

Discussion Concerning PE Tubes

Children are often prone to infections of the middle ear. The theory is that the eustachian tube in the children does not function properly and makes children susceptible to ear infections. The eustachian tube leads from the ear to the nose and aerates/drains the ear. As children grow and their skeleton matures, eustachian tube function improves and their susceptibility to ear infections decreases. In some children, these infections can become a significant problem due to:

- high frequency of the middle ear infections
- persistent fluid behind the eardrum
- complication of the middle ear infections

Middle ear infections ("otitis media") are treated medically with a good degree of success. Medical therapy can include multiple courses of antibiotics, decongestants and even long term (6-10 weeks) of low dose ("prophylactic") antibiotics. Some patients, however, do not respond to medical therapy. The rationale behind treating the "medical failures" aggressively is to prevent the complications of middle ear infections: hearing loss, mastoid infections, and scarring of the eardrum. Hearing loss associated with middle ear infections is usually a temporary problem that is caused by fluid behind the eardrum, but if the fluid is persistent or the infections frequent, the hearing loss may interfere with the speech or learning processes.

An option for children with recurrent ear infections is surgery: Myringotomy and PE tubes placement. In this procedure, a small slit is made in the eardrum and a small tube is placed through the eardrum. This tube, shaped like a sewing thread spool, replaces the poorly functioning Eustachian tube.

The advantages of using PE tubes are that they will:

- reduce the number of ear infections
- remove fluid behind the eardrum and often reverse the hearing loss
- possibly help prevent long term complications of ear infections

The disadvantages of PE tubes are that they:

- last from 3 -12 months (average 8 months) before they grow out of the eardrum
- ear infections can still occur with the tubes in place but the incidence is usually much less

There is usually no pain associated with the PE tubes. Postoperatively, care must be taken to prevent getting soapy water in the ears when bathing (use ear plug or cotton coated with ointment to block the ears). Ear plugs are not needed with routine water sports unless diving/surfing activities are expected.