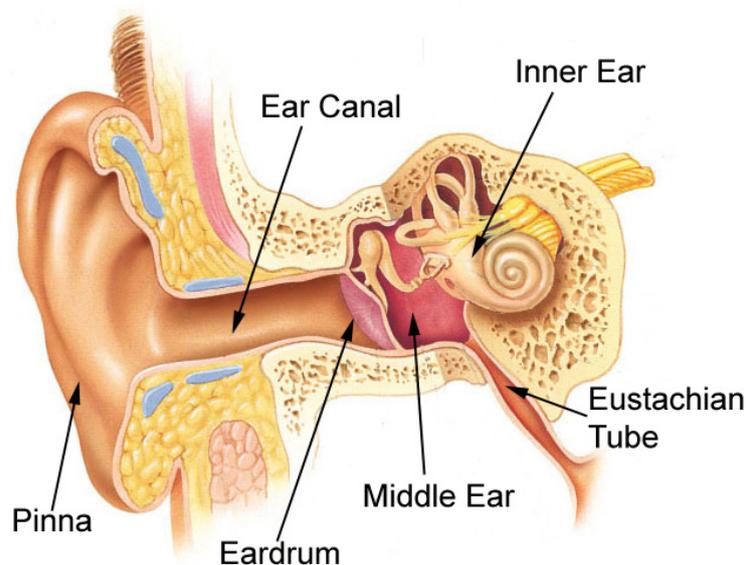




Patient Information on Eustachian Tube Dysfunction (ETD)

What is the Eustachian Tube?

- It connects the middle ear with the back of the throat.
- The space behind the eardrum is normally filled with air. That air is constantly being absorbed by the ear, so a fresh supply of air is needed in the middle ear. The Eustachian tube normally opens upon swallowing, yawning or chewing, allowing air in and fluid out, keeping air pressure equal on both sides of the eardrum.
- Equal pressure on the eardrum and a fluid-free ear enable the eardrum to vibrate normally, which is needed for normal hearing.



What is Eustachian Tube Dysfunction?

- Eustachian tube dysfunction (ETD) means the tube does not open properly.
- The air pressure on the outer side of the eardrum becomes greater than the air pressure in the middle ear.
- The eardrum is pushed inward, becomes tense, and does not vibrate well.
- A healthy ear is one that “pops” easily and feels immediately better.

What are the symptoms of Eustachian tube dysfunction?

- The main symptom is muffled or dulled hearing in one or both ears. There may be pain because the eardrum is stretched. This may be felt into the back of the throat or neck along the course of the tube.
- Other symptoms may include fullness in the ear, ringing, buzzing, popping, crackling or dizziness.
- Symptoms can last from a few hours to several months. As symptoms ease, popping sensations or noises in the ear may occur.



- The dulled hearing may come and go before getting back to normal.

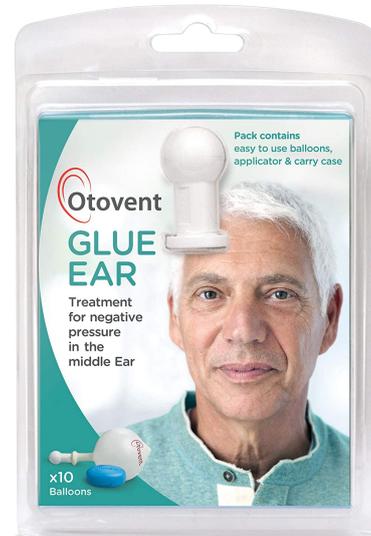
What are the causes of Eustachian tube dysfunction?

- As a plane or car descends, changes in air pressure push the eardrum inward. Swallowing, yawning and chewing usually open the Eustachian tube to equalize the pressure. The most common cause is being born with too short or narrow eustachian tube, small children can grow out of this with time, but in the meantime, if left untreated ETD can result in hearing loss or permanent damage for some patients. In adults, sometimes inflammation of the eustachian tube, or a mass pressing on it, may result in dysfunction.

What Can Be Done for ETD?

- 1. Force air to flow into the Eustachian tube. Do the following every hour, or every 10 seconds if descending: Breathe out forcefully with your mouth closed and nose pinched. The increased pressure in your nose may push air into the Eustachian tube. If successful, a 'pop' is felt in the ears. This may need to be repeated regularly, possibly for weeks, until the underlying problem resolves.
- 2. Using an Otovent Nasal Balloon
 - These can be purchased online or through some chemists. They help air be forced up the eustachian tube into the ear. Follow the instructions that come with the balloon, they also have links to youtube videos which demonstrate its use.
- 3. Steroid nasal sprays (such as nasonex or rhinocort): These may be a good option for people with chronic Eustachian tube problems. These work by reducing inflammation in the nose which may make the Eustachian tubes work better. It takes several days for a steroid spray to build up to its full effect, so you will not have an immediate relief of symptoms. These are safe to use long term.
- 4. Decongestant tablets and nasal sprays (e.g. Sudafed and Drixine). Over-the-counter sprays can be helpful, but should only be used for 5 days at a time as longer use may cause worse 'rebound' congestion.
- 5. Antihistamines (e.g. Zyrtec, Benadryl) These reduce the effects of allergy.

Remember that a combination of the above may need to be continued for weeks before relief occurs, especially as allergy is commonly an underlying cause.



What other treatments are available?

1. **Surgery** – If medical treatment fails or symptoms recur, surgery of the eustachian tube may be indicated:
 - Placement of a pressure equalization tube (a grommet) in the eardrum (myringotomy and middle ear ventilation tube placement).
 - Balloon eustachian tuboplasty: a new minimally invasive treatment option for eustachian tube dysfunction which consist of dilating the eustachian tube with a pressure filled balloon, this likely has a temporary resolution for many patients.

Concerns or questions?

You can contact Dr Fiona Hill through the links on her website:

- Website: drfionahill.com.au

Your GP is also the best contact for ongoing care and concerns.