

Mastoidectomy - A brief note

Mastoid is a bone in the skull, palpable behind the ear. It contains a lot of air cells. These air cells communicate with air in the middle ear. Middle ear and mastoid are aerated through the Eustachian tube when we swallow or sniff. Because of its continuity with the middle ear, mastoid air cells get infected when the middle ear is infected and at times act even as source of persistent infection.

Mastoidectomy is a surgery designed to clear infection in mastoid air cells.

This is often done along with **Tympanoplasty*** in chronic middle ear infection.

This is **done in situations** called mastoiditis where mastoid air cells are filled with pus.

Mastoidectomy is also done when it is involved by cholesteatoma. Cholesteatoma is a condition characterised by the presence of skin like tissue in the middle ear and/ or mastoid. This is a potentially dangerous condition and can be cured only by surgery.

Rarely mastoidectomy is done in tumours involving middle ear and mastoid.

Mastoidectomy is of two **types**. 1) Canal wall up mastoidectomy where partition wall between mastoid air cells and external auditory canal is retained. It is done when mastoid air cells are infected. 2) Canal wall down mastoidectomy where partition wall is removed resulting in a single cavity consisting of mastoid air cells, middle ear and external auditory canal. This procedure is employed usually in the presence of cholesteatoma and tumours.

Once patient is diagnosed with chronic middle ear infection with or without cholesteatoma he or she is advised surgery. Hearing test namely pure tone audiometry is invariably done prior to surgery. X ray mastoid or HRCT Temporal bone may be done. Haemogram and ECG are taken to assess the general condition of the patient. Details regarding existing disease and treatment as well as drug allergy if any should be shared with the doctor prior to surgery. There will be restrictions regarding in take of food and fluid before and after surgery. It should be complied with. Please read document named **instructions to patients posted for surgery** for more information.

Surgery is usually done under general anaesthesia. It is done using surgical microscope. It is done through an incision made behind the ear. It takes 2-4 hours depending on the extent and nature of disease.. Main intention of surgery is to remove all infected cells and achieve dry ear. This is obtained in ninety percent of cases.

After surgery the patient is kept in post operative ward under observation for 3 hours and then shifted to room. In cases where further monitoring is required, the patient is shifted to ICU. Oral feeds can start 5 hours after surgery.

Patient may feel pain around the ear, ear block, giddiness and mild fever. Analgesic and antibiotic are given usually. Patient is kept in the hospital for one day.

It is advised to stay at home for 1 week after surgery. There will be dressings around the ear.

One should take care to avoid water entering the ear. While sneezing, the mouth should be kept open to reduce pressure in the ear. Body bath can be taken. Head bath is deferred for 10 days.

If patient feels severe pain, swelling and discoloration around surgical site and ear discharge it should be brought to the notice of the doctor. First postoperative visit is on the 7th day. Further follow ups at regular intervals are required for a period of three months to evaluate healing. At the end of the third month, the ear is examined under microscope and audiometry is done.

Complications possible are injury to facial nerve resulting in facial weakness, damage to ossicles and inner ear causing hearing loss, tinnitus and dizziness and persistent infection leading to ear discharge. But these are rare.

*Please read document titled **Tympanoplasty - a brief note** as mastoidectomy is combined with Tympanoplasty