Ear infections are one of the most common reasons for a visit to the physician. The typical ear infection seen in most children and some adults is a middle ear infection. This is referred to as acute otitis media. Acute otitis media is characterized by ear pain, fever, muffled hearing, and sometimes ear drainage. The drainage from the ear can be pus or sometimes bloody discharge. Often, acute otitis media occurs along with or just after an upper respiratory infection (common cold).

Although most ear infections are routine, some can become severe and lead to complications. For this reason, ear infections should be evaluated either by your physician or by an otolaryngologist (ENT specialist). Oral antibiotics have been shown to decrease the duration of symptoms, and are the primary treatment for acute otitis media. After the ear infection is treated, fluid will sometimes remain in the middle ear space for weeks to months. This is no longer an infection, but it can continue to cause muffled hearing. This is a concern for young children who are developing speech.

When acute otitis media become a recurrent problem, or fluid remains in the middle ear for several months, pressure equalization (PE tubes) may be recommended. Placement of PE tubes is a procedure where your surgeon, with the use of a microscope for magnification, will make a small incision through the tympanic membrane (eardrum), and then insert a very small tube into the eardrum (typically 0.8-1.14 millimeter inner diameter). The PE tube is made of inert materials - titanium, silicone or Teflon plastic. This procedure takes about 15 minutes and is done on children under a brief general anesthesia. Adults may have PE tubes placed in the office under local anesthesia. Patients are discharged home the same day, and there is little to no pain after they are inserted.

PE Tubes are placed in the eardrums for several reasons, and one or more of these reasons may apply to you or your child: recurrent ear infections, chronic middle ear fluid, conductive hearing loss from chronic eustachian tube dysfunction, incipient cholesteatoma, and possible other reasons.

While PE tubes are in place, they act as an artificial eustachian tube (the structure that connect the throat to the middle ear). It is dysfunction of the eustachian tube that typically causes the ear problems. PE tubes usually last in the eardrum for 6-12 months and will fall out spontaneously. This will be noted by your doctor during a routine office visit.

The indications and risks of surgery, as well as expected outcomes, must be understood prior to proceeding with surgery. In addition, you must understand the alternatives to the surgery. The alternative to PE tubes is simply to not have the surgery performed, and continue with medical management of your child’s (or your) problem. This would leave the ear/s in their current condition.
Eardrum perforation (hole) – There is a 3-5% chance that as the tube slowly comes out of the eardrum, the hole that the tube maintained wouldn’t heal on its own. If this occurs, we typically recommend surgical repair of the hole at a later date, the timing of which depends on the age of the patient and other factors.

Infections – Typically tubes dramatically decrease the infection frequency, thereby allowing for fewer antibiotics. However, it is not uncommon for a patient to develop one or more infections even with the tubes. If the infections are frequent with tubes, this would suggest the eustachian tubes haven’t yet matured enough. Infections with tubes will almost always be accompanied by ear discharge. This will require antibiotic ear drops and possibly an oral antibiotic. Please notify us if this occurs.

Persistent eustachian tube problems – Up to 5-10% of patients undergoing a first set of tubes, will need a second or more sets of tubes. The decision for each set of tubes is dependent on the circumstances at that time. If a second set of tubes (or more) is needed, other medical conditions are also typically investigated. Retained tube – On occasion a tube will remain in the eardrum more than a year. That is OK. If a tube lasts 3 years however, we will probably suggest surgical removal. This is because the perforation rate increases after 3 years.

Plugged tube – On occasion one or both tubes clog up with mucus, pus or blood. If this occurs, the tube becomes essentially non-functional. Numerous types of drops will be tried to un-clog the tube, but if this is unsuccessful, we might recommend a return trip to the operating room for tube replacement. Fortunately, most often the drop regimen clears the tubes. As with any type of surgery, the risks of anesthesia such as drug reaction, breathing difficulties and even death are possible. Please discuss these risks with your anesthesiologist. Fortunately, with such a brief procedure, anesthetic problems are exceedingly rare.

POST-OPERATIVE INSTRUCTIONS/CARE

1. Ears may drain following the placement of PE tubes. A watery drainage or bloody discharge may continue for several days. Please use the prescribed drops for the ears, and if heavy drainage or bleeding continues, please notify us.

2. Baths and washing hair. If the patient has PE tubes, parents should try to prevent water from flowing directly into the ears. The patient should try to avoid submerging the ears underwater without proper ear protection. The use of ear plugs is controversial. We continue to recommend using plugs. These can be custom made in our office (which we generally recommend), or purchased as a commercial product at your pharmacy or other stores. If only several drops of water reach the ear canal, there is usually no problem. If a large amount of water gets into the ears, the child should be observed for one to two days. If ear discharge occurs, we should be notified.

3. Swimming. If the patient has PE tubes, swimming in a chlorinated pool usually does not cause a problem if the custom ear plugs are used. The use of a swim cap or Ear-Band-It® is added protection but not mandatory.

4. Post-operative visit. If an appointment for the postoperative visit has not been scheduled, please call the office and we will see the child approximately 1-2 weeks after surgery.

5. Depending on the age of your child and the facility where the surgery is performed, there may be pre-operative tours of the facility available. This might be educational and soothing for your child when the day of surgery arrives. Please notify us if this may be of interest to you.
6. Your child (or you) may typically return to activity and diet as tolerated even on the day of surgery.

**GENERAL INFORMATION**

A. Tubes usually cause no pain post-operatively.
B. Excessive physical activity will not loosen or disturb the tube.
C. The ears do not need to be covered in wind or cold weather.
D. You may still clean the external portion of the ear canal with cotton tip applicators.

At Suburban Ear, Nose and Throat Associates, Ltd., we go to great lengths to try to help you understand your plan of care. If at any time during your care you have questions or concerns, please call us at 847-259-2530.

I/we have been given an opportunity to ask questions about my condition, alternative forms of treatment, risks of non-treatment, the procedures to be used and the risks and hazards involved. I/we have sufficient information to give this informed consent. I/we understand every effort will be made to provide a positive outcome, but there are no guarantees.

Patient name PRINTED: _____________________________________________

Parent/Guardian/POA or Patient SIGNATURE: __________________________

Parent/Guardian/POA PRINTED name (if applies): __________________________

Parent/Guardian/POA relationship to patient (if applies): __________________________

Date: ___________________________ Time: ___________________________

Witness: ___________________________ Date: ___________________________