Cholesteatoma and Mastoid Surgery

A cholesteatoma is a growth of skin that occurs behind the eardrum, usually due to a history of repeated infections. The skin growth forms a cyst that then enlarges and can erode the surrounding structures behind the eardrum. This can result in hearing loss, dizziness, facial paralysis, or in rare cases even severe intracranial infections (meningitis, brain abscess) if not treated.

What are the symptoms of cholesteatoma?
Symptoms include chronic drainage from the affected ear. Patients may also experience a sense of fullness or pressure as well as hearing loss. Left unchecked, the growing cyst can cause dizziness and facial weakness, serious signs of cholesteatoma.

How do I know if I have cholesteatoma?
A thorough evaluation by your physician is the first step in diagnosis. Often if there is an infection, a course of antibiotics (topical ear drops, oral antibiotics, or both) is usually recommended. Your doctor will clean the ear if necessary and examine discharge under a microscope in the office. If a cholesteatoma is suspected, your doctor will generally recommend a baseline hearing test and then refer you for a detailed CT scan of the middle ear and mastoid bone. The CT scan will confirm the presence of a cholesteatoma and also aid in surgical planning if warranted.

How is Cholesteatoma treated?
The most common treatment for cholesteatoma is surgery. This procedure is called a mastoidectomy. An incision is typically made behind the ear, so your surgeon can remove the cholesteatoma, as well as any diseased tissue or bone in the surrounding area. The procedure is performed under general anesthesia, usually as an outpatient, so it does not require a hospital stay.

If the eardrum is diseased or has a hole, it can also be addressed, usually with tissue taken from behind the ear. This procedure is called a tympanoplasty.

If during surgery it is confirmed that the tiny bones behind the eardrum have also been eroded by the cholesteatoma, they may also need to be addressed. Your doctor may try to replace these bones with an artificial prosthesis to help restore your hearing, though this may need to be performed at a second surgery 6 months to a year later. If restoring your hearing in this way is not feasible, your doctor will discuss with you other options to help improve your hearing once the cholesteatoma has been successfully removed and shows no signs of recurrence.

What are some of the complications from mastoid surgery?
Common risks of surgery include the need for revision surgery, infection, bleeding, pain, and decreased hearing. Other more rare complications include injury to the facial nerve. Your doctor will typically place a special monitor with electrodes in the muscles of your face during the surgery to help ensure facial nerve damage is avoided. If you
develop facial weakness, in most cases it is just temporary and will improve usually within weeks to months. Dizziness is also not uncommon, and will usually improve with time.

**Aftercare**
Your doctor will give you instructions on how to care for your ear after surgery. Generally, there will be packing in the ear canal that your doctor will usually remove at your initial follow-up visit. Depending on the extent of disease, you may need to see your doctor periodically to inspect the mastoid cavity and perform routine cleaning and inspections to avoid the possibility of recurrence of cholesteatoma or problems with recurrent infections in the future.