



REIMBURSEMENT POLICY STATEMENT

Wisconsin Marketplace

Policy Name & Number	Date Effective
Digital EEG Spike Analysis-WI MP-PY-1684	10/01/2025
Policy Type	
REIMBURSEMENT	

Reimbursement Policies are intended to provide a general reference regarding billing, coding and documentation guidelines. Coding methodology, regulatory requirements, industry-standard claims editing logic, benefits design, and other factors are considered in developing Reimbursement Policies.

In addition to this policy, reimbursement of services is subject to member benefits and eligibility on the date of service, medical necessity, adherence to plan policies and procedures, claims editing logic, provider contractual agreements, and applicable referral, authorization, notification, and utilization management guidelines. Medically necessary services include, but are not limited to, those health care services or supplies that are proper and necessary for the diagnosis or treatment of disease, illness, or injury and without which the patient can be expected to suffer prolonged, increased, or new morbidity, impairment of function, dysfunction of a body organ or part, or significant pain and discomfort. These services meet the standards of good medical practice in the local area, are the lowest cost alternative, and are not provided mainly for the convenience of the member or provider. Medically necessary services also include those services defined in any federal or state coverage mandate, Evidence of Coverage or Certificate of Coverage documents, Medical Policy Statements, Provider Manuals, Member Handbooks, and/or other plan policies and procedures.

This policy does not ensure an authorization or reimbursement of services. Please refer to the plan contract (often referred to as the Evidence of Coverage or Certificate of Coverage) for the service(s) referenced herein. Except as otherwise required by law, if there is a conflict between the Reimbursement Policy Statement and the plan contract, then the plan contract will be the controlling document used to make the determination. We may use reasonable discretion in interpreting and applying this policy to services provided in a particular case and we may modify this Policy at any time.

According to the rules of Mental Health Parity Addiction Equity Act (MHPAEA), coverage for the diagnosis and treatment of a behavioral health disorder will not be subject to any limitations that are less favorable than the limitations that apply to medical conditions as covered under this policy.

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A. Subject
Digital EEG Spike Analysis

B. Background

Reimbursement policies are designed to assist providers when submitting claims to CareSource. They are routinely updated to promote accurate coding and provide policy clarification. These proprietary policies are not a guarantee of payment. Reimbursement for claims may be subject to limitations and/or qualifications. Reimbursement will be established based upon a review of the actual services provided to a member and will be determined when the claim is received for processing.

Epilepsy is a chronic brain disorder that affects approximately 1.2% of the US population or 3,700,000 people. Epileptic seizures are associated with a loss of awareness, fatigue, drowsiness, physical weakness, and confusion. Epilepsy seizures can be triggered by stress, dehydration, alcohol, toxic exposure, hormonal changes, sleep deprivation, and visual stimulation. Epilepsy and seizures are diagnosed with a detailed medical history, blood tests, developmental, neurological, and behavioral tests, and scans and imaging techniques (eg, electroencephalography, computerized tomography, magnetic resonance imaging).

Electroencephalography (EEG) is a diagnostic test that measures electrical activity in the brain. EEG is a non-invasive procedure where small electrodes are attached to the patient's scalp and the patient remains still or is instructed to perform specific tasks while brain wave patterns are recorded. Specific wave patterns are then used to help diagnose medical conditions (eg, epilepsy), sleep disorders, evaluate brain function, and monitor brain activity. Advances in digital technology have led to software and hardware applications that expand the capability to record brain wave forms, graph out brain wave patterns, and automatically detect brain wave spikes that are indicative of abnormal brain activity.

There are several approaches to EEG monitoring, with short-term and long-term options that can be either inpatient or outpatient. Long-term EEG with video (video-EEG) is often used to assess patients with difficult diagnostic/management after clinical evaluation and routine EEG. This is generally an inpatient procedure through an epilepsy monitoring unit or as continuous EEG (cEEG) monitoring in the hospital or in special care units. Another option is ambulatory EEG (aEEG) which can provide EEG recordings outside of the hospital or clinic. Long-term EEG helps to detect brain disturbances as they happen and can provide more information to adjust treatment.

Abnormal EEG findings are often associated with epileptiform activity, such as epileptiform discharge. An epileptiform discharge represents a disruption in brain function and is typically associated with spikes and sharp waves. Analyzing these spikes and sharps with the accompanying slow waves helps localize seizure onset. When combined with clinical observation, prolonged monitoring via ambulatory EEG, and the

recorded clinical behavior provided by video EEG, spike analysis helps to diagnose epilepsy and other health conditions.

C. Definitions

- **Ambulatory EEG (aEEG) Monitoring** – Portable recording of EEG outside of the hospital or clinic setting. Can be done with simultaneous video recording. Often uses computer software to detect seizures and interictal epileptiform discharges (IED) to aid in interpretation.
- **Digital EEG** – Systems that allow for the recording, analysis, and storage of EEG data. These systems often include software tools that can detect spikes and other abnormal brain patterns and can help visualize, quantify, and interpret the data.
- **Dipole Analysis** – Localization and quantification of the sources of electrical activity in the brain, which helps understand the origins of conditions such as epilepsy.
- **Epileptiform Activity** – Indicates cortical hyperexcitability, which is associated with an increased risk of seizures and the presence of an epileptic network in the brain.
- **Sharp Waves** – Single epileptiform discharge defined by its duration and disruption of the EEG background.
- **Spikes** – Sharp, transient waveforms that are clearly distinguished from background activity and indicate abnormal electrical activity in the brain. Spikes are often associated with seizures.
 - **Simple Spikes** – Short, sharp waveforms.
 - **Spike-and-Wave Patterns** – A combination of spikes followed by a slower wave that are often seen in certain types of epilepsy.
- **Video-EEG Monitoring** – Synchronous recording and display of EEG patterns and video-recorded behavior. Procedure can be done in the outpatient EEG laboratory, in the home, or in a hospital inpatient setting.

D. Policy

- I. Common Ground Healthcare Cooperative considers digital EEG spike analysis (CPT code 95957) medically necessary and therefore reimbursable when performed in conjunction with EEG for topographic voltage and/or dipole analysis. This applies specifically for pre-surgical evaluation with video-EEG long-term monitoring in members with intractable epilepsy, intracranial injuries, and concussion.
- II. All other indications for digital EEG spike analysis are not covered nor are reimbursable.
- III. The submitting provider is responsible for submitting accurate documentation to substantiate the coding of claims. Failure to submit accurate and complete documentation may result in a denial. If the documentation does not support the claims submission, this will also result in a claims denial.

E. Conditions of Coverage

NA

The REIMBURSEMENT Policy Statement detailed above has received due consideration as defined in the REIMBURSEMENT Policy Statement Policy and is approved.

F. Related Policies/Rules
NA

G. Review/Revision History

DATE		ACTION
Date Issued	06/18/2025	New policy. Approved at Committee.
Date Revised		
Date Effective	10/01/2025	
Date Archived		

H. References

1. Baumgartner C, Pirker S. Video-EEG. *Handb Clin Neurol*. 2019;160:171-183. doi:10.1016/B978-0-444-64032-1.00011-4
2. EEG, noninvasive. MCG Health, 28th ed. Updated March 14, 2024. Accessed June 9, 2025. www.careweb.careguidelines.com
3. EEG, video monitoring. MCG Health, 28th ed. Updated March 14, 2024. Accessed June 9, 2025. www.careweb.careguidelines.com
4. Eom TH. Electroencephalography source localization. *Clin Exp Pediatr*. 2022;66(5):201-209. doi:10.3345/cep.2022.00962
5. Epilepsy and seizures. National Institute of Neurological Disorders and Stroke. Accessed June 9, 2025. www.ninds.nih.gov
6. Feyissa AM, Tatum WO. Adult EEG. *Handb Clin Neurol*. 2019;160:103-124. doi:10.1016/B978-0-444-64032-1.00007-2
7. Guideline 8: guidelines for recording clinical EEG on digital media. American Clinical Neurophysiology Society. Accessed June 9, 2025. www.acns.org
8. Guideline 12: guidelines for long-term monitoring for epilepsy. American Clinical Neurophysiology Society. Accessed June 9, 2025. www.acns.org
9. Haider HA, Hirsch LJ, Sutherland HW. Electroencephalography (EEG) in the diagnosis of seizures and epilepsy. UpToDate. Updated April 29, 2025. Accessed June 9, 2025. www.uptodate.com
10. Hirsch LJ, Fong MWWK, Leiting M, et al. American Clinical Neurophysiology Society's standardized critical care EEG terminology: 2021 version. *J Clin Neurophysiol*. 2021; 38:1-29. doi:10.1097/WNP.0000000000000806
11. Kobau R, Luncheon C, Greenlund K. Active epilepsy prevalence among U.S. adults is 1.1% and differs by educational level – National Health Interview Survey, United States, 2021. *Epilepsy Behav*. 2023;142:109180. doi:10.1016/j.yebeh.2023.109180
12. Moeller J, Haider HA, Hirsch LJ. Video and ambulatory EEG monitoring in the diagnosis of seizures and epilepsy. UpToDate. Updated May 6, 2025. Accessed June 9, 2025. www.uptodate.com
13. Tatum WO, Halford JJ, Olejniczak P, et al. Minimum technical requirements for performing ambulatory EEG. *J Clin Neurophysiol*. 2022;39(6):435-440. doi:10.1097/WNP.0000000000000950

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