

# Eustachian tube dysfunction – the cause of chronic blocked ear

**Finally an explanation of why your ear is blocked with a feeling of fullness in your head and frequent clicking.** If you have been suffering with this condition for some time and have been unable to find a medical solution, this article may explain the cause of your problem and how you can solve it.

## **What is the cause of chronic blocked ear?**

While blocked ear can result from wax accumulation in the outer ear canal, chronic blocked ear is more often the result of Eustachian tube dysfunction.

The Eustachian tube is a small passage that forms a connection between the middle ear chamber and the pharynx, where the back of the nose connects to the upper throat. The Eustachian tube's purpose is to equalize the air pressure in the middle ear with the outside air pressure.

Eustachian tube dysfunction occurs when the tube fails to open during swallowing or yawning. This results in a difference between the air pressure inside and outside the middle ear. The result is pressure on the eardrum, as it is either sucked in or pushed out, causing discomfort in the ear, hearing problems and often resulting in fluid accumulation behind the eardrum.

## **Why Equalisation is important**

If the environmental pressure changes, and you are unable to equalise your middle ear pressure, the ear may feel blocked because the eardrum cannot vibrate normally. This generally results in hearing problems and discomfort in the ear. It will also create a vacuum in the middle ear which will draw fluid from the surrounding tissue, causing it to accumulate behind the ear drum. Such fluid collection further hinders the ability of the eardrum to vibrate normally. This can lead to middle ear infections or glue ear.

Blocked ear often occurs when you experience altitude changes in flying, going up and down steep hills, riding in elevators or scuba diving. For most people this blocked feeling can be relieved by swallowing yawning or chewing. A slightly more forceful way of achieving this is to hold your nose and blow gently, trying to force the air through your blocked nose.

If your ears do not clear normally in this way throughout the day because the Eustachian tube is blocked or swollen, air and fluids can become trapped in the ear. This will cause symptoms to continue beyond just a few hours and can sometimes lead to ear damage.

Short-term Eustachian tube dysfunction may be caused by allergies or mucous congestion, during a cold or sinus infection.

Some people may develop Eustachian tube dysfunction because they have a particularly narrow Eustachian tube. In some cases the Eustachian tube can be mechanically blocked by tumours, or by adenoid tissue in young children. If these issues have been eliminated and you still suffer from chronic blocked ear, the problem may simply be inadequate muscle function.

## **Eustachian tube muscles**

There are four tiny muscles which assist in the opening of the Eustachian tube. One of these, the hammer muscle, is one of the two main muscles in the middle ear. Poor performance of Eustachian tube muscles can be the result of muscular tension or poor muscular tone in the head, neck and jaw areas. It can also be linked to ear damage from infections, viruses, head injury or noise exposure. Hence it is common for people with blocked ear problems to also suffer from tinnitus or hearing loss.

What is behind Eustachian tube dysfunction?

## **Risk Factors**

The following factors may increase your chances of developing Eustachian tube dysfunction and chronic blocked ear:

- Activities involving large, rapid altitude changes, such as flying, scuba diving or bungee jumping
- Respiratory allergies, colds, or other upper respiratory infections
- Allergic dietary reactions (i.e. to wheat or dairy products).
- Ear or sinus infections
- Congenitally narrow Eustachian tubes
- Tumors in the nasopharynx
- Muscular tension or poor muscle tone in the head neck and jaw
- Ear trauma caused by excess noise exposure
- Children with large adenoids
- Children have a higher chance of developing blocked ear because their Eustachian tube is narrower than that of adults and lies at a horizontal angle, reducing its ability to drain easily

## **Symptoms**

Symptoms of poor Eustachian tube function can include:

- Sensation of blocked ear
- Feeling of fullness in the ear
- Discomfort or pain in the ear

- Muffled hearing
- Ringing in the ear (tinnitus)
- Dizziness
- Symptoms cannot be relieved by swallowing, yawning, or chewing
- Pain if the blockage results in an infection, or during altitude changes when flying or diving

### **Diagnosis**

When you go for medical diagnosis your doctor will look for signs of ear infections or physical impediments such as tumours or structural abnormalities. You may also be referred to an otolaryngologist or ENT doctor for specialist assessment.

Medical practitioners are often mystified by chronic blocked ear. Your doctor will first perform a physical examination of your ear nose and throat. You may be referred for a Tympanogram to measure pressure in the ear canal and movement of the eardrum. You may also be referred to an audiologist for an audiogram to measure your hearing acuity.

For short-term ear infections, treatment with antibiotics or nasal decongestants may be effective. However, chronic blocked ear is notoriously difficult for doctors to treat, as you may have already discovered. Most doctors are not aware of methods to restore function to the Eustachian tube muscles. The function of the Eustachian tube muscles cannot be improved through drugs or surgery, and therefore some form of physical retraining and rehabilitation is required.

### **Surgical options**

There is a common surgical procedure, most often used for children with chronic blocked ear, resulting in repeated ear infections and earaches. This procedure is the insertion of a ventilation tube, sometimes called a “grommet”, which is a small plastic tube that is placed through a perforation made in the eardrum. Rather than finding a way for the Eustachian tube to be open normally, the middle ear is surgically opened at the other side by perforating the eardrum. It may also be necessary to perform a myringotomy. This is a surgical procedure to cut open the eardrum and remove accumulated fluid, such as blood, pus, or water, from the middle ear. After this procedure a small tube (grommet) will often then be inserted to maintain drainage. This surgery is most often performed on children, but is sometimes performed on adults.

By far the most effective method of rehabilitation for chronic Eustachian tube dysfunction is to give an ongoing intensive exercise program to Eustachian tube muscles through Sound Therapy.

This method was developed by the renowned ENT Dr. Alfred Tomatis in the 1950s. Since it was made portable by Patricia Joudry in 1985, thousands of people around the world benefited from the method. As well as helping with hearing problems, tinnitus, dizziness and other ear related issues, the method has proved highly effective in many cases of blocked ear by permanently restoring normal function to the Eustachian tube muscles.

### **Choosing your course of therapy**

Before undertaking a procedure as drastic as surgery (even the insertion of a grommet means puncturing the eardrum and leaving permanent scarring) it is safer and more practical to first try to resolve the problem through muscular rehabilitation.

Eustachian tube dysfunction is often accompanied by allergic reactions and mucous build up. Therefore, testing irritants and allergens in your diet may be a useful part of your treatment program.

### **How Sound Therapy helped Katy’s blocked ear**

“My problem was that I had a blocked ear, it wasn’t blocked all the time, it would just come and go. It would just block up. And nothing that I had attempted made any difference to it whatsoever. So I started Sound Therapy and after I’d listened for about 2 to 3 months then it just slowly started to clear and by the end of the week it was totally clear— and I hadn’t experienced that before. Previously, nothing that I had tried brought me any success whatsoever.” Katy Fitzgerald- as reported in Sydney Morning Herald.

### **8 Year old gets relief from blocked ear**

“We have been doing sound therapy for nearly 4 weeks now and I have noticed a massive difference in our eldest boy’s anger issues.

The one thing he has always complained about is blocked ears. We took him to many specialists over the past 4 years, but they all said his ears were perfectly fine. Four weeks on from starting Sound Therapy it’s like our family is on holiday. He still gets angry, but within a couple of minutes can manage it, and moves on. He still gets the blocked ears, but only very occasionally, and they now unblock within a few minutes. “

Mother of two sons aged 8 and 6, (Name withheld by request)