

## Magnetoencephalography (MEG)

MPM 13.1

**Disclaimer** Refer to the member's specific benefit plan and *Schedule of Benefits* to determine coverage. This may not be a benefit on all plans or the plan may have broader or more limited benefits than those listed in this Medical Policy.

**Description** Magnetoencephalography (MEG) is a non-invasive neurophysiological technique that measures the magnetic fields associated with electrical activity within the brain.

**Coverage Determination** **Prior Authorization is required. Logon to Pres Online to submit a request:** <https://ds.phs.org/preslogin/index.jsp>

This technology has been reviewed and approved by the Technology Assessment Committee and the Medical Policy Committee.

MEG is covered for the following indications:

- Planning of epilepsy surgery for localization of epileptic foci and identification of eloquent cortex in patients with poorly controlled epilepsy.
- Mapping of eloquent cortex for patients requiring neurosurgery, at the discretion of the treating neurosurgeon.
- Recurrent seizures following epilepsy surgery, when EEG results are non-diagnostic.
- Suspected Landau-Kleffner syndrome in child with aphasia.

**Limitations:**

MEG should not be repeated more frequently than one service per year.

**Exclusions** **ALL** of the following apply:

- MEG is not covered for routine evaluation of a seizure disorder.
- MEG is not covered for any indication other than those listed above

**Background** Magnetoencephalography (MEG) involves external monitoring of the weak magnetic fields that are associated with electrical activity within the brain. Changes in the aeromagnetic field provide information about brain function. These functional data can be combined with structural data obtained by an MRI, utilizing a technique known as magnetic source imaging. This technique generates a functional map of cortical organization, which can then be used to circumscribe an epileptogenic zone or structural lesion with greater accuracy than surface EEGs and minimize loss of function in patients requiring surgical resection. Another important use of MEG is the identification of eloquent cortex, which is cortex related to motor and sensory function.

Not every Presbyterian health plan contains the same benefits. Please refer to the member's specific benefit plan and *Schedule of Benefits* to determine coverage.

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**Coding**            **The coding listed in this Medical Policy is for reference only.  
Covered and non-covered codes are included in this list.**

<b>CPT Codes</b>	<b>Description</b>
95965	Magnetoencephalography (MEG), recording and analysis; for spontaneous brain magnetic activity (eg, epileptic cerebral cortex localization)
95966	Magnetoencephalography (MEG), recording and analysis; for evoked magnetic fields, single modality (eg, sensory, motor, language or visual cortex localization)
95967	Magnetoencephalography (MEG), recording and analysis; for evoked magnetic fields, each additional modality (eg, sensory, motor, language or visual cortex localization) (List separately in addition to code for primary procedure)

<b>HCPCS® Codes</b>	<b>Description</b>
S8035	Magnetic source imaging

<b>ICD-9® Diagnosis Codes</b>	<b>Description</b>
191.1	Malignant Neoplasm of frontal lobe
191.2	Malignant Neoplasm of temporal lobe
191.3	Malignant Neoplasm of parietal lobe
191.4	Malignant Neoplasm of occipital lobe
225.0	Benign neoplasm of brain
345.00–345.91	Epilepsy code range
345.8	Other forms of epilepsy and recurrent seizures (Landau-Kleffner Syndrome)
437.3	Cerebral aneurysm, nonruptured
747.81	Congenital anomalies of cerebrovascular system

**Reviewed by:** John S. Phillips, MD, Associate Professor of Neurology & Pediatrics Medical Director, The MIND Institute, University of New Mexico Health Sciences Center, June 2007. September 2009.

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- References:**
1. Milliman Care Guidelines®, Copyright © 2009 Milliman Care Guidelines LLC. Magnetoencephalography, ACG: A-0481(AC). 02-09-10.
  2. Hayes Directory. Copyright © Winifred S. Hayes, Inc. 2008. Magnetoencephalography and Magnetic Source Imaging of the Brain. September 15, 2008. Update Search: August 28, 2009.
  3. Hayes Directory. Copyright © Winifred S. Hayes, Inc. 2008. Magnetoencephalography and Magnetic Source Imaging of the Brain. September 15, 2008. . No change.
  4. Blue Cross Blue Shield Association, Technology Evaluation Center. Special Report: MEG and MSI for the Purpose of Presurgical Localization of Epileptic Lesions—A Challenge for Technology Evaluation. January 2009.
  5. Blue Cross Blue Shield Association, Technology Evaluation Center. Special Report: MEG and MSI for the Purpose of Presurgical Localization of Epileptic Lesions—A Challenge for Technology Evaluation. January 2009. Update Search 10-2011. Accessed 11/4/11.
  6. Sotero de Menezes, M. eMedicine from WebMD. Copyright© 1994-2009 by Medscape. Landau-Kleffner Syndrome. Updated 07-26-10. Accessed on the Internet 08-20-10: <http://emedicine.medscape.com/article/1176568-overview>

**Approval Signatures:****Clinical Quality Committee:** Mark Whitaker MD**Medical Director:** Albert Rizzoli MD**Date:** November 30, 2011**Publication History:**  
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This Medical Policy is intended to represent clinical guidelines describing medical appropriateness and is developed to assist Presbyterian Health Plan and Presbyterian Insurance Company, Inc. (Presbyterian) Health Services staff and Presbyterian medical directors in determination of coverage. The Medical Policies are not a treatment guide and should not be used as such.

For those instances where a member does not meet the criteria described in these guidelines, additional information supporting medical necessity is welcome and may be utilized by the medical director in reviewing the case. Please note that all Presbyterian Medical Policies are available on the Internet at: <http://www.phs.org/phs/healthplans/providers/healthservices/Medical/index.htm> .

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