

See <u>Important Reminder</u> at the end of this policy for important regulatory and legal information.

Please refer to the Centene Policy CP.MP.168 Biofeedback for non-behavioral health diagnoses.

Description

Biofeedback for psychological conditions or neurofeedback is a noninvasive technique intended to enable an individual 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. Neurofeedback is a process in which a patient learns to increase or decrease specific brain activity using real-life feedback from a scalp electroencephalogram (EEG). Patients are encouraged to increase desired brain activity and decrease undesired activity.

Policy/Criteria

- I. It is the policy of Nevada Silver Summit Health Plan and Centene Advanced Behavioral Health that up to 25 sessions of *initial* behavioral health related neurofeedback is **medically necessary** if all the following are met:
 - A. Diagnosis (as listed in the most current version of the Diagnostic and Statistical Manual of Mental Disorders (DSM 5) meets one of the following:
 - 1. Attention deficit disorders;
 - 2. Anxiety disorders;
 - 3. Depressive disorders;
 - 4. Bipolar disorders;
 - 5. Obsessive compulsive disorders;
 - 6. Oppositional defiant and/or reactive attachment disorders;
 - 7. Post-traumatic stress disorders;
 - 8. Schizophrenia 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 and 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. Treatment plan is individualized with clearly stated realistic goals and objectives;
 - E. Treatment is structured to achieve optimum benefit and expected benefit is documented;



Neurofeedback for Behavioral Health Disorders

- F. The member/enrollee is capable of participating in the treatment plan (physically as well as intellectually);
- G. The condition can be appropriately treated with neurofeedback (e.g., existing pathology does not prevent success of the treatment);
- H. 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;
- I. There is evidence that standard evidence-based outpatient treatments (including psychotherapy and medication management) are considered insufficient to safely and effectively treat the member/enrollee's condition;
- J. When medically necessary, appropriate psychopharmacological intervention is provided;
- K. There is a readily identifiable response measurable by a symptom-specific validated, standardized scale;
- L. 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;
- M. There is documented planning for transition out of neurofeedback 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 Nevada Silver Summit Health Plan and Centene Advanced Behavioral Health that *continuation* of behavioral health related neurofeedback is **medically necessary** when all the following are met:
 - A. Initial criteria in I.B-M are still met;
 - B. *Total* requested sessions (combined between initial and continuing treatment) meet one of the following:
 - 1. Attention deficit disorders, up to 40 total sessions;
 - 2. Anxiety disorders, up to 30 sessions;
 - 3. Depressive disorders, up to 25 sessions;
 - 4. Bipolar disorders, up to 50 sessions;
 - 5. Obsessive compulsive disorders, *up to 40* sessions;
 - 6. Oppositional defiant and/or reactive attachment disorders, up to 50 sessions;
 - 7. Post-traumatic stress disorders, up to 35 sessions;
 - 8. Schizophrenia disorders, up to 50 sessions;
 - C. Progress related to neurofeedback can be clearly described by at least a 25% reduction in severity, as compared to the baseline severity score.
- **III.** It is the policy of Nevada Silver Summit Health Plan and Centene Advanced Behavioral Health that neurofeedback is **not medically necessary** and discharge from treatment is medically appropriate when any of the following are met:
 - A. The documented goals and objectives have been substantially achieved;
 - B. Member/enrollee no longer meets initial, or continuation criteria or symptom severity has dropped by 50%;
 - C. Member/Enrollee is not engaging in treatment, rendering neurofeedback ineffective, despite multiple documented attempts to address non-participation issues;



Neurofeedback for Behavioral Health Disorders

- 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 neurofeedback with ongoing psychotherapy, medication management and/or community support.
- **IV.** It is the policy of Nevada Silver Summit Health Plan and Centene Advanced Behavioral Health that current evidence does not support the safety and efficacy of neurofeedback for any behavioral health diagnosis other than what is noted in this policy as medically necessary, or when requested for the delivery of neurosound/biosound.

Background

During neurofeedback, the member/enrollee is seated in a comfortable chair facing a computer screen. Electrodes are placed on the patient's scalp. Target brain waves and event-related potentials are recorded and processed by an electroencephalograph and computer; concurrently, presented ('fed back') to the patient, typically as a visual representation (e.g., a ball moving up or down to signify fast and slow-wave activity), or in the format of a video game. Feedback for desirable activity may include sounds or visual cues (e.g., smiley face), points, or increased control in the computer game. Undesirable activity is discouraged by similar means. Members/Enrollees are instructed to use the feedback to regulate their brain activity. Sessions last between 30 and 60 minutes. A therapist is typically present to facilitate learning (e.g., asks the patient about strategies that seem successful, encourages the patient to try different strategies until a successful one is identified). Members/Enrollees are instructed to practice strategies at home between sessions.

These instruments offer almost instant "feedback" information to the user. The presentation of this information, along with changes in thinking, emotions and behavior, may support learning of a skill set of techniques leading to desirable physiological changes. Over time, such changes may endure or the learned skills may be applied without the continued use of an instrument.

Neurofeedback has been used to treat children and adults with anxiety and PTSD. It has been typically performed in the outpatient setting and it is usually not provided as a stand-alone treatment, but in conjunction with other therapies such as psychotherapy and medication management.

Neurofeedback for behavioral health conditions, including neurosound/biosound, generally do not meet the criteria standard as an evidence-based treatment. 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. The treatment of anxiety disorders using neurofeedback is mostly based on observational history and case reports.



Neurofeedback for Behavioral Health Disorders

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 2021, 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 [®]	Description
Codes	
90901	Biofeedback training by any modality
90875	Individual psychophysiological therapy incorporating biofeedback training by any modality (face-to-face with the patient), with psychotherapy (eg, insight oriented, behavior modifying or supportive psychotherapy); 30 minutes
90876	Individual psychophysiological therapy incorporating biofeedback training by any modality (face-to-face with the patient), with psychotherapy (eg, insight oriented, behavior modifying or supportive psychotherapy); 45 minutes

Nevada Medicaid Services Manual – Chapter 400 – Mental Health and Alcohol/Substance Abuse Services covers the below ICD-10 diagnoses:

ICD 10 CM Code	Description
F32.3, F32.9, F33.3, F33.40, F33.9	Depressive Disorders
F30.10, F30.9, F31.0, F31.10, F31.89,	Bipolar Disorders
F31.30, F31.60, F31.70, F31.71, F31.72,	
F31.9 and F39	
F42	Obsessive Compulsive Disorder
F41.0, F34.1	Anxiety Disorders
F43.10, F43.11, F43.12, F43.21	Post-Traumatic Stress Disorders
F91.3, F94.1, F93.8, F94.2, F94.9, F98.8	Oppositional Defiant Disorders and/or
	Reactive Attachment
	Disorders
F20.1, F20.2, F20.0, F20.3, F20.5, F20.81,	Schizophrenia Disorders
F20.89, F20.9, F25.0, F25.1, F25.8, F25.9	
F90.0, F90.8, F90.9	Attention Deficit Disorders

Reviews, Revisions, and Approvals	Revision Date	Approval Date
Policy developed by MHN specifically neurofeedback for behavioral health disorders	01/19	01/19



Neurofeedback for Behavioral Health Disorders

Reviews, Revisions, and Approvals	Revision Date	Approval Date
Reviewed by MHN QI Committee	12/19	1/20
Reviewed by HN Medical Advisory Council	1/20	
Under 1.f – revised to state 'insufficient, under 1.h, removed" clinical		
nurse specialists" and added psychologists		
CBH Clinical Policy NV.CP.BH.300 Neurofeedback for Behavioral	05/20	5/20
Health Disorders adapted from MHN Clinical Policy	00/20	5720
HNCA.CP.MP.162 Neurofeedback for Behavioral Health Disorders.		
Added ICD-10 diagnosis and codes from the		
Neurofeedback – Mental Health and		
Alcohol/Substance Abuse Services for the Depressive Disorders,		
Bipolar Disorders, Obsessive Compulsive Disorders, Oppositional		
Defiant Disorders and/or Reactive Attachment Disorders,		
Schizophrenia Disorders, Attention Deficit Hyperactivity Disorder-		
Combined Presentation, Attention Deficit Hyperactivity Disorder-		
Predominantly Hyperactive/Impulsive Presentation, Attention Deficit		
Hyperactivity Disorder- Predominantly Inattentive Presentation		
Added Nevada Silver Summit Health Plan and Centene Behavioral	11/20	11/20
	11/20	11/20
Health to the Policy / Criteria Section I, II, III and IV.	5/21	5/21
Annual review. Changed Centene Behavioral Health with Centene	5/21	5/21
Advanced Behavioral Health. Annual review. Changed Centene		
Behavioral Health with Centene Advanced Behavioral Health.		
Revisions:		
<u>Revision to Description Section:</u>		
• 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.		
<u>Revision to Policy and Criteria Section, I. B, and F, G and H</u>		
• 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 safely and		
effectively treat the patient's condition		
• 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		



Neurofeedback for Behavioral Health Disorders

Reviews, Revisions, and Approvals	Revision Date	Approval Date
health professionals, psychologists and where applicable biofeedback technicians		
Background Section Update:		
• 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.		
• Updated ICD-10 diagnosis and codes from the Nevada		
Medicaid Services Manual – Chapter 400.		
Upon the plan's request the policy was eliminated. The State of NV	7/21	7/21
removed this as a covered benefit.	11/01	11/01
The policy was reinstated based on the health plan's request. CMS	11/21	11/21
NV decided against the removal of the services. The CPSC reviewed		
and approved on 11/30/21. "Last Review Date" in policy header		
changed to "Date of Last Revision," and "Date" in the revision log		
was changed to "Revision Date."	11/22	12/22
Annual Review. Description verbiage regarding FDA and CMS stance	11/22	12/22
on neurofeedback moved to background. Specified that initial		
description sentence applies to biofeedback for psychological		
conditions. In section I, added ICD-10 diagnoses "Attention Deficit		
Disorders, Anxiety disorders, Depressive Disorders, Bipolar Disorders, Obsessive Compulsive Disorders, Oppositional Defiant		
Disorders and/or Reactive Attachment Disorders, or Post-Traumatic		
Stress Disorders and Schizophrenia Disorders" to the policy/criteria		
section I.A based on update to the Nevada Medicaid Services Manual		
- Chapter 400. In policy statement I. added that up to 25 sessions will		
be initially approved. Incorporated into section I: C, D, H, J and M		
from section II for policy consistency between initiation and		
continuation of services. In section II., specified that initial criteria in		
I.B-M must be met. Added criteria in II.B for total requested session		
limits per the NV manual. Removed statement "Reconsideration of		
medical necessity should be made if more than 25 neurofeedback		
treatment sessions in a 12 month period are necessary". Replaced all		
instances of "patient" and "individual" with "member/enrollee". In		
section III, replaced the word "or" with a "semicolon". Replaced		
"Experimental/investigational" verbiage in section IV with "current		
evidence does not support the safety and efficacy of neurofeedback,"		
and added that neurosound/biosound is not supported. Reworded		
background statement regarding biosound/neurosound. Updated		
ICD10 CM code table for consistency with NV manual. Removed		
table of general ICD 10 CM diagnosis codes that support coverage		



Neurofeedback for Behavioral Health Disorders

Reviews, Revisions, and Approvals	Revision Date	Approval Date
criteria. References reviewed, updated, and reformatted. Replaced all instances of "dashes (-)" in page numbers with the word "to".		

References

- Nevada Medicaid Services Manual Changes Chapter 4--- Mental Health and Alcohol/Substance Abuse Services. Website. <u>https://dhcfp.nv.gov/Resources/AdminSupport/Manuals/MSM/C400/Chapter400/</u>. Updated March,21, 2022. Accessed August 22, 2022.
- 2. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 5th ed. Washington D.C.: 2013. Accessed August 22, 2022.
- 3. White, E, Groeneveld K, Tittle R, et al. Combined Neurofeedback and Heart Rate Variability Training for Individuals with Symptoms of Anxiety and Depression: A retrospective Study. *NeuroRegulation.* 2017; 4(1). doi: https://doi.org/10.15540/nr.4.1.37
- 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. *JBI Database System Rev Implement Rep.* 2017;15(7):1765 to 1769. doi:10.11124/JBISRIR-2016-003118
- Sadjadi S, Hashemian P. Effectiveness of Neurofeedback Therapy in Children with Separation Anxiety Disorder. *Journal of Psychiatry*. 2014; 17(6): 1 to 3. doi:10.4172/2378-5756.10001511000149
- Marzbani H, Marateb HR, Mansourian M. Neurofeedback: A Comprehensive Review on System Design, Methodology and Clinical Applications. *Basic Clin Neurosci*. 2016;7(2):143 to 158. doi: 10.15412/J.BCN.03070208
- 7. GAD-7 source: https://patient.info/doctor/generalised-anxiety-disorder-assessment-gad-7
- 8. 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
- 9. Alneyadi M, Drissi N, Almeqbaali M, Ouhbi S. Biofeedback-Based Connected Mental Health Interventions for Anxiety: Systematic Literature Review. *JMIR Mhealth Uhealth*. 2021;9(4): e26038. Published 2021 Apr 22. doi:10.2196/26038
- 10. The Association for Applied Psychophysiology and Biofeedback, Inc. Standards for Performing Biofeedback. <u>https://aapb.org</u>. Accessed September 21, 2022.
- Linhartová P, Látalová A, Kóša B, Kašpárek T, Schmahl C, Paret C. fMRI neurofeedback in emotion regulation: A literature review. *Neuroimage*. 2019; 193:75 to 92. doi: 10.1016/j.neuroimage.2019.03.011. Accessed November 9, 2022.
- 12. Hampson M, Ruiz S, Ushiba J. Neurofeedback. *Neuroimage*. 2020; 218:116473. doi: 10.1016/j.neuroimage.2019.116473. Accessed November 9, 2022.

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



Neurofeedback for Behavioral Health Disorders

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 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/enrollees. This clinical policy is not intended to recommend treatment for members/enrollees. Members/enrollees 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/enrollees 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/enrollees and their representatives agree to be bound by such terms and conditions by providing services to members/enrollees and/or submitting claims for payment for such services.

Note: For Medicaid members/enrollees, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take



Neurofeedback for Behavioral Health Disorders

precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

Note: For Medicare members/enrollees, 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 <u>prior to</u> applying the criteria set forth in this clinical policy. Refer to the CMS website at <u>http://www.cms.gov</u> for additional information.

©2017 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.