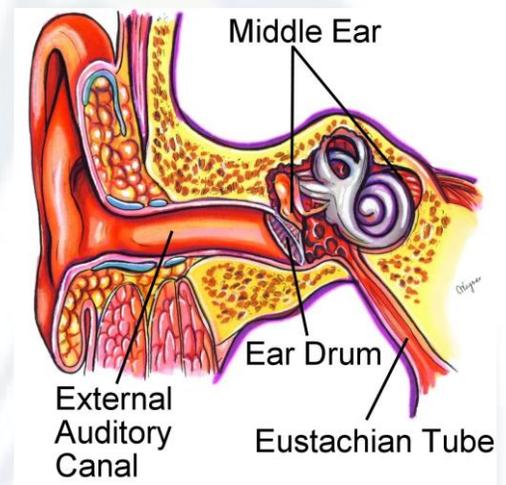


Ear Tubes

Recurrent ear infections are very common; 90% of children will have at least 1 ear infection. In some cases, fluid in the middle ear persists after the infection has cleared up. The presence of fluid behind the eardrum may interfere with hearing. If the fluid persists for long periods of time, it may result in delayed language development and other problems. Also, if the fluid keeps getting infected, the results are recurrent or repeated ear infections. This is usually due to Eustachian Tube Dysfunction, or failure of the body's natural drainage pathway.

CAUSES OF EUSTACHIAN TUBE DYSFUNCTION

- Immaturity- this tube often is not well developed in young children
- Obstruction- usually due to large adenoids in the back of the nose
- Anatomic- smaller horizontal tubes in young children or more severe issues like cleft palate, craniofacial abnormalities, Down Syndrome
- Hereditary- family history of ear disease
- Inflammation- usually temporary following an infection



WHEN AND WHY ARE TUBES RECOMMENDED?

Tubes are recommended when the ear infections are recurrent or chronic, requiring repeated rounds of antibiotics. Tubes are also recommended if the fluid does not drain from behind the eardrum leading to hearing loss. Once the microscopic (tiny) tube is inserted into the eardrum, fluid in the middle ear is able to drain through to the outside. As the fluid drains, the eardrum is once again able to vibrate normally. Hearing is improved immediately. The tube also helps prevent further infections. Since fluid drains to the outside, bacteria (germs) cannot easily multiply in the middle ear and cause infection. Ear infections after tubes is uncommon, but if they do occur, the only symptom is usually drainage from the ear which can be treated with ear drops only.

WHAT ARE EAR TUBES AND HOW ARE THEY USED?

Ear tubes are little plastic tubes that are inserted into the eardrum. This is done during a minor surgical procedure performed by your Physician. This simple process is the most common type of surgery performed on children in North America. Children are usually given a mild, general inhaled anesthetic for the surgery, without an IV or breathing tube. The procedure takes approximately 10 minutes, and children are allowed to return home the same day of the surgery. Many children are disoriented and upset after the anesthetic, but once this wears off, there is little to no pain, and normal activity can be resumed once the anesthesia has worn off.

CARING FOR EAR TUBES

Drainage immediately after surgery is not uncommon, and the color may be clear, yellow, green, or red. This is treated with the ear drops prescribed after surgery. If drainage occurs after this period, immediately restart using the drops prescribed after surgery in the affected ear. If the drainage persists, call the office and schedule an appointment. A follow-up visit is scheduled 3 weeks after the procedure. A hearing test is scheduled at this visit to ensure that hearing has been restored to normal. Following this visit, your child will be seen every 4-6 months to ensure that the ears and tubes are doing well until the tubes have fallen out, and the eardrum is returned to normal. Because the ear tube opens a tiny hole between the outer and the middle ear, water can accidentally travel into the middle ear from the outside and introduce infection. This is usually only an issue when the ear is submerged in water containing bacteria, such as bath water, lakes, and poorly chlorinated pools. Ear plugs are recommended when the head is submerged, but generally are not necessary for showering or bathing if the ears are not under water. Avoid diving deeply under water.

EXPECTED COURSE AND COMPLICATIONS

Tubes usually stay in the eardrum for approximately one year. They fall out naturally into the outer ear canal as the eardrum seals itself shut. Complications are very uncommon. The most serious is a complication related to the anesthetic, but serious complications from anesthesia are 1 in 20,000. Complications to the ear are also very uncommon. Drainage is the most common, and is discussed above. Rare complications include ear tubes falling out early or becoming non-functional, the tube not falling out, or the tube falling out but the eardrum not healing itself. All of these conditions can be remedied with simple procedures. Scarring on the eardrum is uncommon and does not interfere with hearing. A second set of tubes is necessary less than 20% of the time.