

## Understanding Eustachian Tube Dysfunction

### What Are the Eustachian Tubes?

The Eustachian (yoo-stay-shuhn) tubes connect the back of the nose to the middle ear, which is the air-filled space behind the eardrum. The Eustachian tubes open when people yawn or swallow, and they help to equalize pressure behind the ear drum and prevent accumulation of fluid.

### What Is Eustachian Tube Dysfunction?

Eustachian tube dysfunction (ETD) occurs when the Eustachian tube is blocked or does not open correctly. ETD is more common in young children than in adults, as children have underdeveloped Eustachian tubes that can easily become blocked. Chronic ETD can result in fluid buildup in the middle ear, causing temporary hearing loss and increased risk of infection. This is called *otitis media with effusion*.

ETD may cause a feeling of ear fullness or blockage, ear pain, ringing in the ears, or popping sounds. Patients may not hear well out of the affected ear. Parents may notice that their children do not hear as well or have ear discomfort.

### How Does This Happen?

Common causes of ETD are allergies or infections that affect the nose, such as a cold. In these instances, the Eustachian tubes may become blocked due to swelling or due to buildup of mucus. Other causes of ETD include enlargement of nasal tissue known as adenoids and exposure to pollution or smoke.

### What Should You Do If You Think You Have ETD?

If you think you have ETD you should see your regular doctor for a visit. Your doctor may provide treatment, recommend additional evaluation like a hearing test, or refer you to an ear, nose, and throat doctor.

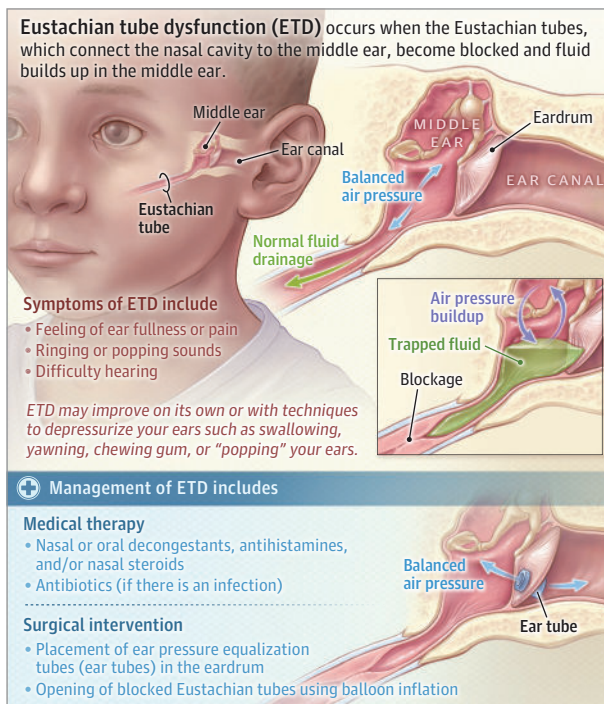
### Who Needs Treatment?

Not everyone with ETD will require treatment. It is common for symptoms to improve on their own. You may also try exercises to help open the tubes, like swallowing, yawning, or chewing gum. You can try to “pop” your ears by taking a deep breath, pinching your nose, closing your mouth, and gently blowing out.

Medical treatment for ETD focuses on decreasing nasal congestion and inflammation. This includes nasal or oral decongestants, antihistamines, or nasal steroids. Antibiotics may be needed if the symptoms are caused by an infection. Pain medication, such as acetaminophen, can help reduce ear pain.

### Who Needs Surgical Treatment?

Chronic ETD or otitis media with effusion may require surgical treatment. This includes either placement of pressure equalization (PE)



tubes or Eustachian tube balloon dilation. To place PE tubes, the surgeon will make a small incision in the ear drum, remove any fluid, and place a tube through the eardrum to allow air to enter the middle ear. PE tubes are very common in children. In balloon Eustachian tube dilation, a small balloon is placed through the nose into the Eustachian tube. The balloon is inflated for a couple of minutes, then deflated and removed. Both procedures can improve hearing and discomfort. These procedures are typically performed under anesthesia so that the patient will not feel pain.

### Can ETD Be Prevented?

It is not possible to completely prevent ETD, but there are ways to help reduce secondary symptoms like ear infections or hearing loss. These include practicing good hygiene by avoiding touching the nose and mouth, controlling allergies, and avoiding smoke exposure.

#### FOR MORE INFORMATION

American Academy of Family Physicians

<https://familydoctor.org/condition/eustachian-tube-dysfunction/>

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