

## Perforated Ear drum

### Insight into ear injuries

- What is a perforated eardrum?
- What causes eardrum perforation?
- How is hearing affected by a perforated eardrum?
- and more...

A hole or rupture in the eardrum, a thin membrane that separates the ear canal and the middle ear, is called a perforated eardrum. The medical term for eardrum is tympanic membrane. The middle ear is connected to the nose by the eustachian tube, which equalizes pressure in the middle ear.

A perforated eardrum is often accompanied by decreased hearing and occasional discharge. Pain is usually not persistent.

### What causes eardrum perforation?

The causes of a perforated eardrum are usually from trauma or infection. A perforated eardrum from trauma can occur:

- If the ear is struck directly
- With a skull fracture
- After a sudden explosion
- If an object (such as a bobby pin, Q-tip, or stick) is pushed too far into the ear canal
- As a result of acid or hot slag (from welding) entering the ear canal

Middle ear infections may cause pain, hearing loss, and spontaneous rupture (tear) of the eardrum, resulting in a perforation. In this circumstance, there may be infected or bloody drainage from the ear. In medical terms, this is called otitis media with perforation. Symptoms of acute otitis media include a sense of fullness in the ear, diminished hearing, pain, and fever.

On rare occasions a small hole may remain in the eardrum after a previously placed pressure-equalizing (PE) tube falls out or is removed by the physician.

Most eardrum perforations heal on their own within weeks of rupture, although some may take several months to heal. During the healing process the ear must be protected from water and trauma. Eardrum perforations that do not heal on their own may require surgery.

### How is hearing affected by a perforated eardrum?



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Usually the size of the perforation determines the level of hearing loss - a larger hole will cause greater hearing loss than a smaller hole. The location of the perforation also affects the degree of hearing loss. If severe trauma (e.g., skull fracture) dislocates the bones in the middle ear which transmit sound, or injures the inner ear structures, hearing loss may be severe.