Treatment of Tinnitus

Policy # 00127
Original Effective Date: 09/18/2002
Current Effective Date: 05/01/2025

Applies to all products administered or underwritten by Blue Cross and Blue Shield of Louisiana and its subsidiary, HMO Louisiana, Inc. (collectively referred to as the "Company"), unless otherwise provided in the applicable contract. Medical technology is constantly evolving, and we reserve the right to review and update Medical Policy periodically.

Note: Cochlear Implant is addressed separately in medical policy 00017.

Note: Transcranial Magnetic Stimulation as a Treatment of Depression and Other Psychiatric/Neurologic Disorders is addressed separately in medical policy 00121.

Note: Auditory Brainstem Implant is addressed separately in medical policy 00475.

When Services Are Eligible for Coverage

Coverage for eligible medical treatments or procedures, drugs, devices or biological products may be provided only if:

- *Benefits are available in the member's contract/certificate, and*
- *Medical necessity criteria and guidelines are met.*

Based on review of available data, the Company may consider psychological coping therapy including cognitive-behavioral therapy, self-help cognitive-behavioral therapy, tinnitus coping therapy, acceptance and commitment therapy, and psychophysiological treatment, for persistent and bothersome tinnitus, when self-help or internet-based coping therapies were ineffective, to be **eligible for coverage.****

When Services Are Considered Investigational

Coverage is not available for investigational medical treatments or procedures, drugs, devices or biological products.

Based on review of available data, the Company considers treatment of tinnitus with **ANY** of the following therapies to be **investigational*:**

- Biofeedback; **OR**
- Tinnitus maskers, customized sound therapy; **OR**
- Combined psychological and sound therapy (eg, tinnitus retraining therapy) ; **OR**
- Transcranial magnetic stimulation; **OR**
- Transcranial direct current stimulation; **OR**
- Electrical transcutaneous electrical stimulation of the ear, electromagnetic energy; **OR**
- Transmeatal laser irradiation.

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Note: This policy does not address surgical (eg, cochlear or brainstem implant), pharmacologic treatment of tinnitus, (e.g., the use of amitriptyline or other tricyclic antidepressants), or injection of botulinum toxin.

Background/Overview

Tinnitus

Tinnitus describes the perception of any sound in the ear in the absence of an external stimulus and presents as a malfunction in the processing of auditory signals. A hearing impairment, often noise-induced or related to aging, is commonly associated with tinnitus. Clinically, tinnitus is subdivided into subjective and objective types. The latter describes the minority of cases, in which an external stimulus is potentially heard by an observer (eg, by placing a stethoscope over the patient's external ear). Common causes of objective tinnitus include middle ear and skull-based tumors, vascular abnormalities, and metabolic derangements. The more common type is subjective tinnitus, which is frequently self-limited. In a small subset of patients with subjective tinnitus, its intensity and persistence lead to disruption of daily life. While many patients habituate to tinnitus, others may seek medical care if the tinnitus becomes too disruptive.

Many treatments are supportive because, currently, there is no cure. One treatment, called tinnitus masking therapy, has focused on the use of devices worn in the ear that produce a broad band of continuous external noise that drowns out or masks the tinnitus. Psychological therapies may also be provided to improve coping skills, typically requiring 4 to 6 one-hour visits over an 18-month period. Tinnitus retraining therapy, also referred to as tinnitus habituation therapy, is based on the theories of Jastreboff, who proposed that tinnitus itself is related to the normal background electrical activity in auditory nerve cells, but the key factor in some patients' unpleasant response to the noise is due to a spreading of the signal and an abnormal conditioned reflex in the extra-auditory limbic and autonomic nervous systems. The goal of tinnitus retraining therapy is to habituate (retrain) the subcortical and cortical response to the auditory neural activity. In contrast to tinnitus masking, the auditory stimulus is not intended to drown out or mask the tinnitus but is set at a level such that the tinnitus can still be detected. This strategy is thought to enhance the extinction of the subconsciously conditioned reflexes connecting the auditory system with the limbic and autonomic nervous systems by increasing neuronal activity within the auditory system. Treatment may also include the use of hearing aids to increase external auditory stimulation. The Heidelberg model uses an intensive program of active and receptive music therapy, relaxation with habituation to the tinnitus sound, and stress mapping with a therapist.

Sound therapy is a treatment approach based on evidence of auditory cortex reorganization (cortical remapping) with tinnitus, hearing loss, and sound/frequency training. One type of sound therapy uses an ear-worn device (Neuromonics Tinnitus Treatment) prerecorded with selected relaxation audio and other sounds spectrally adapted to the individual patient's hearing thresholds. This is achieved by boosting the amplitude of those frequencies at which an audiogram has shown the

patient to have a reduced hearing threshold. Also being evaluated is auditory tone discrimination training at or around the tinnitus frequency. Another type of sound therapy being investigated uses music with the frequency of the tinnitus removed (notched music) to promote the reorganization of sound processing in the auditory cortex. One theory behind the notched music is that tinnitus is triggered by injury to the inner ear hair cell population, resulting in both a loss of excitatory stimulation of the represented auditory cortex and loss of inhibition on the adjoining frequency areas. It is proposed that this loss of inhibition leads to hyperactivity and overrepresentation at the edge of the damaged frequency areas and that removing the frequencies overrepresented at the audiometric edge will result in the reorganization of the brain.

Electrical stimulation to the external ear has also been investigated and is based on the observation that electrical stimulation of the cochlea associated with a cochlear implant may be associated with a reduction in tinnitus. Transcranial magnetic stimulation, electrical stimulation, and transmeatal low-power laser irradiation have also been evaluated.

FDA or Other Governmental Regulatory Approval

U.S. Food and Drug Administration (FDA)

The Neuromonics®‡ Tinnitus Treatment is one of many tinnitus maskers cleared for marketing by the U.S. Food and Drug Administration (FDA) through the 510(k) process. It is "…intended to provide relief from the disturbance of tinnitus while using the system, and with regular use (over several months) may provide relief to the patient whilst not using the system."
FDA product code: KLW.

Table 1. Devices Cleared by the U.S. Food and Drug Administration

Devices	Manufacturer	Date Cleared	510(k) No.	Indication
Peace N Quiet	PNQ Health	02/27/2024	K233435	Tinnitus Relief
Tinearity G1 (6103); Tinearity G1 Adapters X3 (6042)	Duearity AB	06/30/2023	K223694	Tinnitus Relief
Tinnitogram Signal Generator	Goldenear Company, Inc.	02/01/2023	K221168	Tinnitus Relief
Silentcloud	Aureliym GmBH	01/04/2023	K221125	Tinnitus Relief
Multiflex Tinnitus Technology	Starkey Laboratories	6/19/2020	K201370	Tinnitus Relief

Tinnitus Sound Generator Module	Gn Hearing A/S	2/20/2020	K193303	Tinnitus Relief
Tinnitus Sound Generator Module	Gn Hearing A/S	11/30/2018	K180495	Tinnitus Relief
Audifon Tinnitus-Module	Audiofon Usa Inc.	10/19/2017	K171243	Tinnitus Relief
Tinnilogic Mobile Tinnitus Management De	Jiangsu Betterlife Medical Co., Ltd.	5/17/2017	K163094	Tinnitus Relief
Sound Options Tinnitus Treatment	Sound Options Tinnitus Treatments Inc.	9/28/2016	K161562	Tinnitus Relief
Hypersound Tinnitus Module	Turtle Beach Corporation	8/23/2016	K161331	Tinnitus Relief
Desyncra For Tinnitus Therapy System, De	Neurotherapies Reset Gmbh.	1/20/2016	K151558	Tinnitus Relief
Reve134	Kw Ear Lab, Inc	10/9/2015	K151719	Tinnitus Relief
Serenity	Sanuthera, Inc.	7/27/2015	K150014	Tinnitus Relief
Soundcure Serenade Tinnitus Treatment Sy	Soundcure, Inc.	4/13/2015	K150065	Tinnitus Relief
Levo Tinnitus Masking Software Device	Otoharmonics Corp	7/18/2014	K140845	Tinnitus Relief
Solace Sound Generators	Amplisound Hearing Products & Services	3/25/2014	K132965	Tinnitus Relief
Tinnitus Sound support	Oticon A/S	3/18/2014	K133308	Tinnitus Relief
Wave 2g, Soul	Hansaton Akustik Gmbh	1/3/2014	K130937	Tinnitus Relief

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Rationale/Source

This medical policy was developed through consideration of peer-reviewed medical literature generally recognized by the relevant medical community, U.S. Food and Drug Administration approval status, nationally accepted standards of medical practice and accepted standards of medical practice in this community, technology evaluation centers, reference to regulations, other plan medical policies, and accredited national guidelines.

Description

Various nonpharmacologic treatments are being evaluated to improve the symptoms of tinnitus. These approaches include psychological coping therapies, sound therapies, combined psychological and sound therapies, repetitive transcranial magnetic stimulation, electrical and electromagnetic stimulation, and transmeatal laser irradiation.

Summary of Evidence

For individuals who have persistent, bothersome tinnitus who receive psychological coping therapy, the evidence includes randomized controlled trials (RCTs) and meta-analyses of RCTs. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. These therapies are intended to reduce tinnitus impairment and improve health-related quality of life. Meta-analyses of a variety of cognitive behavioral therapies (CBTs) have found improvements in global tinnitus severity and quality of life, even when tinnitus loudness is not affected. Other RCTs have reported that a self-help/internet-based approach to CBT or acceptance and commitment therapy (ACT) may also improve coping skills. The evidence is sufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have tinnitus who receive sound therapy, the evidence includes RCTs and a systematic review of RCTs. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. The evidence on tinnitus masking includes RCTs and a systematic review of RCTs. The RCTs had medium- to high-risk of bias and did not show the efficacy of masking therapy. Research on customized sound therapy appears to be at an early stage. For example, the studies described the use of very different approaches for sound therapy, and it is not yet clear whether therapy is more effective when the training frequency is the same or adjacent to the tinnitus pitch. A 2016 trial, double-blind and adequately powered, found no benefit of notched music on the primary outcome measures of tinnitus perception and tinnitus distress, although the subcomponent score of tinnitus loudness was reported to be reduced. Two more recent RCTs evaluating notched music therapy for tinnitus found no significant differences in efficacy between this approach and ordinary music therapy or counseling. One additional RCT found tailor-made notched music therapy and tinnitus retraining therapy both improved tinnitus handicap inventory (THI) and visual analog scale (VAS) scores from baseline to 3 months follow-up, but the notched music therapy group had significantly improved THI scores at 1-month follow-up and VAS scores at 3 months follow-up compared to tinnitus retraining therapy. A benefit on tinnitus loudness, but

not tinnitus perception or tinnitus distress is of uncertain clinical significance, may be spurious, and would need corroboration in additional studies. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have tinnitus who receive combined psychological and sound therapy, the evidence includes RCTs. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. The evidence on tinnitus retraining therapy consists of a number of small randomized or quasi-RCTs. Collectively, the literature does not show consistent improvements in the primary outcome measure (THI or tinnitus questionnaire scores) when tinnitus retraining therapy is compared with active or sham controls. For Heidelberg neuro-music therapy, a trial has used an investigator-blinded RCT design and showed positive short-term results following treatment. However, the durability of treatment is also unknown. A large, multicenter RCT trial using an intensive, multidisciplinary intervention showed improvement in outcomes. However, it is uncertain whether the multiple intensive interventions used in this trial could be replicated outside of the investigational setting. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have tinnitus who receive transcranial magnetic stimulation, the evidence includes a number of small- to moderate-sized RCTs and systematic reviews. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. Results from these studies are mixed, with some trials reporting a statistically significant effect of repetitive transcranial magnetic stimulation (rTMS) on tinnitus severity and others reporting no significant difference. Larger controlled trials with longer follow-up are needed for this common condition. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have tinnitus who receive electrical or electromagnetic stimulation, the evidence includes a number of sham-controlled randomized trials. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. The available evidence does not currently support the use of these stimulation therapies. A 2015 sham-controlled study that was adequately powered found no benefit of transcranial direct current stimulation (tDCS). Moreover, while a 2017 meta-analysis found some benefit for tDCS, it was noted that further study would be needed to evaluate tDCS as a treatment option. Studies have not shown a benefit for direct current electrical stimulation of the ear. The evidence on electromagnetic energy includes a small RCT, which found no benefit for the treatment of tinnitus. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

For individuals who have tinnitus who receive transmeatal laser irradiation, the evidence includes RCTs and crossover trials. Relevant outcomes are symptoms, functional outcomes, quality of life, and treatment-related morbidity. The evidence for transmeatal laser irradiation includes a number of double-blind RCTs, most of which showed no treatment efficacy. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.

Supplemental Information

Practice Guidelines and Position Statements

Guidelines or position statements will be considered for inclusion in 'Supplemental Information' if they were issued by, or jointly by, a US professional society, an international society with US representation, or National Institute for Health and Care Excellence (NICE). Priority will be given to guidelines that are informed by a systematic review, include strength of evidence ratings, and include a description of management of conflict of interest.

American Academy of Otolaryngology – Head and Neck Surgeons

In 2014, the American Academy of Otolaryngology - Head and Neck Surgeons published evidence-based guidelines on tinnitus. Table 2 provides some of the Academy's recommendations.

Table 2. Guidelines on Treatment of Tinnitus

Recommendation	SOR	GOE
"Clinicians must differentiate patients with bothersome tinnitus from patients with nonbothersome tinnitus"	Strong recommendation	B
"Clinicians should distinguish patients with bothersome tinnitus of recent onset from those with persistent symptoms (≥6 months) to prioritize intervention and facilitate discussion about natural history and follow-up care"	Recommendation	B
"Clinicians may recommend sound therapy to patients with persistent, bothersome tinnitus"	Option	C
"Clinicians should recommend cognitive behavioral therapy to patients with persistent, bothersome tinnitus"	Recommendation	A
"Clinicians should not routinely recommend antidepressants, anticonvulsants, anxiolytics, or intratympanic medications for a primary indication of treating persistent, bothersome tinnitus"	Recommendation against	B
"Clinicians should not recommend transcranial magnetic stimulation for the routine treatment of patients with persistent, bothersome tinnitus"	Recommendation against	B

GOE: grade of evidence; SOR: strength of recommendation.

U.S. Preventive Services Task Force Recommendations

Not applicable.

Medicare National Coverage
The Centers for Medicare & Medicaid Services had a longstanding national coverage determination for tinnitus masking, which was retired in 2014.

Ongoing and Unpublished Clinical Trials
Some ongoing trials that might influence this review are listed in Table 3.

Table 3. Summary of Key Trials

NCT No.	Trial Name	Planned Enrollment	Completion Date
Ongoing			
NCT06584175	Guided Internet-Delivered Cognitive Behavioural Therapy for Adults with Tinnitus in Canada: a Randomized Controlled Trial	82	Dec 2025
NCT06635967	The Efficacy of Repetitive Transcranial Magnetic Stimulation in Patients With Chronic Subjective Tinnitus	120	Dec 2025
NCT04551404	Transcranial Electrical and Acoustic Stimulation for Tinnitus: A Randomized Double Blind Clinical Trial	40	Dec 2025
NCT03511807	Acoustic and Electrical Stimulation for the Treatment of Tinnitus	100	Jun 2026
NCT04661995	Notched Noise Therapy for Suppression of Tinnitus: A Randomized Controlled Trial	108	May 2026
NCT06104865	Sound Therapy for Adults With Chronic Tinnitus, Using (Resound Tinnitus Relief) Mobile Application	100	Jul 2024
Unpublished			
NCT03754127	A Randomized Controlled HD-tDCS Trial: Effects on Tinnitus Severity and Cognition	81	Mar 2022
NCT04663828	UNification of Treatments and Interventions for Tinnitus Patients - Randomized Clinical Trial (UNITI-RCT)	500	Jun 2023

NCT: national clinical trial.
[a] Denotes industry-sponsored or co-sponsored trial.

References

1. Pichora-Fuller MK, Santaguida P, Hammill A, et al. Evaluation and Treatment of Tinnitus: Comparative Effectiveness (Comparative Effectiveness Review No. 122). Rockville, MD: Agency for Healthcare Research and Quality; 2013.
2. Hall DA, Hibbert A, Smith H, et al. One Size Does Not Fit All: Developing Common Standards for Outcomes in Early-Phase Clinical Trials of Sound-, Psychology-, and Pharmacology-Based Interventions for Chronic Subjective Tinnitus in Adults. Trends Hear. 2019; 23: 2331216518824827. PMID 30803389
3. Jacquemin L, Mertens G, Van de Heyning P, et al. Sensitivity to change and convergent validity of the Tinnitus Functional Index (TFI) and the Tinnitus Questionnaire (TQ): Clinical and research perspectives. Hear Res. Oct 2019; 382: 107796. PMID 31514042
4. Fuller T, Cima R, Langguth B, et al. Cognitive behavioural therapy for tinnitus. Cochrane Database Syst Rev. Jan 08 2020; 1(1): CD012614. PMID 31912887
5. Landry EC, Sandoval XCR, Simeone CN, et al. Systematic Review and Network Meta-analysis of Cognitive and/or Behavioral Therapies (CBT) for Tinnitus. Otol Neurotol. Feb 2020; 41(2): 153-166. PMID 31743297
6. Theodoroff SM, McMillan GP, Schmidt CJ, et al. Randomised controlled trial of interventions for bothersome tinnitus: Desyncra TM versus cognitive behavioural therapy. Int J Audiol. Dec 2022; 61(12): 1035-1044. PMID 34851208
7. Xing M, Kallogjeri D, Piccirillo JF. Investigating the Impact of Cognitive Training for Individuals With Bothersome Tinnitus: A Randomized Controlled Trial. Otolaryngol Head Neck Surg. Dec 2021; 165(6): 854-861. PMID 33650921
8. Sereda M, Xia J, El Refaie A, et al. Sound therapy (using amplification devices and/or sound generators) for tinnitus. Cochrane Database Syst Rev. Dec 27 2018; 12(12): CD013094. PMID 30589445
9. Jalilvand H, Pourbakht A, Haghani H. Hearing aid or tinnitus masker: which one is the best treatment for blast-induced tinnitus? The results of a long-term study on 974 patients. Audiol Neurootol. 2015; 20(3): 195-201. PMID 25924663
10. Davis PB, Wilde RA, Steed LG, et al. Treatment of tinnitus with a customized acoustic neural stimulus: a controlled clinical study. Ear Nose Throat J. Jun 2008; 87(6): 330-9. PMID 18561116
11. Hanley PJ, Davis PB, Paki B, et al. Treatment of tinnitus with a customized, dynamic acoustic neural stimulus: clinical outcomes in general private practice. Ann Otol Rhinol Laryngol. Nov 2008; 117(11): 791-9. PMID 19102123
12. Herraiz C, Diges I, Cobo P, et al. Auditory discrimination training for tinnitus treatment: the effect of different paradigms. Eur Arch Otorhinolaryngol. Jul 2010; 267(7): 1067-74. PMID 20044759
13. Okamoto H, Stracke H, Stoll W, et al. Listening to tailor-made notched music reduces tinnitus loudness and tinnitus-related auditory cortex activity. Proc Natl Acad Sci U S A. Jan 19 2010; 107(3): 1207-10. PMID 20080545

14. Stein A, Wunderlich R, Lau P, et al. Clinical trial on tonal tinnitus with tailor-made notched music training. BMC Neurol. Mar 17 2016; 16: 38. PMID 26987755
15. Therdphaothai J, Atipas S, Suvansit K, et al. A Randomized, Controlled Trial of Notched Music Therapy for Tinnitus Patients. J Int Adv Otol. May 2021; 17(3): 221-227. PMID 34100746
16. Piromchai P, Srisukhumchai C, Kasemsiri P, et al. A Three-arm, Single-blind, Randomized Controlled Trial Examining the Effects of Notched Music Therapy, Conventional Music Therapy, and Counseling on Tinnitus. Otol Neurotol. Feb 01 2021; 42(2): 335-340. PMID 33290360
17. Tong Z, Deng W, Huang X, et al. Efficacy of Tailor-Made Notched Music Training Versus Tinnitus Retraining Therapy in Adults With Chronic Subjective Tinnitus: A Randomized Controlled Clinical Trial. Ear Hear. Jul-Aug 2023; 44(4): 670-681. PMID 36534646
18. Tavanai E, Rahimi V, Bandad M, et al. Efficacy of tailor-made notched music training (TMNMT) in the treatment of tinnitus: a systematic review and meta-analysis. Eur Arch Otorhinolaryngol. Oct 2024; 281(10): 5033-5049. PMID 38847844
19. Li SA, Bao L, Chrostowski M. Investigating the Effects of a Personalized, Spectrally Altered Music-Based Sound Therapy on Treating Tinnitus: A Blinded, Randomized Controlled Trial. Audiol Neurootol. 2016; 21(5): 296-304. PMID 27838685
20. Alashram AR. Effects of tinnitus retraining therapy on patients with tinnitus: a systematic review of randomized controlled trials. Eur Arch Otorhinolaryngol. Aug 17 2024. PMID 39153142
21. Goshtasbi K, Tawk K, Khosravi P, et al. Smartphone-Based Cognitive Behavioral Therapy and Customized Sound Therapy for Tinnitus: A Randomized Controlled Trial. Ann Otol Rhinol Laryngol. Feb 2025; 134(2): 125-133. PMID 39506291
22. Ji D, Zhou X, Fan Y, et al. Refined Sound Therapy in Combination with Cognitive Behavioural Therapy to Treat Tinnitus: A Randomized Controlled Trial. Altern Ther Health Med. Nov 2024; 30(11): 28-33. PMID 38518137
23. Westin VZ, Schulin M, Hesser H, et al. Acceptance and commitment therapy versus tinnitus retraining therapy in the treatment of tinnitus: a randomised controlled trial. Behav Res Ther. Nov 2011; 49(11): 737-47. PMID 21864830
24. Bauer CA, Brozoski TJ. Effect of tinnitus retraining therapy on the loudness and annoyance of tinnitus: a controlled trial. Ear Hear. 2011; 32(2): 145-55. PMID 20890204
25. Henry JA, Schechter MA, Zaugg TL, et al. Clinical trial to compare tinnitus masking and tinnitus retraining therapy. Acta Otolaryngol Suppl. Dec 2006; (556): 64-9. PMID 17114146
26. Phillips JS, McFerran D. Tinnitus Retraining Therapy (TRT) for tinnitus. Cochrane Database Syst Rev. Mar 17 2010; 2010(3): CD007330. PMID 20238353
27. Grewal R, Spielmann PM, Jones SE, et al. Clinical efficacy of tinnitus retraining therapy and cognitive behavioural therapy in the treatment of subjective tinnitus: a systematic review. J Laryngol Otol. Dec 2014; 128(12): 1028-33. PMID 25417546
28. Scherer RW, Formby C. Effect of Tinnitus Retraining Therapy vs Standard of Care on Tinnitus-Related Quality of Life: A Randomized Clinical Trial. JAMA Otolaryngol Head Neck Surg. Jul 01 2019; 145(7): 597-608. PMID 31120533

29. Argstatter H, Grapp M, Hutter E, et al. The effectiveness of neuro-music therapy according to the Heidelberg model compared to a single session of educational counseling as treatment for tinnitus: a controlled trial. J Psychosom Res. Mar 2015; 78(3): 285-92. PMID 25224125
30. Cima RF, Maes IH, Joore MA, et al. Specialised treatment based on cognitive behaviour therapy versus usual care for tinnitus: a randomised controlled trial. Lancet. May 26 2012; 379(9830): 1951-9. PMID 22633033
31. Soleimani R, Jalali MM, Hasandokht T. Therapeutic impact of repetitive transcranial magnetic stimulation (rTMS) on tinnitus: a systematic review and meta-analysis. Eur Arch Otorhinolaryngol. Jul 2016; 273(7): 1663-75. PMID 25968009
32. Langguth B, Landgrebe M, Frank E, et al. Efficacy of different protocols of transcranial magnetic stimulation for the treatment of tinnitus: Pooled analysis of two randomized controlled studies. World J Biol Psychiatry. May 2014; 15(4): 276-85. PMID 22909265
33. Folmer RL, Theodoroff SM, Casiana L, et al. Repetitive Transcranial Magnetic Stimulation Treatment for Chronic Tinnitus: A Randomized Clinical Trial. JAMA Otolaryngol Head Neck Surg. Aug 2015; 141(8): 716-22. PMID 26181507
34. Song JJ, Vanneste S, Van de Heyning P, et al. Transcranial direct current stimulation in tinnitus patients: a systemic review and meta-analysis. ScientificWorldJournal. 2012; 2012: 427941. PMID 23133339
35. Pal N, Maire R, Stephan MA, et al. Transcranial Direct Current Stimulation for the Treatment of Chronic Tinnitus: A Randomized Controlled Study. Brain Stimul. 2015; 8(6): 1101-7. PMID 26198363
36. Wang TC, Tyler RS, Chang TY, et al. Effect of Transcranial Direct Current Stimulation in Patients With Tinnitus: A Meta-Analysis and Systematic Review. Ann Otol Rhinol Laryngol. Feb 2018; 127(2): 79-88. PMID 29192507
37. Abtahi H, Okhovvat A, Heidari S, et al. Effect of transcranial direct current stimulation on short-term and long-term treatment of chronic tinnitus. Am J Otolaryngol. 2018; 39(2): 94-96. PMID 29336898
38. Jacquemin L, Shekhawat GS, Van de Heyning P, et al. Effects of Electrical Stimulation in Tinnitus Patients: Conventional Versus High-Definition tDCS. Neurorehabil Neural Repair. Aug 2018; 32(8): 714-723. PMID 30019630
39. Byun YJ, Lee JA, Nguyen SA, et al. Transcutaneous Electrical Nerve Stimulation for Treatment of Tinnitus: A Systematic Review and Meta-analysis. Otol Neurotol. Aug 2020; 41(7): e767-e775. PMID 32472915
40. Alashram AR. The efficacy of transcranial random noise stimulation in treating tinnitus: a systematic review. Eur Arch Otorhinolaryngol. Dec 2024; 281(12): 6239-6252. PMID 39046497
41. Deklerck AN, Marechal C, Pérez Fernández AM, et al. Invasive Neuromodulation as a Treatment for Tinnitus: A Systematic Review. Neuromodulation. Jun 2020; 23(4): 451-462. PMID 31524324
42. Dobie RA, Hoberg KE, Rees TS. Electrical tinnitus suppression: a double-blind crossover study. Otolaryngol Head Neck Surg. Oct 1986; 95(3 Pt 1): 319-23. PMID 3108780

43. Thedinger BS, Karlsen E, Schack SH. Treatment of tinnitus with electrical stimulation: an evaluation of the Audimax Theraband. Laryngoscope. Jan 1987; 97(1): 33-7. PMID 3491942
44. Mielczarek M, Olszewski J. Direct current stimulation of the ear in tinnitus treatment: a double-blind placebo-controlled study. Eur Arch Otorhinolaryngol. Jun 2014; 271(6): 1815-22. PMID 24337877
45. Ghossaini SN, Spitzer JB, Mackins CC, et al. High-frequency pulsed electromagnetic energy in tinnitus treatment. Laryngoscope. Mar 2004; 114(3): 495-500. PMID 15091224
46. Nakashima T, Ueda H, Misawa H, et al. Transmeatal low-power laser irradiation for tinnitus. Otol Neurotol. May 2002; 23(3): 296-300. PMID 11981384
47. Teggi R, Bellini C, Piccioni LO, et al. Transmeatal low-level laser therapy for chronic tinnitus with cochlear dysfunction. Audiol Neurootol. 2009; 14(2): 115-20. PMID 18843180
48. Ngao CF, Tan TS, Narayanan P, et al. The effectiveness of transmeatal low-power laser stimulation in treating tinnitus. Eur Arch Otorhinolaryngol. May 2014; 271(5): 975-80. PMID 23605244
49. Dehkordi MA, Einolghozati S, Ghasemi SM, et al. Effect of low-level laser therapy in the treatment of cochlear tinnitus: a double-blind, placebo-controlled study. Ear Nose Throat J. Jan 2015; 94(1): 32-6. PMID 25606834
50. Tunkel DE, Bauer CA, Sun GH, et al. Clinical practice guideline: tinnitus. Otolaryngol Head Neck Surg. Oct 2014; 151(2 Suppl): S1-S40. PMID 25273878
60. Centers for Medicare & Medicaid Services. National Coverage Determination (NCD) for Tinnitus Masking - RETIRED (50.6). 2014; https://www.cms.gov/medicare-coverage-database/details/ncd-details.aspx?NCDId=85&ncdver=2&bc=AAAAgAAAAAAAAA%3d%3d&.+

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09/11/2002	Medical Director review
09/18/2002	Managed Care Advisory Council approval
10/05/2004	Medical Director review
11/16/2004	Medical Policy Committee review Format revision. Policy amended to include transmeatal irradiation as investigational.
11/29/2004	Managed Care Advisory Council approval.
07/07/2006	Format revision, including addition of FDA and or other governmental regulatory approval and rationale/source. Coverage eligibility unchanged.
11/01/2006	Medical Director review
11/15/2006	Medical Policy Committee approval. Coverage eligibility updated. Additional techniques in the treatment of tinnitus are also considered investigational: Electromagnetic energy, transcranial magnetic stimulation and Botulinum toxin A.

11/05/2008	Medical Director review
11/18/2008	Medical Policy Committee approval. No change to coverage.
11/12/2009	Medical Policy Committee approval
11/18/2009	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
11/04/2010	Medical Policy Committee review
11/16/2010	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
11/03/2011	Medical Policy Committee review
11/16/2011	Medical Policy Implementation Committee approval. New investigational indications added.
11/01/2012	Medical Policy Committee review
11/28/2012	Medical Policy Implementation Committee approval. No change to coverage.
11/07/2013	Medical Policy Committee review
11/20/2013	Medical Policy Implementation Committee approval. No change to coverage.
11/06/2014	Medical Policy Committee review
11/21/2014	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
08/03/2015	Coding update: ICD10 Diagnosis code section added; ICD9 Procedure code section removed.
10/29/2015	Medical Policy Committee review
11/16/2015	Medical Policy Implementation Committee approval. No change to coverage.
11/03/2016	Medical Policy Committee review
11/16/2016	Medical Policy Implementation Committee approval. Transcranial direct current stimulation added to investigational statement.
01/01/2017	Coding update: Removing ICD-9 Diagnosis Codes
04/06/2017	Medical Policy Committee review
04/19/2017	Medical Policy Implementation Committee approval. Added coverage statement for psychological coping therapy for tinnitus and removed tinnitus retraining therapy, tinnitus coping therapy and botulinum toxin A injections from investigational statement.
04/05/2018	Medical Policy Committee review
04/18/2018	Medical Policy Implementation Committee approval. Biofeedback added to investigational list. Eligible for coverage statement changed to “Based on review of available data, the Company may consider psychological coping therapy including cognitive-behavioral therapy, self-help cognitive-behavioral therapy, tinnitus coping therapy, acceptance and commitment therapy, and psychophysiological treatment, for persistent and bothersome tinnitus, when self-help or internet-based coping therapies were ineffective, to be eligible for coverage.”
04/04/2019	Medical Policy Committee review

Treatment of Tinnitus

Policy # 00127
Original Effective Date: 09/18/2002
Current Effective Date: 05/01/2025

04/24/2019	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
04/02/2020	Medical Policy Committee review
04/08/2020	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
04/01/2021	Medical Policy Committee review
04/14/2021	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
04/07/2022	Medical Policy Committee review
04/13/2022	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
04/06/2023	Medical Policy Committee review
04/12/2023	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
04/04/2024	Medical Policy Committee review
04/10/2024	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.
06/06/2024	Coding update
04/03/2025	Medical Policy Committee review
04/09/2025	Medical Policy Implementation Committee approval. Coverage eligibility unchanged.

Next Scheduled Review Date: 04/2026

Coding

The five character codes included in the Louisiana Blue Medical Policy Coverage Guidelines are obtained from Current Procedural Terminology (CPT®)‡, copyright 2024 by the American Medical Association (AMA). CPT is developed by the AMA as a listing of descriptive terms and five character identifying codes and modifiers for reporting medical services and procedures performed by physician.

The responsibility for the content of Louisiana Blue Medical Policy Coverage Guidelines is with Louisiana Blue and no endorsement by the AMA is intended or should be implied. The AMA disclaims responsibility for any consequences or liability attributable or related to any use, nonuse or interpretation of information contained in Louisiana Blue Medical Policy Coverage Guidelines. Fee schedules, relative value units, conversion factors and/or related components are not assigned by the AMA, are not part of CPT, and the AMA is not recommending their use. The AMA does not directly or indirectly practice medicine or dispense medical services. The AMA assumes no liability for data contained or not contained herein. Any use of CPT outside of Louisiana Blue Medical Policy Coverage Guidelines should refer to the most current Current Procedural Terminology which

Treatment of Tinnitus

Policy # 00127
Original Effective Date: 09/18/2002
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contains the complete and most current listing of CPT codes and descriptive terms. Applicable FARS/DFARS apply.

CPT is a registered trademark of the American Medical Association.

Codes used to identify services associated with this policy may include (but may not be limited to) the following:

Code Type	Code
CPT	97014, 97026, 97032
HCPCS	C1816, C1883, E0720, E0761 Delete code effective 07/01/2024: S8948
ICD-10 Diagnosis	H93.11-H93.19, H93.A1-H93.A9

*Investigational – A medical treatment, procedure, drug, device, or biological product is Investigational if the effectiveness has not been clearly tested and it has not been incorporated into standard medical practice. Any determination we make that a medical treatment, procedure, drug, device, or biological product is Investigational will be based on a consideration of the following:

A. Whether the medical treatment, procedure, drug, device, or biological product can be lawfully marketed without approval of the U.S. Food and Drug Administration (FDA) and whether such approval has been granted at the time the medical treatment, procedure, drug, device, or biological product is sought to be furnished; or
B. Whether the medical treatment, procedure, drug, device, or biological product requires further studies or clinical trials to determine its maximum tolerated dose, toxicity, safety, effectiveness, or effectiveness as compared with the standard means of treatment or diagnosis, must improve health outcomes, according to the consensus of opinion among experts as shown by reliable evidence, including:
    1. Consultation with technology evaluation center(s);
    2. Credible scientific evidence published in peer-reviewed medical literature generally recognized by the relevant medical community; or
    3. Reference to federal regulations.

**Medically Necessary (or "Medical Necessity") - Health care services, treatment, procedures, equipment, drugs, devices, items or supplies that a Provider, exercising prudent clinical judgment, would provide to a patient for the purpose of preventing, evaluating, diagnosing or treating an illness, injury, disease or its symptoms, and that are:

A. In accordance with nationally accepted standards of medical practice;
B. Clinically appropriate, in terms of type, frequency, extent, level of care, site and duration, and considered effective for the patient's illness, injury or disease; and
C. Not primarily for the personal comfort or convenience of the patient, physician or other health care provider, and not more costly than an alternative service or sequence of services

at least as likely to produce equivalent therapeutic or diagnostic results as to the diagnosis or treatment of that patient's illness, injury or disease.

For these purposes, "nationally accepted standards of medical practice" means standards that are based on credible scientific evidence published in peer-reviewed medical literature generally recognized by the relevant medical community, Physician Specialty Society recommendations and the views of Physicians practicing in relevant clinical areas and any other relevant factors.

‡ Indicated trademarks are the registered trademarks of their respective owners.

NOTICE: If the Patient's health insurance contract contains language that differs from the BCBSLA Medical Policy definition noted above, the definition in the health insurance contract will be relied upon for specific coverage determinations.

NOTICE: Medical Policies are scientific based opinions, provided solely for coverage and informational purposes. Medical Policies should not be construed to suggest that the Company recommends, advocates, requires, encourages, or discourages any particular treatment, procedure, or service, or any particular course of treatment, procedure, or service.

NOTICE: Federal and State law, as well as contract language, including definitions and specific contract provisions/exclusions, take precedence over Medical Policy and must be considered first in determining eligibility for coverage.