



Geisinger Health Plan Policies and Procedure Manual

Policy: MP254

Section: Medical Benefit Policy

Subject: Tinnitus Treatment

Applicable line of business:

Commercial	x	Medicaid	x
Medicare	x	ACA	x
CHIP	x		

I. Policy: Tinnitus Treatment

II. Purpose/Objective:

To provide a policy of coverage regarding tinnitus treatment

III. Responsibility:

- A. Medical Directors
- B. Medical Management

IV. Required Definitions

1. Attachment – a supporting document that is developed and maintained by the policy writer or department requiring/authoring the policy.
2. Exhibit – a supporting document developed and maintained in a department other than the department requiring/authoring the policy.
3. Devised – the date the policy was implemented.
4. Revised – the date of every revision to the policy, including typographical and grammatical changes.
5. Reviewed – the date documenting the annual review if the policy has no revisions necessary.

Commercial

Geisinger Health Plan may refer collectively to health care coverage sponsors Geisinger Health Plan, Geisinger Quality Options, Inc., and Geisinger Indemnity Insurance Company, unless otherwise noted. Geisinger Health Plan is part of Geisinger, an integrated health care delivery and coverage organization.

Medicare

Geisinger Gold Medicare Advantage HMO, PPO, and HMO D-SNP plans are offered by Geisinger Health Plan/Geisinger Indemnity Insurance Company, health plans with a Medicare contract. Continued enrollment in Geisinger Gold depends on contract renewal. Geisinger Health Plan/Geisinger Indemnity Insurance Company are part of Geisinger, an integrated health care delivery and coverage organization.

CHIP

Geisinger Health Plan Kids (GHP Kids) is a Children’s Health Insurance Program (CHIP) offered by Geisinger Health Plan in conjunction with the Pennsylvania Department of Human Services (DHS). Geisinger Health Plan is part of Geisinger, an integrated health care delivery and coverage organization.

Medicaid

Geisinger Health Plan Family (GHP Family) is a Medical Assistance (Medicaid) insurance program offered by Geisinger Health Plan in conjunction with the Pennsylvania Department of Human Services (DHS). Geisinger Health Plan is part of Geisinger, an integrated health care delivery and coverage organization

V. Additional Definitions

Medical Necessity or Medically Necessary means Covered Services rendered by a Health Care Provider that the Plan determines are:

- a. appropriate for the symptoms and diagnosis or treatment of the Member's condition, illness, disease or injury;
- b. provided for the diagnosis, and the direct care and treatment of the Member's condition, illness disease or injury;
- c. in accordance with current standards of good medical treatment practiced by the general medical community.
- d. not primarily for the convenience of the Member, or the Member's Health Care Provider; and
- e. the most appropriate source or level of service that can safely be provided to the Member. When applied to hospitalization, this further means that the Member requires acute care as an inpatient due to the nature of the services rendered or the Member's condition, and the Member cannot receive safe or adequate care as an outpatient.

Medicaid Business Segment

Medically Necessary — A service, item, procedure, or level of care — that is necessary for the proper treatment or management of an illness, injury, or disability is one that:

- Will, or is reasonably expected to, prevent the onset of an illness, condition, injury or disability.
- Will, or is reasonably expected to, reduce or ameliorate the physical, mental or developmental effects of an illness, condition, injury or disability.
- Will assist the Member to achieve or maintain maximum functional capacity in performing daily activities, taking into account both the functional capacity of the Member and those functional capacities that are appropriate for Members of the same age.

DESCRIPTION:

Tinnitus is the perception of sound in the ear, commonly described as “head noise”, in the absence of external stimulus. Tinnitus is a malfunction of auditory signal processing, and often results from a hearing impairment (either noise-induced or age related). Tinnitus is classified as either subjective or objective. Subjective tinnitus is audible only to the patient. It may be caused by otological disturbances, neurological, pharmacological, metabolic, infectious, neoplastic or psychological disorders. Objective tinnitus can be heard by an observer by placing a stethoscope over the patient's external ear, and can be the result of vascular (eg, bruits or aneurysms) or mechanical (Eutaschian tube dysfunction, temporomandibular joint disease, palatal myoclonus,) disorders. A variety of non-pharmacological treatments are being evaluated to treat the subjective symptoms of tinnitus including use of tinnitus maskers, acupuncture, electrical stimulation, transmeatal laser irradiation, electromagnetic energy, tinnitus-retraining therapy, transcranial magnetic stimulation, transcutaneous electrical stimulation, sound therapy, and hyperbaric oxygen therapy.

This policy does not address behavioral health interventions such as cognitive-behavioral therapy, self-help cognitive-behavioral therapy, tinnitus coping therapy, acceptance and commitment therapy, and psychophysiological treatment of persistent and bothersome tinnitus. Requests for those services are managed by the Behavioral Health department.

This policy does not address pharmacologic agents proposed for the treatment of persistent and bothersome tinnitus such as botulinum toxin, lidocaine, mexiletine, melatonin, oxytocin, and Vit B12. Requests for those agents are managed by the Pharmacy department.

EXCLUSIONS:

There is a lack of published clinical outcomes data to support the use of tinnitus maskers, acupuncture, electrical stimulation, transmeatal laser irradiation, electromagnetic energy, tinnitus-retraining therapy, transcranial magnetic stimulation, transcutaneous electrical stimulation, sound therapy, hyperbaric oxygen therapy, vagus nerve stimulation, or botulinum toxin A injections to treat tinnitus. These therapies are considered **unproven** and are **NOT COVERED**.

Medicaid Business Segment:

Any requests for services, that do not meet criteria set in the PARP, may be evaluated on a case by case basis.

Note: A complete description of the process by which a given technology or service is evaluated and determined to be experimental, investigational or unproven is outlined in MP 15 - Experimental Investigational or Unproven Services or Treatment.

LINE OF BUSINESS:

Eligibility and contract specific benefits, limitations and/or exclusions will apply. Coverage statements found in the line of business specific benefit document will supersede this policy. For Medicare, applicable LCD's and NCD's will supercede this policy. For PA Medicaid Business segment, this policy applies as written.

REFERENCES:

Centers for Medicare and Medicaid Services (CMS). National Coverage Determination. 100-3, Tinnitus Masking 50.6.

ECRI Institutes. HTAIS Hotline. Tinnitus Retraining Therapy. 3/26/10

Seidman MD, Jacobson GP. Update on tinnitus. *Otolaryngol Clin North Am.* 1996;29(3):455-465

Hobson J, Chisholm EJ, Loveland ME. Sound therapy (masking) in the management of tinnitus in adults (Protocol for Cochrane Review). *Cochrane Database Syst Rev.* 2007;(1):CD006371

Savage J, Cook S, Waddell A. Tinnitus. In: *BMJ Clinical Evidence.* London, UK: BMJ Publishing Group; May 2009.

Dobie RA, Hoberg KE, Rees TS. Electrical tinnitus suppression: A double-blind crossover study. *Otolaryngol Head Neck Surg.* 1986;95:319–333.

Phillips JS, McFerran D. Tinnitus Retraining Therapy (TRT) for tinnitus. *Cochrane Database Syst Rev.* 2010;(3):CD007330

Wang G. Tinnitus retraining therapy. *Health Technology Assessment.* Olympia, WA: Washington State Department of Labor and Industries, Office of the Medical Director; June 7, 2004

Khedr EM, Rothwell JC, Ahmed MA, El-Atar A. Effect of daily repetitive transcranial magnetic stimulation for treatment of tinnitus: Comparison of different stimulus frequencies. *J Neurol Neurosurg Psychiatry.* 2008;79(2):212-215.

Sweetow R, Baguley D, Hall, J III, et al. Audiologic guidelines for the diagnosis & management of tinnitus patients. Reston, VA: American Academy of Audiology; October 18, 2000.
<http://www.audiology.org/resources/documentlibrary/Pages/TinnitusGuidelines.aspx>.

Gungor A, Dogru S, Cincik H, et al. Effectiveness of transmeatal low power laser irradiation for chronic tinnitus. *J Laryngol Otol.* 2008;122(5):447-451.

Bennett MH, Kertesz T, Yeung P. Hyperbaric oxygen for idiopathic sudden sensorineural hearing loss and tinnitus. *Cochrane Database Syst Rev.* 2007;(1):CD004739.

Rossi S, De Capua A, Ulivelli M, Bartalini S, Falzarano V, Filippone G, et al. Effects of repetitive transcranial magnetic stimulation on chronic tinnitus: a randomised, crossover, double blind, placebo controlled study. *J Neurol Neurosurg Psychiatry.* 2007 Aug;78(8):857-63.

Martinez-Devesa P, Perera R, Theodoulou M, Waddell A. Cognitive behavioural therapy for tinnitus. *Cochrane Database Syst Rev.* 2010 Sep 8;9:CD005233. Update of: *Cochrane Database Syst Rev.*

Lockwood AH, Salvi RJ, Burkhard RF. Tinnitus. *New Engl J Med.* 2002 Sep 19;347(12):904-10.

American Academy of Audiology (AAA). Audiologic Guidelines for the Diagnosis & Management of Tinnitus Patients. Revised October 18, 2000. 2010 American Academy of Audiology.
<http://www.audiology.org/resources/documentlibrary/Pages/TinnitusGuidelines.aspx>

Juul J et al. Tinnitus and hearing in 7-year-old children. *Arch Dis Child* 2012 Jan; 97:28.

Lee HJ, Kim MB, Yoo SY, et al. Clinical effect of intratympanic dexamethasone injection in acute unilateral tinnitus: A prospective, placebo-controlled, multicenter study. *Laryngoscope.* 2018;128(1):184-188.

Vielsmeier V, Schecklmann M, Schlee W, et al. A pilot study of peripheral muscle magnetic stimulation as add-on treatment to repetitive transcranial magnetic stimulation in chronic tinnitus. *Front Neurosci.* 2018;12:68.

Montazeri K, Mahmoudian S, Razaghi Z, Farhadi M. Alterations in auditory electrophysiological responses associated with temporary suppression of tinnitus induced by low-level laser therapy: A before-after case series. *J Lasers Med Sci*. 2017;8(Suppl 1):S38-S45.

Zenner HP, Delb W, Kröner-Herwig B, et al. A multidisciplinary systematic review of the treatment for chronic idiopathic tinnitus. *Eur Arch Otorhinolaryngol*. 2017;274(5):2079-2091.

Nash B, Carlson ML, Van Gompel JJ. Microvascular decompression for tinnitus: Systematic review. *J Neurosurg*. 2017;126(4):1148-1157.

Haller M, Hall DA. Evaluation of the acoustic Coordinated Reset (CR®) Neuromodulation therapy for tinnitus: Update on findings and conclusions. *Front Psychol*. 2017;8:1893

Liang Z, Yang H, Cheng G, et al. Repetitive transcranial magnetic stimulation on chronic tinnitus: A systematic review and meta-analysis. *BMC Psychiatry*. 2020;20(1):547.

Deklerck AN, Marechal C, Perez Fernandez AM, et al. Invasive neuromodulation as a treatment for tinnitus: A systematic review. *Neuromodulation*. 2020;23(4):451-462.

Schoisswohl S, Langguth B, Schecklmann M. Short-term tinnitus suppression with electric-field guided rTMS for individualizing rTMS treatment: A technical feasibility report. *Front Neurol*. 2020;11:86.

Stegeman I, Velde HM, Robe PAJT, et al. Tinnitus treatment by vagus nerve stimulation: A systematic review. *PLoS One*. 2021;16(3):e0247221.

Ferreira MC, de Matos IL, de Toledo IP, et al. Effects of low-level laser therapy as a therapeutic strategy for patients with tinnitus: A systematic review. *J Speech Lang Hear Res*. 2021;64(1):279-298

Martins ML, da Silva Souza D, de Oliveira Barbosa Cavalcante ME, et al. Effect of transcranial direct current stimulation for tinnitus treatment: A systematic review and meta-analysis. *Neurophysiol Clin*. 2022;52(1):1-16

De Faria Gc NC, Gualberto Vc V, Bruzadelli SM, Bahmad F Jr. Efficacy of ozone therapy in the treatment of tinnitus: A systematic review. *Int Tinnitus J*. 2022;25(2):149-153

Barrenechea FV. Efficacy of neurofeedback as a treatment for people with subjective tinnitus in reducing the symptom and related consequences: A systematic review from 2010 to 2020. *Acta Otorrinolaringol Esp (Engl Ed)*. 2023;74(4):253-262

Demoen S, Chalimourdas A, Timmermans A, et al. Effectiveness of telerehabilitation interventions for self-management of tinnitus: Systematic review. *J Med Internet Res*. 2023;25:e39076

Bulow M, Best N, Brugger S, et al. The effect of lidocaine iontophoresis for the treatment of tinnitus: A systematic review. *Eur Arch Otorhinolaryngol*. 2023;280(2):495-503.

This policy will be revised as necessary and reviewed no less than annually

Devised: 02/2011

Revised: 1/22 (add VNS exclusion); 1/25 (address behavioral and pharmacologic treatments)

Reviewed: 2/12, 2/13, 2/14, 2/15, 2/16, 2/17, 1/18, 1/19, 1/20, 1/21, 1/23, 1/24

CMS UM Oversight Committee Approval: 12/23, 5/24, 2/25

Geisinger Health Plan may refer collectively to health care coverage sponsors Geisinger Health Plan, Geisinger Quality Options, Inc., and Geisinger Indemnity Insurance Company, unless otherwise noted. Geisinger Health Plan is part of Geisinger, an integrated health care delivery and coverage organization.

Coverage for experimental or investigational treatments, services and procedures is specifically excluded under the member's certificate with Geisinger Health Plan. Unproven services outside of an approved clinical trial are also specifically excluded under the member's certificate with Geisinger Health

Plan. This policy does not expand coverage to services or items specifically excluded from coverage in the member's certificate with Geisinger Health Plan. Additional information can be found in MP015 Experimental, Investigational or Unproven Services.

Prior authorization and/or pre-certification requirements for services or items may apply. Pre-certification lists may be found in the member's contract specific benefit document. Prior authorization requirements can be found at <https://www.geisinger.org/health-plan/providers/ghp-clinical-policies>

Please be advised that the use of the logos, service marks or names of Geisinger Health Plan, Geisinger Quality Options, Inc. and Geisinger Indemnity Insurance Company on a marketing, press releases or any communication piece regarding the contents of this medical policy is strictly prohibited without the prior written consent of Geisinger Health Plan. Additionally, the above medical policy does not confer any endorsement by Geisinger Health Plan, Geisinger Quality Options, Inc. and Geisinger Indemnity Insurance Company regarding the medical service, medical device or medical lab test described under this medical policy.