

Clinical Policy: Biofeedback for Behavioral Health Disorders

Reference Number: CP.BH.300

Date of Last Revision: 07/23

[Coding Implications](#)

[Revision Log](#)

See [Important Reminder](#) at the end of this policy for important regulatory and legal information.

Note: Please refer to the Centene Policy CP.MP.168 for Biofeedback for non-behavioral health diagnoses. This policy is contingent on the member having this benefit.

Description

Biofeedback or neurofeedback is often referred to as electroencephalographic (EEG) biofeedback or brain wave training. It is a noninvasive technique intended to enable a member/enrollee to learn how to change a physiological activity for the purpose of improving health and performance. It employs instruments that measure physiological activities such as brainwaves, heart rate, breathing rate, muscle activity and skin temperature.¹

Policy/Criteria

- I. It is the policy of Centene Advanced Behavioral Health and health plans affiliated with Centene Corporation[®] that up to 25 sessions of *initial* behavioral health-related biofeedback is **medically necessary** if all the following are met:
 - A. Diagnosis of anxiety disorder or post-traumatic stress disorder as listed in the most current version of the Diagnostic and Statistical Manual of Mental Disorders;
 - B. There are significant symptoms that interfere with the member/enrollee's ability to function in at least one life area as measured by a widely recognized validated standardized severity scale focused on the symptom profile;
 - C. The member/enrollee is motivated to actively participate in the treatment plan, including being responsive to the care plan requirements (e.g., practice and follow-through at home);
 - D. The member/enrollee is capable of participating in the treatment plan (physically as well as intellectually);
 - E. Comprehensive treatment plan includes biofeedback as an adjunctive intervention in addition to other primary evidence-based interventions;
 - F. The condition can be appropriately treated with biofeedback (e.g., existing pathology does not prevent success of the treatment);
 - G. There is evidence that standard evidence-based outpatient treatments (including psychotherapy and medication management) are considered insufficient to treat the member/enrollee's condition safely and effectively;
 - H. There is a readily identifiable response measurable by a symptom specific validated standardized scale;
 - I. Biofeedback training is performed by a physician or qualified non-physician practitioner who has undergone biofeedback training and certification. This can include nurse practitioners, physician assistants, qualified mental health professionals, psychologists and, where applicable, biofeedback technicians;
 - J. Treatment plan is individualized with clearly stated realistic goals and objectives;
 - K. Treatment is structured to achieve optimum benefit and expected benefit is documented

CLINICAL POLICY

Biofeedback for Behavioral Health Disorders

- L. There is documented planned transition out of biofeedback from the start of treatment, which may include ensuring the ability of the member/enrollee to continue the biofeedback-learned techniques independently after the biofeedback sessions end.
- II.** It is the policy of Centene Advanced Behavioral Health and health plans affiliated with Centene Corporation that up to an additional 20 sessions for the *continuation* of behavioral health-related biofeedback will be reviewed on a case-by-case basis by a Medical Director, informed by all the following:
- A. Initial criteria are still met;
 - B. The frequency of sessions is scheduled to occur at a rate consistent with the presenting symptoms and showing results, while a lower rate may impede progress;
 - C. Progress related to biofeedback can be clearly described by at least a 25% reduction in severity compared to the last review;
 - D. When medically necessary, appropriate psychopharmacological intervention is provided;
 - E. There is documented planned transition out of biofeedback from the start of treatment, which includes, but is not limited to the following:
 - 1. Identifies a plan which ensures the member/enrollee can continue biofeedback-learned techniques independently after the biofeedback sessions end;
 - 2. Identifies a goal with a clear and reasonable score range on a validated scale assessment which demonstrates meaningful progress from the treatment.
- III.** It is the policy of Centene Advanced Behavioral Health and health plans affiliated with Centene Corporation that biofeedback is **no longer medically necessary** and discharge from treatment is medically appropriate when any one of the following are met:
- A. The documented goals and objectives have been substantially achieved;
 - B. The member/enrollee no longer meets initiation or continuation criteria, or symptom severity has dropped by 50%;
 - C. Member/enrollee is not engaging in treatment, rendering biofeedback ineffective, despite multiple documented attempts to address non-participation issues;
 - D. Member/enrollee refuses treatment;
 - E. Member/enrollee is not making progress toward treatment goals and there is no reasonable expectation of progress with this treatment approach;
 - F. It is reasonably predicted that continuing improvement can occur after discontinuation of biofeedback with ongoing psychotherapy, medication management and/or community support.
- IV.** It is the policy of Centene Advanced Behavioral Health and health plans affiliated with Centene Corporation that biofeedback that current evidence does not support the safety and efficacy of biofeedback for any behavioral health diagnosis other than what is noted in this policy as medically necessary.

Background

During a biofeedback session, a therapist applies electrical sensors to various parts of a patient's body. These sensors will monitor the physiological response to stress, for example, muscle contraction during a tension headache, and then feed the information back to a person via auditory (hearing) and visual (seeing) cues. These cues may be in the form of a beeping sound or

CLINICAL POLICY

Biofeedback for Behavioral Health Disorders

a flashing light. Target signal (e.g., related to a symptom of disorder) is measured and fed back to a participant enabling them to find their own strategy to control this signal and then adjust this strategy to master self-regulatory performance which then may be generalized to everyday life.²

The Foundation for Peripheral Neuropathy states, “Biofeedback is a physiologically based learning tool to help people recognize how their physiologies are functioning under various circumstances. They can use this information to learn how to control those aspects that are not functioning optimally. Biofeedback is NOT used as a treatment alone, nor can it be used alone to make a diagnosis. It is an adjunctive tool to be combined with other standard interventions carried out by knowledgeable clinicians, educators, or coaches.”²

“There are different physiological processes that have been implemented for biofeedback procedures, including both the central and autonomous nervous systems. Electromyography biofeedback (EMGB), skin conductance biofeedback or heart rate variability biofeedback (HRVB) are some of the most used peripheral responses, while electroencephalographic (EEG) and functional magnetic resonance imaging neurofeedback (fMRI-NF) are two of the most common techniques using neural activity”³

The practical implementation of neurofeedback as a clinical therapy is currently not regulated. This applies to the educational standards, medical security, and the usage of standard protocols indicated for specific disorders. the need for further research into the effectiveness of already available and newly developed neurofeedback protocols (i.e., the number of sessions, targeted brain area, selected brain parameter, working mechanism) in addition to proper “agreed-upon standards” and training within the field of neurofeedback.⁴

Biofeedback for behavioral health conditions generally do not meet the criteria standard as an evidence-based treatment. There is weak scientific evidence found in the nationally recognized literature about the efficacy of Neurosound/Biosound treatment as applied to billing under the Neurofeedback CPT code. CABH will not authorize Neurosound/Biosound under the Neurofeedback CPT code.

Coding Implications

This clinical policy references Current Procedural Terminology (CPT®). CPT® is a registered trademark of the American Medical Association. All CPT codes and descriptions are copyrighted 2022, American Medical Association. All rights reserved. CPT codes and CPT descriptions are from the current manuals and those included herein are not intended to be all-inclusive and are included for informational purposes only. Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

CPT® Codes	Description
90901	Biofeedback training by any modality
90875	30 minutes of individual psychophysiological therapy incorporating biofeedback training by any modality (face-to-face with patient), with psychotherapy

CPT® Codes	Description
90876	45 minutes of individual psychophysiological therapy incorporating biofeedback training by any modality (face-to-face with the patient), with psychotherapy

Reviews, Revisions, and Approvals	Revision Date	Approval Date
CBH Clinical Policy CP.BH.300 Neurofeedback for Behavioral Health Disorders adapted from MHN Clinical Policy HNCA.CP.MP.162 Neurofeedback for Behavioral Health Disorders.	05/20	5/20
<p>Annual review. Changed Centene Behavioral Health with Centene Advanced Behavioral Health.</p> <p>Revisions:</p> <p><u>Revision to Description Section:</u></p> <ul style="list-style-type: none"> The FDA has not approved this treatment as safe and effective for any condition. CMS has not approved this treatment as Reasonable and Necessary for any condition. It currently remains Experimental and Investigational. <p><u>Revision to Policy and Criteria Section, I, B, and F, G and H</u></p> <ul style="list-style-type: none"> There are significant symptoms that interfere with the individual’s ability to function in at least one life area as measured by a widely recognized validated standardized severity scale focused on the symptom profile. There is evidence that standard evidence-based outpatient treatments (including psychotherapy and medication management) are considered insufficient to treat the patient’s condition safely and effectively There is a readily identifiable response measurable by a symptom specific validated standardized scale. Neurofeedback training is performed by a physician or qualified non-physician practitioner who has undergone neurofeedback training and certification. This can include nurse practitioners, physician assistants, qualified mental health professionals, psychologists, and where applicable biofeedback technicians <p><u>Background Section Update:</u></p> <ul style="list-style-type: none"> Neurofeedback for behavioral health conditions generally do not meet the criteria standard as an evidence-based treatment. Although not conclusive, the treatment of anxiety disorders using neurofeedback is mostly based on observational history and case reports. Description section, section I, Policy Criteria, sections B, F, G & H; and the last paragraph in the background section. References reviewed and updated. 	5/21	6/21
Annual review conducted. Neurofeedback references changed to biofeedback to align with the Centene Policy CP.MP.168 for Biofeedback for non-behavioral health diagnoses; Added references to CMS NCD -	5/22	6/22

Reviews, Revisions, and Approvals	Revision Date	Approval Date
Biofeedback Therapy (30.1) and FDA approved as Class II; and 45 minutes to CPT code 90875, and 30 minutes to CPT code 90876.		
Ad hoc Review. “Last Review Date” in policy header changed to “Date of Last Revision,” and “Date” in the revision log was changed to “Revision Date.” Removed description paragraph pertaining to NCD biofeedback verbiage and FDA approval. Replaced all instances of “patient” with “member/enrollee.” Replaced “or” and “commas” with “semi-colons. Replaced all instances of the statement: “It is the policy of Centene Advanced Behavioral Health (CABH)” with the statement “It is the policy of Centene Advanced Behavioral Health and health plans affiliated with Centene Corporation.” Incorporated treatment plan information into section I. I-K. In section III.B, replaced the word “admission” with “initiation or continuation criteria.” In section IV, replaced “Experimental/investigational” verbiage with “current evidence does not support the safety and efficacy of biofeedback.” Removed verbiage pertaining to state criteria for biofeedback. Removed verbiage between the ICD-10 coding table and revision log that referred to LCDs and/or state regulations taking precedence, as this is duplicative with the policy disclaimer. Removed references related to ADHD severity scales as ADHD is not an included indication. Updated coding implications verbiage to reflect 2021 AMA copyright. Replaced all instances of “dashes (-) in page numbers with the word “to.”	11/22	12/22
Annual Review. Changed instances of the word “patient” and “individual” within the criteria section to “member/enrollee.” Added I.E., “Comprehensive treatment plan includes biofeedback as an adjunctive intervention in addition to other primary evidence-based interventions.” In section II. Added the statement “that up to 20 sessions for the continuation of behavioral health-related biofeedback will be reviewed on a case-by-case basis by a Medical Director”. Removed ICD 10 Code chart. Background and references reviewed and updated. Reviewed by external specialist.	6/23	
Clarified policy description statement II. adding that “up to an additional” 20 sessions for the continuation of behavioral health-related biofeedback will be reviewed. In II.C. Removed the statement “as compared to the base line severity score” and added the statement “compared to the last review.” Clarified policy statement in II.E. adding: “II.E.1. Identifies a plan which ensures the member/enrollee can continue biofeedback-learned techniques independently after the biofeedback sessions end; and II.E.2: Identifies a goal with a clear and reasonable score range on a validated scale assessment which demonstrates meaningful progress from the treatment.”	7/23	07/23

References

1. American Psychological Association. Biofeedback and Applied Psychophysiology. <https://www.apa.org/ed/graduate/specialize/biofeedback>. Published September 2019. Accessed May16, 2023.

CLINICAL POLICY

Biofeedback for Behavioral Health Disorders

2. The Foundation for Peripheral Neuropathy. Biofeedback Therapy. <https://www.foundationforpn.org/living-well/integrative-therapies/biofeedback-therapy/>. Accessed May 16, 2023.
3. Fernández-Alvarez J, Grassi M, Colombo D, et al. Efficacy of bio- and neurofeedback for depression: a meta-analysis. *Psychol Med*. 2022;52(2):201-216. doi:10.1017/S0033291721004396
4. Enriquez-Geppert S, Smit D, Pimenta MG, Arns M. Neurofeedback as a Treatment Intervention in ADHD: Current Evidence and Practice. *Curr Psychiatry Rep*. 2019;21(6):46. Published 2019 May 28. doi:10.1007/s11920-019-1021-4
5. International Society for Neuroregulation and Research. What is Neurofeedback. <https://isnr.org/what-is-neurofeedback>. Published January 10, 2019. Updated June 11, 2020. Accessed May 16, 2023.
6. National Coverage Determination, (NCD): Biofeedback Therapy (Publication Number 100.3; Manual Section Number 30.1). Centers for Medicare and Medicaid Services. <https://www.cms.gov/medicare-coverage-database/view/ncd.aspx?NCDId=41>. Accessed May 16, 2023.
7. Blaskovits F, Tyerman J, Luctkar-Flude M. Effectiveness of neurofeedback therapy for anxiety and stress in adults living with a chronic illness: a systematic review protocol. *JBIS Database System Rev Implement Rep*. 2017;15(7):1765-1769. doi:10.11124/JBISRIR-2016-003118
8. Marzbani H, Marateb HR, Mansourian M. Neurofeedback: A Comprehensive Review on System Design, Methodology and Clinical Applications. *Basic Clin Neurosci*. 2016;7(2):143-158. doi: 10.15412/J.BCN.03070208
9. Hou Y, Zhang S, Li N, Huang Z, Wang L, Wang Y. Neurofeedback training improves anxiety trait and depressive symptom in GAD. *Brain Behav*. 2021;11(3): e02024. doi:10.1002/brb3.2024
10. Tolin DF, Davies CD, Moskow DM, Hofmann SG. Biofeedback and Neurofeedback for Anxiety Disorders: A Quantitative and Qualitative Systematic Review. *Adv Exp Med Biol*. 2020; 1191:265-289. doi:10.1007/978-981-32-9705-0_16
11. Melnikov MY. The Current Evidence Levels for Biofeedback and Neurofeedback Interventions in Treating Depression: A Narrative Review. *Neural Plast*. 2021; 2021:8878857. Published 2021 Feb 4. doi:10.1155/2021/8878857
12. Chiba T, Kanazawa T, Koizumi A, et al. Current Status of Neurofeedback for Post-traumatic stress disorder: A Systematic Review and the Possibility of Decoded Neurofeedback. *Front Hum Neurosci*. 2019; 13:233. Published 2019 Jul 17. doi:10.3389/fnhum.2019.00233

Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. “Health Plan” means a health

CLINICAL POLICY

Biofeedback for Behavioral Health Disorders

plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan's affiliates, as applicable.

The purpose of this clinical policy is to provide a guide to medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage decisions and the administration of benefits are subject to all terms, conditions, exclusions, and limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy, contract of insurance, etc.), as well as to state and federal requirements and applicable Health Plan-level administrative policies and procedures.

This clinical policy is effective as of the date determined by the Health Plan. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. The Health Plan retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

This clinical policy does not constitute medical advice, medical treatment, or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care and are solely responsible for the medical advice and treatment of members. This clinical policy is not intended to recommend treatment for members. Members should consult with their treating physician in connection with diagnosis and treatment decisions.

Providers referred to in this clinical policy are independent contractors who exercise independent judgment and over whom the Health Plan has no control or right of control. Providers are not agents or employees of the Health Plan.

This clinical policy is the property of the Health Plan. Unauthorized copying, use, and distribution of this clinical policy or any information contained herein are strictly prohibited. Providers, members, and their representatives are bound to the terms and conditions expressed herein through the terms of their contracts. Where no such contract exists, providers, members and their representatives agree to be bound by such terms and conditions by providing services to members and/or submitting claims for payment for such services.

Note: For Medicaid members, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

Note: For Medicare members, to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs, LCDs, and Medicare Coverage Articles should be reviewed prior to applying the criteria set forth in this clinical policy. Refer to the CMS website at <http://www.cms.gov> for additional information.

CLINICAL POLICY

Biofeedback for Behavioral Health Disorders



©2020 Centene Corporation. All rights reserved. All materials are exclusively owned by Centene Corporation and are protected by United States copyright law and international copyright law. No part of this publication may be reproduced, copied, modified, distributed, displayed, stored in a retrieval system, transmitted in any form or by any means, or otherwise published without the prior written permission of Centene Corporation. You may not alter or remove any trademark, copyright or other notice contained herein. Centene® and Centene Corporation® are registered trademarks exclusively owned by Centene Corporation.