasolaryngoscopy, lab evaluation **AND**
 - Risk factor for malignancy i.e., tobacco use, alcohol use, dysphagia, weight loss **OR** age older than 50 years.
- Diagnosed primary hyperparathyroidism when surgery is planned
- Bell's palsy/hemifacial spasm (for evaluation of the extracranial nerve course)
- Objective cranial nerve palsy (CN IX-XII) (for evaluation of the extracranial nerve course)
- Brachial plexopathy if mechanism of injury or EMG/NCV studies are suggestive.

Other Indications for Orbit/Face/Sinus/Neck MRI

Known tumor or cancer of skull base, orbits, sinuses, tongue, larynx, nasopharynx, pharynx, or salivary glands

- Initial staging
- Restaging during treatment
- Suspected recurrence or new metastases based on symptoms or examination findings.

Pre-operative evaluation for a planned surgery or procedure

Post-operative/procedural evaluation when imaging, physical, or laboratory findings indicate surgical or procedural complications

Indications for Temporomandibular Joint (TMJ) MRI

Evaluation of temporomandibular joint dysfunction (TMD) with suspected internal joint derangement with both:

- Persistent symptoms of facial or jaw pain, restricted range of motion, pain and/or noise with TMJ function (i.e., chewing) **AND**
- Conservative therapy with a trial of anti-inflammatory **AND** behavioral modification has been unsuccessful for at least four (4) weeks

Evaluation of Juvenile idiopathic arthritis (JIA)

Abnormal initial x-ray or ultrasound needing additional imaging

Pre-operative evaluation in candidates for orthognathic surgery

Post-operative evaluation

- A follow-up study may be needed to help evaluate a member's progress after treatment, procedure, intervention, or surgery. Documentation requires a medical reason that clearly indicates why additional imaging is needed for the type and area(s) requested.

MRI imaging, when used as a screening tool in the absence of signs or symptoms of a disease or condition, without a diagnosis, or specific clinical indication **does not meet the definition of medical necessity** as there is insufficient clinical evidence to support the use of MRI imaging as a screening tool.

BILLING/CODING INFORMATION:

CPT Coding:

70336	Magnetic resonance (e.g., proton) imaging, temporomandibular joint(s)
70540	Magnetic resonance (e.g., proton) imaging orbit, face and neck; without contrast material(s)
70542	Magnetic resonance (e.g., proton) imaging orbit, face and neck; with contrast material(s)
70543	Magnetic resonance (e.g., proton) imaging orbit, face and neck; without contrast material(s), followed by contrast material(s) and further sequences

HCPCS Coding:

S8042	Magnetic resonance imaging (MRI), low-field
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REIMBURSEMENT INFORMATION:

Reimbursement for MRI imaging (70336, 70540-70543) performed on the same anatomical area is limited to one (1) MRI imaging (70336, 70540-70543) within a 6-month period. MRI imaging in excess of

one (1) within a 6-month period is subject to medical review for medical necessity. Documentation should include radiology reason for study, radiology comparison study-date and time, radiology comparison study observation, radiology impression, and radiology study recommendation.

Additional MRI imaging of the same anatomical area may be appropriate for the following, including, but not limited to: diagnosis, staging or follow-up of cancer, follow-up assessment during or after therapy for known metastases, follow-up or evaluation after treatment, procedure, intervention or surgery, reevaluation due to change in clinical status, new or worsening clinical findings, medical intervention which warrants reassessment, reevaluation for treatment planning, and follow-up during and after completion of therapy or treatment to assess effectiveness.

Reimbursement for MRI imaging (70336, 70540-70543) for an oncologic condition undergoing active treatment or active treatment completed within the previous 12 months on the same anatomical area is limited to four (4) MRI imaging (70336, 70540-70543) within a 12-month period. MRI imaging (70336, 70540-70543) for an oncologic condition in excess of four (4) within a 12-month period are subject to medical review of documentation to support medical necessity. Documentation should include radiology reason for study, radiology comparison study-date and time, radiology comparison study observation, radiology impression, and radiology study recommendation.

Re-imaging or additional imaging due to poor contrast enhanced exam or technically limited exam is the responsibility of the imaging provider.

Stand-Up MRI/Sitting MRI

Stand-up MRI and sitting MRI may be reported like a standard MRI. No additional payment will be made for stand-up MRI or sitting MRI.

LOINC Codes:

The following information may be required documentation to support medical necessity: physician history and physical, physician progress notes, plan of treatment and reason for magnetic resonance imaging (MRI) orbit, face, temporomandibular joint (TMJ) and neck.

Documentation Table	LOINC Codes	LOINC Time Frame Modifier Code	LOINC Time Frame Modifier Codes Narrative
Physician history and physical	28626-0	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Attending physician progress note	18741-9	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Plan of treatment	18776-5	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim

Radiology reason for study	18785-6	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology comparison study-date and time	18779-9	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology comparison study observation	18834-2	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology-study observation	18782-3	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology-impression	19005-8	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology study-recommendation (narrative)	18783-1	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim

PROGRAM EXCEPTIONS:

Federal Employee Plan (FEP): Follow FEP guidelines.

Medicare Advantage products:

No Local Coverage Determination (LCD) was found at the time of the last guideline reviewed date.

The following National Coverage Determination (NCD) was reviewed on the last guideline reviewed date: Magnetic Resonance Imaging, (220.2) located at cms.gov

DEFINITIONS:

Proptosis: Abnormal protrusion of the eyeball.

RELATED GUIDELINES:

[Magnetic Resonance Spectroscopy \(MRS\), 04-70540-07](#)

[Magnetic Resonance Imaging \(MRI\) of the Breast, 04-70540-09](#)

[Magnetic Resonance Imaging \(MRI\) Brain and Head, 04-70540-11](#)

[Magnetic Resonance Imaging \(MRI\) Chest & Cardiac, 04-70540-13](#)

[Magnetic Resonance Imaging \(MRI\) Abdomen and Pelvis, 04-70540-14](#)

[Magnetic Resonance Imaging \(MRI\) Upper Extremity, 04-70540-15](#)

[Magnetic Resonance Imaging \(MRI\) Lower Extremity, 04-70540-16](#)

[Magnetic Resonance Imaging \(MRI\) Spine \(Cervical, Thoracic, Lumbar\), 04-70540-17](#)

OTHER:

Other names used to report MRI:

Nuclear Magnetic Resonance (NMR)
Open MRI

Other names used to report Positional MRI:

Position MRI (pMRI)
Sitting MRI
Stand-Up MRI
Standing MRI
Weight-bearing MRI

REFERENCES:

1. American College of Radiology ACR Appropriateness Criteria® Cranial Neuropathy, 2017.
2. American College of Radiology ACR Appropriateness Criteria® Orbits, Vision and Visual Loss, 2017.
3. American College of Radiology ACR Appropriateness Criteria® Sinonasal Disease, 2017.
4. American College of Radiology ACR Appropriateness Criteria® Soft-Tissue Masses, 2017.
5. ACR-ASNR-SPR Practice Guideline for the Performance of Magnetic Resonance Imaging (MRI) of the Head and Neck, 2023.
6. Hata M, Miyamoto K. Causes and prognosis of unilateral and bilateral optic disc swelling. *Neuroophthalmology*. 2017 Apr 10;41(4):187-191.
7. Hoang JK, Vanka J, Ludwig BJ et al. Evaluation of cervical lymph nodes in head and neck cancer with CT and MRI: tips, traps, and a systematic approach. *AJR Am J Roentgenol*. 2013 Jan;200(1): W17-25.
8. Koeller KK. Radiologic features of sinonasal tumors. *Head Neck Pathol*. 2016 Mar;10(1):1-12.
9. Lee YJ, Sadigh S, Mankad K et al. The imaging of osteomyelitis. *Quant Imaging Med Surg*. 2016;6(2):184-198.
10. Pynnonen MA, Gillespie MB, Roman B et al. Clinical Practice Guideline: Evaluation of the neck mass in adults. *Otolaryngol Head Neck Surg*. 2017;157(2 suppl):S1-S30.

COMMITTEE APPROVAL:

This Medical Coverage Guideline (MCG) was approved by the Florida Blue Medical Policy and Coverage Committee on 10/24/24.

GUIDELINE UPDATE INFORMATION:

07/01/07	New Medical Coverage Guideline.
01/21/08	Updated Program Exceptions.
07/15/08	Scheduled review. No change in position statement. Updated references and related Internet links.

05/21/09	Removed Federal Employee Plan (FEP) from Florida Blue Radiology Management program exception statement. Added FEP program exception statement: FEP is excluded from the National Imaging Associates (NIA) review; follow FEP guidelines.
07/01/09	Updated Florida Blue Radiology Management program exception; added BlueSelect.
01/01/10	Revised Florida Blue Radiology Management program exception section.
06/15/10	Annual review. Reformatted and updated position statement. Added program exception for Medicare Advantage products; covered indications and ICD-9 codes that support medical necessity. Updated references.
07/15/10	Code update; deleted 77084.
10/15/10	Revision related 2010 ICD-9 code added; added 784.92 to Medicare Advantage products program exception. Updated references.
10/01/11	Revision; formatting changes.
06/15/12	Scheduled review; added "orbital" Pseudotumor, unilateral visual deficit: orbit, tumors (parotid): face, "neck" lymphadenopathy: neck, "tumors" skull base: neck, e.g., failed conservative therapy: TMJ, "or locked" for frozen jaw: TMJ, "dysfunctional" for pre-operative evaluation of TMJ: TMJ, indications for sinus, criteria for imaging which exceed limit, statement for re-imaging or additional imaging, and definition for nystagmus and proptosis. Deleted "stones" (parotid): face, "mass" skull base: neck, and Medicare ICD-9 codes. Updated references.
01/01/14	Annual review. Revision; eye trauma (deleted to the eye; added assessment); added neck tumor, mass or with suspected recurrence or metastasis (based on symptoms or examination findings (may include new or changing lymph nodes); when persistent, greater than one month, and \geq to 1cm to non-thyroid mass in neck and evaluation of parathyroid tumor when: Ca > normal [>10.6 mg/dL] and PTH > normal [55 pg/mL]; with previous non-diagnostic ultrasound or nuclear medicine scan; and surgery is planned; neck lymphadenopathy (added when greater than one month, noted to be \geq to 1 cm or associated with generalized lymphadenopathy); skull base (added mass or cancer); sinus (add "previous" to CT and deleted MRI. Deleted; neck tumors or malignancy (known or suspected): diagnosis or staging, evaluation or response to treatment and preoperative evaluation. Updated program exception.
01/01/15	Scheduled review; added cancer (known or suspected) and parotid and submandibular glands and ducts stones to position statement (neck section), pre-operative and post-operative/procedural evaluation (neck section), and "for orthognathic surgery" to preoperative evaluation of dysfunctional TMJ (temporomandibular joint (TMJ) section). Revised failed conservative therapy; add for at least four (4) weeks (temporomandibular joint (TMJ) section). Added limitation statement for an oncologic condition; limited to four (4) computed tomography within a 12-month period. Updated references.
05/15/16	Revisions; Deleted sinusitis (rhinosinusitis) unresponsive to 3 documented courses of 4 weeks of medical management (each documented course of treatment must be 4 weeks long) (e.g., antibiotics, nasal steroids, decongestants, anti-histamines). Added unresolved sinusitis after four (4) consecutive weeks of medication (e.g., antibiotics, steroids, antihistamines). Updated references.
02/15/18	Revision; updated and revised position statement (orbit, face, neck, TMJ, sinus). Updated program exceptions and references.

02/15/20	Review and revision. Added indication and criteria for: orbit: abnormal external or direct eye exam, orbital trauma, clinical suspicion of: orbital inflammatory disease, infection, osteomyelitis; face/sinus: face mass, facial trauma, neck, known tumor or cancer, pre-operative and post-operative procedural evaluation, combination studies; temporomandibular joint: locked for frozen jaw, abnormal initial x-ray and pre-operative and post-operative evaluation. Updated references.
05/15/22	Review: Position statements and references updated.
07/01/22	Revision to Program Exceptions section.
12/09/23	Review: position statements and references updated.
11/15/24	Review; no change in position statement. Updated references.