

Patient Instructions – ETD



Eustachian Tube Dysfunction (ETD)

The eustachian tube runs from the back of your nose uphill to your middle ear and is supposed to be air filled. Changes in elevation, or atmospheric pressure, such as from ascent or descent in an airplane, or with scuba diving, can cause discomfort to the ears. Most often, ears will “pop” or become plugged. Allergies, ear infections, or colds can also cause the eustachian tube to close, also resulting in popping or plugging which can result in hearing difficulties.

Flying Solutions for Patients with Eustachian Tube Dysfunction

Air travel is sometimes associated with rapid changes in air pressure. To maintain comfort and avoid problems, the eustachian tube must function properly as a pressure equalizing valve. That is, it must open frequently and widely enough to equalize the changes in pressure. When the aircraft ascends, atmospheric pressure decreases, resulting in a relative increase in middle ear pressure. When the aircraft descends, just the opposite occurs and atmospheric pressure increases, resulting in a relative decrease in middle ear pressure. Usually, the descent is associated with more discomfort.

To avoid middle ear problems associated with flying you should not fly if you have an acute upper respiratory problem such as a common cold, allergy attack or sinus infection. Should you have such a problem and must fly, the following combination of medication used with the appropriate earplugs will help you during your upcoming flight to reduce pain and pressure in the ears. All of the following products could be purchased at your local pharmacy and are available without a prescription. Generic or store brand products are acceptable.

- Afrin. Active ingredient: Oxymetazoline. Use 2 sprays in each nostril 30 minutes before take-off and landing.
- Sudafed. Active ingredient: Pseudoephedrine. Take as directed 60 minutes before take-off. Depending on how long your flight is, you may need a second dose to control symptoms for the duration of the flight.
- EarPlanes (ear plugs). Insert in both ears upon take-off and leave in for the duration of the flight.
- Equalizing Eustachian Tube Techniques
 - Swallow or make yawning gestures.
 - Chew gum or Sucker
 - **Valsalva Techniques**
 - Do not perform if you have a sinus infection, cold, or allergy attack
 - Pinch your nostrils shut with your thumb and finger, take a mouthful of air, using your cheek and throat muscles gently force the air into the back of your nose as if you were trying to blow your thumb and fingers off your nostrils. If you hear a pop in your ears, you have succeeded. You may have to repeat this several times during the flight.
- Children with ETD
 - Babies or children cannot intentionally equalize their eustachian tubes, but it helps if they are sucking on a bottle, pacifier, or a sucker.