

Balloon Dilation of Eustachian Tube

Date of Origin: 1/2021

Last Review Date: 1/24/2024

Effective Date: 2/1/2024

Dates Reviewed: 1/27/2021, 1/2022, 1/2023, 1/2024

Developed By: Medical Necessity Criteria Committee

I. Description

Eustachian tube dysfunction (ETD) is a common medical condition affecting approximately 1% of the adult population. Both children and adults are affected and may manifest as muffled hearing, aural fullness, pain, ear popping, tinnitus, or problems with balance. Long-term dysfunction can potentially lead to serious consequences such as hearing loss, cholesteatoma, and chronic suppurative otitis media. Patients suffering from ET dysfunction typically present with complaints of hearing loss or sensation of pressure or plugged ear, which can lead to impaired quality of life. The eustachian tube (ET) is a complex osseocartilaginous connection between the middle ear and the nasopharynx. The ET protects the middle ear from disease sources, ventilates the middle ear, and helps drain secretions away from the middle ear. ETD is the inability of the ET to maintain adequate performance of these functions.

Balloon dilation of the eustachian tube is a minimally invasive method for treating chronic obstructive eustachian tube dysfunction. The minimally invasive intervention aims to increase the patency of the cartilaginous part of the eustachian tube and reduce inflammation. The technique involves inserting a small tube containing a balloon into the nose and threading it into the eustachian tube. The tiny balloon is then inflated, which opens the tube. The balloon is left in place for a couple of minutes, deflated, and removed.

II. Criteria: CWQI HCS-0306

- A. OHSU Health Services considers balloon dilation of eustachian tube for treatment of chronic obstructive eustachian tube dysfunction in adults 18 and older medically necessary when **ALL** of the following requirements are met;
- a. Patient has had symptoms of the obstructive eustachian tube dysfunction and/ or hearing loss for three months or longer in one or both ears that significantly affects the quality of life or impairs function and meets **ALL** of the following;
 - i. Presence of aural fullness and pressure
 - ii. Patient is **NOT** diagnosed with patulous ET (Eustachian tube stays open)
 - iii. Other causes of aural fullness such as temporomandibular joint disorder, extrinsic obstruction of the eustachian tube, superior semicircular canal dehiscence, endolymphatic hydrops etc have been ruled out

- iv. Patient symptoms are continuous rather than episodic (e.g. symptoms occur only in response to barochallenge such as pressure changes while flying)
 - v. Patient has not previously had balloon dilation of eustachian tube procedure (BDET)
- b. Documentation of completed comprehensive diagnostic assessment with **ALL** of the following findings;
 - i. Abnormal tympanogram (Type B or C)
 - ii. Abnormal tympanic membrane (retracted membrane, effusion, perforation, or any other abnormality identified following otoscopy exam)
 - c. If applicable, failure to respond to medical management of co-occurring conditions which **include but not limited to;**
 - i. allergic rhinitis, rhinosinusitis, including 4-6 weeks of a nasal steroid if indicated
 - ii. laryngopharyngeal reflux; with proton pump inhibitor or antacid treatment
 - d. Reversibility of patient's eustachian tube dysfunction has been demonstrated
- B. Balloon dilation of the eustachian tube is considered **NOT** medically necessary for all other indications
- C. Balloon dilation of the eustachian tube is considered **investigational** for repeat BDET and all other indications
- D. Contraindications to balloon dilation of eustachian tubes
- a. Patients with extrinsic reversible or irreversible causes of eustachian tube dysfunction including **but not limited to;**
 - i. Enlarged adenoid pads
 - ii. History of radiation therapy to the nasopharynx
 - iii. Craniofacial syndromes, including cleft palate spectrum
 - iv. Nasopharyngeal mass or skull base neoplasm
 - v. Neoplasms causing extrinsic obstruction of the eustachian tube
 - b. Patient with patulous eustachian tube dysfunction
 - c. Patient with aural fullness but normal exam and tympanogram
 - d. Patient with chronic and severe atelectatic ears (retracted tympanic membrane)

III. Information Submitted with the Request:

1. Chart notes with history documentation of a diagnosis and treatment of chronic eustachian tube dysfunction
2. Documentation of tympanic membrane abnormality and/or Tympanogram is abnormal

IV. CPT or HCPC codes covered:

Codes	Description
69705	Nasopharyngoscopy, surgical, with dilation of eustachian tube (i.e., balloon dilation); unilateral
69706	Nasopharyngoscopy, surgical, with dilation of eustachian tube (i.e., balloon dilation); bilateral
69799	Unlisted procedure, middle ear
C9745	Nasal endoscopy, surgical; balloon dilation of eustachian tube

V. Annual Review History

Review Date	Revisions	Effective Date
1/27/2021	New criteria	4/15/2021
3/2021	Following further review, updated the requirement for patients experiencing obstructive eustachian tube dysfunction (OETD) in one or both ears for 3 months or longer	
4/2021	CPT code C9745 added to criteria	
1/2022	Annual Review: No changes	2/2022
1/2023	Annual Review: No changes	2/2023
1/2024	Annual Review: added skull base neoplasm as a contraindication to treatment	2/2024

VI. References

1. Bance, Manohar (2016). Balloon dilation of the eustachian tube: A tympanometric outcomes analysis. *Journal of otolaryngology*. Retrieved from https://www.researchgate.net/publication/294261140_Balloon_dilation_of_the_eustachian_tube_A_tympanometric_outcomes_analysis
2. Poe, DS, Gopen, Q. Eustachian Tube Dysfunction. In: Ballenger's Textbook of Otolaryngology, Wackym, PA (Eds), BC Decker, Toronto 2008. Retrieved from https://www.uptodate.com/contents/eustachian-tube-dysfunction?search=balloon%20dilation%20of%20eustachian%20tube&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1
3. M. Tisch, H. Maier, H. Sudhoff (2017). Balloon dilation of the eustachian tube; clinical experience in the management of 126 children. *ACTA Otorhinolaryngologica Italica*. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5782429/>
4. Taufique Zahrah et al (2020). Patient Reported Outcomes of Balloon Dilation for Eustachian Tube Dysfunction Using the SNOT-22 Survey. *Journal of Otolaryngology and Rhinology*. Retrieved from <https://www.clinmedjournals.org/articles/jor/journal-of-otolaryngology-and-rhinology-jor-6-071.php?jid=jor>
5. Tucci et al. (2019). Clinical Consensus Statement: Balloon Dilation of Eustachian Tube. *Otolaryngology-Head and Neck Surgery*. 2019, vol 161 (1) 6-176.
6. Dennis P. et al (2017). Balloon dilation of the eustachian tube for dilatatory dysfunction: A randomized controlled trial. *Laryngoscope*. 128: 1200-1206.
7. Schilder et al. (2015). Eustachian tube dysfunction: consensus statement on definition, types, clinical presentation and diagnosis. *Clin Otolaryngol*. 2015 Oct. 40(5): 407-411

Appendix 1- Applicable Diagnosis Codes:

Codes	Description

Appendix 2 – Centers for Medicare and Medicaid Services (CMS)

Medicare coverage for outpatient (Part B) drugs is outlined in the Medicare Benefit Policy Manual (Pub. 100-2), Chapter 15, §50 Drugs and Biologicals. In addition, National Coverage Determination (NCD) and Local Coverage Determinations (LCDs) may exist and compliance with these policies is required where applicable. They can be found at: <http://www.cms.gov/medicare-coverage-database/search/advanced-search.aspx>. Additional indications may be covered at the discretion of the health plan.

Medicare Part B Covered Diagnosis Codes (applicable to existing NCD/LCD):

Jurisdiction(s): 5, 8	NCD/LCD Document (s):

NCD/LCD Document (s):

Medicare Part B Administrative Contractor (MAC) Jurisdictions		
Jurisdiction	Applicable State/US Territory	Contractor
F (2 & 3)	AK, WA, OR, ID, ND, SD, MT, WY, UT, AZ	Noridian Healthcare Solutions, LLC