



# OTOSCLEROSIS



**Dr. Mohsen Rajati, MD**  
Otologist, Neurotologist

- ENT Specialist, fellowship in Otology-Neurotology
- Full Professor of Otorhinolaryngology, Mashhad University of Medical Sciences
- Chair of the department, Ghaem University Hospital
- Member of Khorasan Cochlear Implant Center
- Member of the editorial board of "Iranian Journal of Otorhinolaryngology"



## OTOSCLEROSIS

Otosclerosis happens when a tiny bone inside your ear, called the stapes, fuses with other parts of the inner ear bone and stops vibration; the result is defective hearing.

Otosclerosis is a term derived from oto, meaning "ear," and sclerosis, meaning "abnormal hardening."

The condition is caused by abnormal bone remodeling in the ear. Bone remodeling is a lifelong process in which bone renews itself by replacing old tissue with new. The middle-ear bones (also called ossicles) amplify the sound vibrations and transmit them to the cochlea, a fluid-filled structure shaped like a snail, in the inner ear.

In Otosclerosis, abnormal remodeling disrupts the ability of sound to travel through the ossicles to the inner ear.

### The treatment is:

Removing the stapes and replacing it with artificial prostheses, the result of this surgery is sought in terms of hearing. In case of correct patient selection, a success rate (hearing improvement) of more than 90 percent is expected. So, the prior management in these patients is surgery. But if the patient does not accept surgery or there is any contraindication for surgery or anesthesia, hearing aid is the second option.

Another common symptom in Otosclerosis is tinnitus, which is ringing or other noises in the ear. The tinnitus outcome after surgery is not as predictable as the result on hearing.

However, the statistics show relative improvement in more than half of the patients.

Otosclerosis surgery is considered as one of the most meticulous ear surgeries;

The whole process is done with a microscope and delicate instruments.

Like any other surgeries there might be some complications:

- Complete hearing loss on the operated ear. (In less than 1 percent)
- Vertigo is probable in some of the patients but it will disappear within 2 weeks. In some rare cases it may take longer; you need to inform your surgeon in such situations.

#### Surgery Day Recommendations:

- Patient should fast for the surgery. It is necessary to avoid taking any beverages 4 hours and milk and solid food 8 hours before the surgery.
- According to the usual time table, most surgeries start after 12 noon. So, you are allowed to have a light portioned breakfast early in the morning.
- Go to the hospital at 8 a.m.
- Bring the admission form, identification document, blood tests, scans, photos, audiology tests, etc.
- The presence of a guardian for under 18s is obligatory.
- Take a shower the night before or early in the morning of the surgery day.

### Post-Operative Care:

4-6 hours after the surgery it is forbidden to eat or drink anything. When the effect of anesthetics is totally gone (the patient is fully alert and can answer questions properly), drinking liquids is allowed.

Nausea and vomit may happen on first days but they will disappear. Vertigo is possible on first days and it may take as long as 2-3 weeks. After 1 or 2 days the patient is discharged. Ask the surgeon for the time and place of your next visit.

Taste disorders may happen on 1 side of the tongue and it may take few months to resolve.

The first visit will be 3-5 days after surgery in which the bandage is removed. After removing the bandage some secretions with blood may exit your ear which is ok, but refer to your surgeon if it continues.

There are a few stitches on your auricle which must be removed 8-10 days after the surgery.

Your second visit will be a month after the first one.

During this time no water should enter the ear canal. You must put a piece of greasy cotton at the canal entrance when showering. (Use Vaseline or tetracycline)

Please note that you must put the cotton ONLY when you are showering and at other times your ear must be open so the air flow helps the wound recovery and it prevents infection. You must continue water protection until your surgeon considers it.

At this time (1 month after surgery) the result is distinct and the surgeon can announce your hearing situation after examination and taking an audiometry test.



**Professor MOHSEN RAJATI HAGHI Biography:**

Dr. Rajati was born in Tehran, he was brought up in Mashhad and graduated from Ibn-Yamin High School; he achieved honored rank in the national entrance examination and studied General Medicine at Mashhad University of Medical Sciences.

He also completed the otolaryngology residency course for four years at Mashhad University and then postgraduate course (fellowship) in Otolaryngology (ear and skull base surgeries) at Tehran University of Medical Sciences in Amir Alam hospital. Dr. Rajati has worked as a faculty member in the department of Otorhinolaryngology, Ghaem University Hospital since 2005.

At present, he is Chair of the ENT department and head of the ward at Ghaem Hospital in Mashhad.

Dr. Rajati is one of the active surgeons of the Khorasan Razavi cochlear implant center. This center is one of the leading ones in the world with more than 2000 cochlear implant surgeries, and many people benefited from its services.

Participating and speaking in scientific congresses all over the world, publishing dozens of scientific articles in domestic and foreign specialized magazines, active participation in holding international congresses in Mashhad and the country are among the highlights of his professional career.

He operated more than 5000 ear surgeries including tumors, facial nerve problems, hearing problems, cochlear implants, etc., in public and private sectors.

**FIELD WORK:**

- All middle ear surgeries related to infectious and non-infectious diseases:  
tympanoplasty,  
ossiculoplasty,  
mastoidectomy
- Surgeries to restore hearing:  
bone and middle ear hearing aids,  
stapedotomy,  
cochlear implant
- Ear and nose cosmetic surgeries
- Operations related to the facial nerve:  
nerve decompression,  
nerve grafts,  
muscle transfer
- Inner ear and vertigo surgeries
- Skull base surgeries and tumors

### Surgery Day Recommendations:

- Patient should fast for the surgery. It is necessary to avoid using any beverages 4 hours and milk and solid food 8 hours before the surgery. According to this time table and the fact that the surgery is done after 12 noon, you are allowed to have a light portioned breakfast early in the morning.
- Go to the hospital at 8 a.m.
- Bring the admission form, identification document, blood tests, scans, photos and etc.
- The presence of a guardian for under 18s is obligatory.
- Take a shower a night before or early in the morning of the surgery day.



Dr. Mohsen Rajati, MD  
Otologist, Neurotologist

#### CONTACT INFO:

 Baran Building, Aref 5, Ahmadabad Blvd., Mashhad, Iran

 +98 915 601 1229



+98 51 38473541



DR.MOHSEN.RAJATI

 @DRRAJATIHAGHI



@DRRAJATIHAGHI



WWW.DRRAJATI.COM