

Cholesteatoma

Chronic Ear Disease and Cholesteatoma: What You Should Know

Many people suffer from chronic infections of the middle ear or otitis media. The middle ear is one of the three basic parts of the ear: The outer, middle and inner ear. The outer ear collects sound waves which travel down the ear canal to the eardrum or tympanic membrane. The eardrum separates the outer ear from the middle ear. Movements of the eardrum are sent to the inner ear via the three small bones in the middle ear, the hammer or malleus, the anvil or incus, and the stirrup or stapes. When these bones are set into vibration by the eardrum, the vibration is transmitted to the inner ear or cochlea.

Problems affecting the eardrum or the bones of the middle ear can cause hearing loss. These problems can include holes in the eardrum, fluid in the middle ear from infection, damage to the bones of the middle ear from infection, or scar tissue in the middle ear. Drainage of fluid from the ear is a serious problem, particularly if the drainage is green or yellow or has a foul odor.

There is a tube from the middle ear to the back of the nose called the eustachian tube. This tube equalizes the air pressure between the middle ear and the outside air. If the eustachian tube is not working properly, a partial vacuum can form in the middle ear. This can happen after several previous middle ear infections, or if the patient smokes or has other medical problems such as allergies. Sometimes part of the eardrum can be sucked in to form a pouch. The eardrum sheds dead cells and replaces them just like the skin on the rest of your body. These dead skin cells can get trapped in a eardrum pouch and form a cholesteatoma.

Cholesteatomas can take the form of a cyst behind the eardrum. A cholesteatoma can grow and damage structures in the middle ear or inner ear. This can result in hearing loss and dizziness. The bone behind the ear or mastoid can also be infected. The nerve that controls the muscles of the face, the facial nerve, goes through this area and can be damaged by a cholesteatoma. This can result in paralysis of the face. The green or yellow drainage we discussed earlier can be caused by a cholesteatoma. In severe cases, the cholesteatoma can actually erode the thin plate of bone between the middle ear and the brain called the tegmen. This can result in brain infections such as meningitis. Death can occur in rare untreated cases. Obviously, a cholesteatoma is a serious medical problem. How can you know whether or not you have such a problem? One symptom is ear drainage as we have already mentioned. Other symptoms include a feeling of pressure in the ear, hearing loss, pain in or behind the ear, dizziness, or muscle weakness on one side of the face.

If you have any of these problems, you should seek medical attention immediately. Your family doctor may refer you to an ear, nose, and throat surgeon or an otolaryngologist. Hearing tests and x-rays may be ordered. If a cholesteatoma is indeed diagnosed, surgery is usually recommended. The type of surgery depends on the extent of the cholesteatoma. A tympanoplasty is performed to fix a hole in the eardrum and the bones of the middle ear in the case of a small cholesteatoma involving just the middle ear and the eardrum. This operation is done through a cut made behind your ear after you are put to sleep. The hole in the eardrum is sealed with tissue taken from beneath the skin behind your ear. The diseased or damaged middle

ear bones are repaired or replaced with an artificial plastic or ceramic substitute. A tympanomastoidectomy is a more extensive operation which combines a tympanoplasty with removal of a portion of the mastoid bone behind the ear. This is done if the cholesteatoma has extended to that area. The surgeon uses a small drill to carefully remove diseased bone and uncover the cholesteatoma so that it can be removed. With large cholesteatomas, reconstruction of the middle ear may not be possible at all, or it may require a second procedure six to twelve months later. The second operation will attempt to restore hearing and, at the same time, inspect the middle ear space and mastoid for recurrent or remaining cholesteatoma.