



Faculty of Medicine, Dentistry & Health Sciences

Melbourne Audiology & Speech Pathology Clinic



Eustachian Tube Dysfunction

WHAT IS THE EUSTACHIAN TUBE?

The Eustachian tube is an airway passage which connects the middle ear to the back of the nose/throat. The opening and closing of the Eustachian tube is usually controlled by a number of small muscles at the back of the throat.

The main role of the Eustachian tube is to balance the air pressure in the middle ear with the air pressure in the outside environment. It is also important for drainage of secretions from the middle ear. Normally, the Eustachian tube is closed and opens when we yawn, chew or swallow.

Sometimes, the Eustachian tube may become blocked and this is known as Eustachian tube dysfunction (ETD). This results in insufficient air getting to the middle part of the ear, causing the air pressure to become reduced. This can cause a feeling of fullness in the ear and may lead to sounds being muffled.

SYMPTOMS OF ETD:

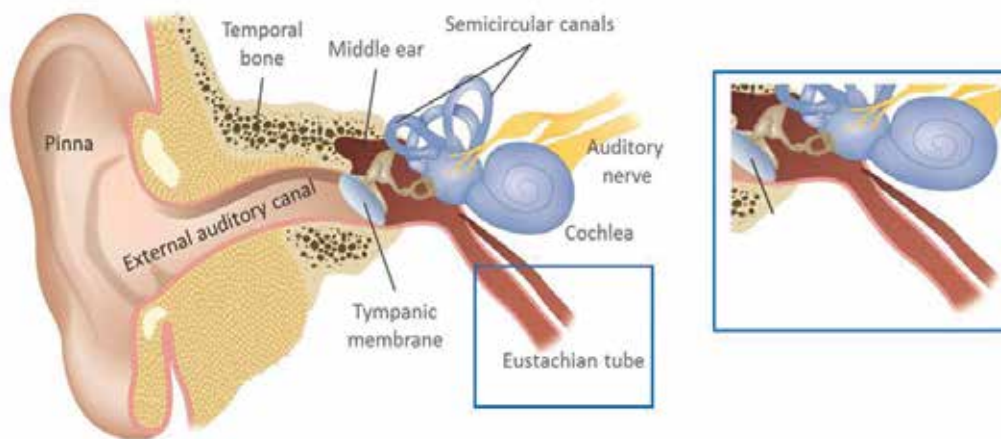
Symptoms associated with Eustachian tube dysfunction include:

- a feeling of fullness or 'blocked' ears
- crackling or clicking sounds when chewing or swallowing
- intermittent pain
- muffled sounds
- discomfort

CAUSES OF ETD:

Eustachian tube dysfunction is often caused by differences in air pressure between inside the body and the environment, arising from:

- altitude changes (air travel, driving through hilly environments, scuba diving)
- nasal congestion, sinus problems or allergies
- a common cold
- chest, ear or sinus infections
- failure of the Eustachian tube to open when yawning/swallowing



WHO IS MORE SUSCEPTIBLE TO ETD?

Children are more susceptible to Eustachian tube dysfunction because the Eustachian tube is more horizontal which can lead to accumulation of fluid in the middle part of the ear, known as otitis media.

People who frequently fly or deep sea dive may experience greater problems with Eustachian tube function, as they are exposed to sudden changes in atmospheric pressure. In rare cases, damage to the tissue linings can occur after rapidly ascending or descending and cause perforations of the eardrum and very rarely, cause permanent hearing loss. This is known as barotrauma.

TREATMENT FOR ETD

In mild cases of ETD often no treatment is required and the symptoms usually resolve within a few weeks.

The Valsalva technique, which involves pinching your nose, holding your mouth closed and puffing up your cheeks, is used to equalise air pressure between the middle ear and the outside environment.

ETD whilst flying can often be relieved by chewing gum, yawning, swallowing or completing the Valsalva technique. "EarPlanes", disposable ear plugs, which regulate the air pressure in the outer ear, can be used in children from 1 year old through to adults, to help ease pain associated with flying.

Nasal decongestants can assist with clearing the nasal passages and the Eustachian tube, particularly

in patients with sinus problems. Antihistamines are also sometimes recommended if Eustachian tube dysfunction is due to allergies.

At the University of Melbourne Audiology Clinic our audiologists are able to check your middle ear function as part of an audiological assessment.

For medical advice on the management of Eustachian tube dysfunction, check with your doctor. In some cases referral to an Ear, Nose and Throat Specialist may be recommended.

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