



Stapedectomy, Stapes mobilization, Middle ear exploration

What is stapes and middle ear exploration surgery?

A disease called *otosclerosis* commonly causes the third hearing bone not to move properly in response to sound. Stapedectomy removes a part or all of the third hearing bone, the stapes, and replaces it with a prosthetic hearing bone. When the stapes bone fixation is minimal or caused by a problem other than otosclerosis, stapes mobilization may be preferred. When the cause of the middle ear dysfunction is uncertain, middle ear exploration seeks to find, and when possible, to fix the problem. An inner ear fluid leak is called a perilymph fistula which can be repaired through the middle ear.

Purpose of Surgery:

Stapedectomy and stapes mobilization seek to restore hearing function by mobilizing or replacing the third hearing bone (the stapes bone). To the extent that inner ear function allows, an excellent gain of hearing is quite common. When the inner ear hearing sensory function has deteriorated, hearing improvement may not restore normal hearing. When an inner ear fluid leak is found, the goal is to seal it. An open or repeatedly open inner ear fluid leak may cause fluctuating hearing and balance problems. Ringing or other noise in the ear may improve after surgery, generally in parallel to the amount of hearing improvement that is achieved.

Alternatives to surgery:

If hearing loss is the primary concern, a hearing aid may provide sufficient amplification to improve hearing while the hearing aid is on. For perilymph fistula, failure to repair the fistula may result in spontaneous recovery or may lead to recurring problems with vertigo, imbalance, and worsening hearing.

Risk of not having surgery:

Delaying stapedectomy surgery carries no typical risk that the surgery could not be done just as successfully, later in life, so long as one's health remains good enough for surgery. Long term studies show that waiting on surgery does not make the surgery less able to be done successfully. Delaying perilymph fistula surgery may increase risk of deafness in the involved ear, but that risk is not able to be estimated.

General Considerations:

The surgery is normally performed as an outpatient, almost always under general anesthesia. Depending on health status, some laboratory testing may be necessary. Laboratory testing is usually completed within a week prior to surgery. Prior to surgery, both the surgeon and the anesthesiologist review your medical history and pertinent medical examinations. Usually, a hearing test (audiogram) is completed shortly before surgery.

Before Surgery:

Avoid aspirin, Advil, Motrin, Aleve, Celebrex, Vioxx, or similar non-steroidal anti-inflammatory medication for at least five days before surgery. Ask the doctor if any other medications will need to be changed before surgery.

After surgery, restrictions include:

Do not use **aspirin, Advil, Motrin, Aleve, Celebrex, Vioxx**, or similar non-steroidal anti-inflammatory medication for two weeks after surgery. These and other **arthritis medications may cause bleeding**.

After surgery, **the head dressing may be removed on the second post operative day**. A **cotton plug** in the ear opening and a strip of gauze will be found when the dressing is removed. Please **remove the cotton plug and the gauze strip on the second day after surgery**. Generally, a wick will be in the ear with the cotton plug and should also be removed on the second day after surgery.

Do not get water in the operated ear. Use petroleum jelly (Vaseline) coated cotton to plug the ear for bathing until the doctor tells you the ear is ready for water exposure.

No nose blowing for a minimum of two (2) weeks.

Open mouth to **sneeze** for two (2) weeks. Do not stop a sneeze by squeezing your nose.

You may **wash the incision behind the ear** with soap and water and coat it with antibiotic ointment for about 5 days.

No lifting, pushing, pulling, bending, stooping, or getting out of an easy chair/recliner for two (2) weeks after surgery (the effort to get out of the recliner may cause the inner ear to leak). **When getting out of bed**, roll so that you can use your hands to push up rather than stomach muscles to pull up when getting out of a lying-down position.

Resuming normal activities:

Some patients are **dizzy** for a while after surgery. Resume **driving** and **return to work** when dizziness and/or lightheadedness have improved sufficiently and if your job activity fits within lifting restrictions, listed below. Dizziness after surgery usually improves more rapidly the more active you are. Avoid ladders, step stools, and unprotected heights until you can move quickly in any direction without dizziness or lightheadedness. The more quickly you work back into normal routines, the more quickly you will feel better and energy will return.

Between two (2) and six (6) weeks after surgery, do not lift over **10 pounds** unless otherwise instructed. Then, you may resume normal lifting activity unless the doctor has indicated a reason to continue to avoid lifting. Gentle, normal walking is encouraged right away, as dizziness allows. Fast walking may resume at 2 weeks after surgery. Avoid jogging till 6 weeks postop. From **6 weeks to 3 months postop, do not lift over 30 pounds**. After three months, you may resume lifting and exercising according to what is safe for you. Note that scuba diving and snorkeling should only be done if you can clear the ears easily and in a jaw shifting fashion. If you have trouble clearing the ears while scuba diving or snorkeling, continuing to dive may risk permanent loss of hearing in the operated ear.

General Risks of Stapedectomy, Stapes mobilization, Middle ear exploration

Perilymph Fistula:

Some **numbness** of the back and top of the ear commonly resolves within two to six months after surgery. **Swelling** of the outer ear should be minimal. The swelling typically resolves in a few days to a week or so. Because of swelling and surgical changes, a pre-existing hearing aid may not fit for a few weeks after surgery. Wait at least two to four months after ear surgery to get a new hearing aid or **ear mold fitting**. **Infection** after surgery may occur in less than 1% of operative ears. Things that make infection more likely are getting water in the ear, nose blowing, and getting a cold or flu. If you think you have an infection, call the doctor right away. Risk of needing surgery again in the operated ear at any point in the rest of ones life after stapedectomy is quite low, perhaps about a 3% chance. Eardrum membrane perforation is a rare possible side effect of middle ear surgery and sometimes requires an operation to repair. After ear surgery, **taste** for sweet, sour, salt, and bitter flavors may be abnormal on the same side of the tongue as the surgery. The taste nerve is located in the middle ear. In the vast majority of patients, the taste complaints resolve or become tolerable. Ability to smell is not affected by ear surgery.

Mild **dizziness** is common after surgery and usually improves within a few days to a few weeks. Persistent dizziness that is bothersome is rare. **ringing** in the ear is sometimes a noticeable nuisance after surgery, but may also be improved by surgery. **Hearing improvement** usually takes 2-6 weeks and **loud noise may be annoying** during that period. Further **hearing impairment** in the operated ear may occur with a risk rate for initial stapes surgery of less than 1%. If such occurs, the ear may not benefit from a hearing aid. A rare side effect of ear surgery is deafness in the operated ear. **Weakness or paralysis** of the nerve that makes the face to smile is an extremely rare side effect of ear surgery. A delayed-onset facial paralysis can develop after leaving the hospital, generally occurring if a person has a fever blister history - **please let the doctor know if you have had fever blisters or mouth sores**. The face recovers to normal or nearly normal in almost all cases, but, in some, facial movement may be permanently impaired. In extremely rare cases, facial paralysis may require additional surgery. In the event of facial nerve weakness or paralysis, **special eye precautions** will be necessary. **Other rare problems** after ear surgery include excessive bleeding, spinal fluid leakage, meningitis, or other serious problems which are extremely unlikely.

General medical conditions that affect the heart, circulation, breathing, and urination can all be aggravated by surgery of any kind. Men sensitive to certain medications may need bladder catheterization after surgery of any kind.

Patient/Guardian Statement: The patient or patient’s guardian and/or legal representative state by signing below that doctor has discussed the surgery, alternatives, and major risks, that the above information has been communicated to the patient, guardian, and/or legal representative and that an opportunity to ask questions has been given. The consent form should not be signed until the patient, guardian, and/or legal representative have obtained a layman’s understanding of the surgery and have obtained satisfactory answers to all questions. By signing the consent form, the patient, guardian, and/or legal representative indicate a layman’s understanding of the surgery, potential alternatives to surgery, and reasons for surgery and indicate a desire to proceed. If the surgery has been explained in another language, the person who has translated must indicate by cosigning the document that all information from the doctor and from this consent form have been communicated to the patient, guardian, and/or legal representative and that all questions have been answered satisfactorily.

Patient printed name			Patient/guardian signature		Date Signed
Circle Surgery ear	R	L	Doctor: Loren J Bartels MD FACS	Date of Surgery	
Witness		Guardian printed name		Translator	Language