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Kaiser Foundation Health Plan of Washington

Clinical Review Criteria
Balloon Dilation of the Eustachian Tube

Criteria

For Medicare Members

Source	Policy
CMS Coverage Manuals	None
National Coverage Determinations (NCD)	None
Local Coverage Determinations (LCD)	None
Local Coverage Article (LCA)	None
Kaiser Permanente Medical Policy	Due to the absence of an active NCD, LCD, or other coverage guidance, Kaiser Permanente has chosen to use their own Clinical Review Criteria, ***Balloon Dilation of the Eustachian Tube*** for medical necessity determinations. Refer to the Non-Medicare criteria below.

For Non-Medicare Members

Eustachian Tube Dilation

Unilateral or bilateral Eustachian tube balloon dilation (ETBD) is considered medically necessary once per lifetime for the treatment of chronic obstructive Eustachian tube dysfunction when **ALL** of the following criteria are met:

- Age 18 years or older
- Patient has had any of the following symptoms continuously for at least 12 months:
  - aural fullness
  - aural pressure
  - otalgia
  - hearing loss
  - autophony
- History of chronic ear disease or intolerance to barometric changes greater than 12 months
- The patient does not have any other causes of aural fullness such as:
  - Temporomandibular joint disorders
  - Extrinsic obstruction of the eustachian tube
  - Superior semicircular canal dehiscence
  - Endolymphatic hydrops
- Prior evaluation of the eustachian tube with nasal endoscopy
- Abnormal result of **BOTH** of the following prior to ETBD:
  - Tympanogram (Type B or C)
  - Tympanic membrane (i.e., retracted membrane, effusion, perforation) on exam
- If applicable, failure to respond to appropriate medical management of potential co-occurring conditions, such as:
  - Allergic rhinitis, rhinosinusitis - 4-6 weeks of a nasal steroid spray, if indicated

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    - Laryngopharyngeal reflux - Proton pump inhibitor or antacid treatment
- If patient has a history of tympanostomy tube placement, symptoms of Eustachian tube obstruction improved while tubes were patent, or the patient underwent myringotomy without tube placement with symptom relief

Eustachian tube balloon dilation (ETBD) is considered experimental, investigational or unproven for all other indications.

For covered criteria:

If requesting this service (*or these services*), please send the following documentation to support medical necessity:

- Last 6 months of clinical notes from requesting provider &/or specialist

The following information was used in the development of this document and is provided as background only. It is provided for historical purposes and does not necessarily reflect the most current published literature. When significant new articles are published that impact treatment option, Kaiser Permanente will review as needed. This information is not to be used as coverage criteria. Please only refer to the criteria listed above for coverage determinations.

Background

Eustachian Tube Role, ETD, & Prevalence, & Risk factors: (Anand et al., 2019; Fischer et al., 2020; Juszczak, Aubin-Pouliot, Sharon, & Loftus, 2019; Magro et al., 2021; Shan et al., 2019)
The eustachian tube (ET) is a ciliated epithelial-lined tube that covers the anterior wall of the middle ear and the nasopharynx. The ET has several roles including maintenance of middle ear physiology and function, pressure equalization across the tympanic membrane, clearance of secretions from the middle ear, and protection from pathogens and secretions from the oropharynx. An alteration of the opening or closing of the ET leads to ET dysfunction (ETD).
Categories of ETD vary from obstructive dysfunction to patulous dysfunction. Obstructive dysfunction is an insufficient opening of the ET. Patulous dysfunction is characterized by a patent valve (resulting in equalization of pressure between the middle ear and the nasopharynx).
The prevalence of ETD is estimated at 4.6% among adults in the United States and over 5% in the elderly population. Sinonasal risk factors include self-reported allergic rhinitis and persistent cold/flu.

Presentation & Treatment of ETD: (Swain, Janardan, & Mohanty, 2020)
Signs and symptoms of Eustachian tube dysfunctions consist of fullness of the ear, hearing difficulty, ear pain, tinnitus and vertigo. The medical treatments of ET dysfunction consist of antihistamines, nasal decongestants and oral or nasal steroids. If ETD is recalcitrant, Eustachian tuboplasty may be done. Balloon dilation of the Eustachian tube is a new surgical technique that has garnered interest.

Rationale
Existing treatments are not efficacious.

Description of the procedure (Magro et al., 2021; Meyer et al., 2018; Swain et al., 2020)
Balloon dilation of the ET (BDET) is a minimally invasive endoscopic procedure for ETD resistant to conservative treatment, in which a balloon is inflated into the Eustachian tube (ET). The procedure is generally performed under general anesthesia. Nevertheless, it can be done in office setting under local anesthesia. It can be unilateral or bilateral.
A balloon catheter is inserted, through the nose, into the ET under nasal endoscopy. The balloon is then inflated by filling in it up with saline to a pressure of 10 to 12 bars. The pressure is maintained for 2 minutes. Once the ET is dilated, the balloon is deflated and removed. The goal of the procedure is to dilate the cartilaginous portion of the ET without causing damage.

Medical Technology Assessment Committee (MTAC)

Balloon Dilation of the Eustachian Tube
Date: 10/11/2021
Evidence Conclusion:

- Low-quality evidence suggests that eustachian tube balloon dilation is more effective than medical treatment, on the short and long-term, in adult patients with eustachian tube dilation refractory to medical management.

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The procedure may be safe as no serious device-related complications are reported. However, more RCTs with longer follow-up are still needed.
- The evidence is insufficient to compare ETBD and tympanoplasty in patients with otitis media and severe ETD.

Articles: See Evidence Table

The use of Balloon Dilation of the Eustachian Tube does meet the *Kaiser Permanente Medical Technology Assessment Criteria.*

Applicable Codes

Considered Medically Necessary when criteria in the applicable policy statements listed above are met

CPT® or HCPCS Codes	Description
69705	Nasopharyngoscopy, surgical, with dilation of eustachian tube (ie, balloon dilation); unilateral
69706	Nasopharyngoscopy, surgical, with dilation of eustachian tube (ie, balloon dilation); bilateral

***Note:** Codes may not be all-inclusive. Deleted codes and codes not in effect at the time of service may not be covered.

****To verify authorization requirements for a specific code by plan type, please use the **Pre-authorization Code Check**.

Date Created	Date Reviewed	Date Last Revised
01/27/2022	02/01/2022[MPC], 02/07/2023[MPC], 07/02/2024[MPC]	07/02/2024

[MPC] Medical Policy Committee

Revision History	Description
02/01/2022	MPC approved to adopt MTAC's recommendation of coverage and the clinical review criteria for this medical procedure. Requires 60-day notice, effective date 07/01/2022.
07/02/2024	MPC approved Eustachian Tube Balloon Dilation into the Care Delivery Medical Necessity Review program.

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