

Ear, Nose & Throat Center of Austin

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Tympanoplasty is a microsurgical procedure that uses a patient's own tissues (autologous grafts), to reconstruct the tympanic membrane. Grafts may be taken from different areas, including (in order of most frequent use) loose connective tissue, temporalis fascia (tissue near the temples), tragal perichondrium (tissue from ear), and the periosteum (the fibrous sheath that covers bone). Veins are rarely used as they weaken over time. Alloderm grafts (from synthetic materials) may be used if patients have had multiple previous surgeries and have limited graft availability. Results are about equal as those with autologous tissue. Homografts (tissue taken from other humans) or xenografts (from animals) are sometimes available, but in general they are less successful and less frequently used.

The patient is usually placed under general anesthesia, although it may also be done under local anesthesia. The surgeon reconstructs the membrane either through the ear canal alone, or through the ear canal and through an incision behind the ear. The surgeon may use a laser to carefully remove any scarring in the middle ear. If the ossicles (small bones in the inner ear) have been damaged, the surgeon may also repair these, using either donor bones or prosthetic devices (ossiculoplasty).

Tympanoplasty is usually a highly successful procedure, with over 90% of patients recovering without any complications. In the hands of Columbia's highly trained surgeons, over 94% of patients' grafts take successfully. If subsequent operations are required, these also are highly successful. Bleeding and infection are very small risks, as are chances of incomplete healing of the eardrum. Development of [cholesteatoma](#) is another very small risk and requires special treatment if it occurs. If the ossicles have been damaged by injury or disease, hearing loss may be sustained despite surgery. Approximately 2 to 4 patients out of 1000 will experience sustained hearing loss after tympanoplasty, according to research. As with any surgery, the risks of anesthesia, such as reactions to the drugs and breathing difficulties, must be discussed with your physician.

After surgery, patients may often leave the hospital the same day. They must keep the operated ear dry while bathing for two to three weeks, as directed. Any hearing loss or tinnitus usually resolves in a few days. Occasionally patients may lose the sense of taste on the operated side of the tongue; this also resolves within weeks.