



## **Bilateral Myringotomy with Tubes** **“Tubes”**

### **INDICATIONS:**

Myringotomy tubes are placed in children and adults for a variety of reasons. In children, most commonly the reason is secondary to recurrent infections or chronic fluid in the ears. In general tubes are placed in both ears regardless of whether the disease is unilateral or bilateral. Often times however an adult can “get by” with a tube placed just in the more seriously effected ear. This procedure is one of the most common surgical procedures performed on children along with hernia repair and circumcision. Because you are required to remain still during the procedure a general/mask anesthetic is required for children. Adults however do not usually require a trip to the OR for this procedure which can usually be completed with a local or topical anesthetic.

### **RATIONALE:**

Myringotomy tubes are actually ventilator tubes not specifically drainage tubes. They serve the purpose of aerating the middle ear space (the space behind the eardrum). This space is usually ventilated by the Eustachian tube, which may not work a variety of reasons. The Eustachian tube can be dysfunctional because of:

- Immaturity- seen in young children
- Inflammation- usually temporarily after a bacterial or viral infection
- Obstruction- large adenoid tissue or tumor
- Hereditary- a family history of ear disease
- Anatomic- cleft palate, bifid uvula, facial deformity i.e. Downs syndrome

The myringotomy tubes serve to bypass the Eustachian tube by ventilating the middle ear space through the ear canal, which is usually closed off by an intact tympanic membrane (eardrum).

By keeping the middle ear ventilated the patient should have fewer problems related to disease secondary to poor regulation of pressure in the middle ear. The tube also allows for any fluid or pus to drain out of the ear instead of causing pressure behind an otherwise intact eardrum. This should then decrease the total number of infections, decrease symptoms of pain, and improve hearing and speech acquisition. The tubes also allow for easier access to the middle ear. The middle ear can now be cleaned by suction in the office and allow for antibiotic drops to be applied directly to the infected which should speed the course of recovery.

### **COMPLICATIONS:**

Complications to this procedure are uncommon but well documented. The most serious is a complication from the anesthetic. This is exceptionally uncommon and any prior personal or family difficulties should be brought to the surgeon and anesthesiologist’s attention. Cancellation of your surgery due to an active infection depends on several variables and will be at the discretion of your

surgeon and anesthesiologist during their preoperative evaluation in the morning of surgery. Other less serious issues include drainage (otorrhea) which may come through the tube and require cleaning in the office as well as the use of drops. Tubes sometimes become temporarily blocked and require drops to open them up. In general a tube will fall out in approximately a years time on its' own. Occasionally if a tube has not fallen out after two years your doctor will consider removing it surgically. Infrequently a tube that has been present for an extended period of time will leave a perforation in the eardrum that will not heal. Although unusual this problem can be repaired by a second procedure to repair the eardrum.

### **POSTOPERATIVE CARE:**

Simple instructions to follow after the surgical procedure include using good common sense about keep the ear dry. We believe that problems arise from water contamination are usually related to an excessive amount of water and the type of water that gets into the ear. Do no pour water directly into the ear, do not submerge your child's head completely under water, and do not dive deeply under water. Lake water, water parks and poorly chlorinated pools appear to be the most problematic.

#### **Several products can help you keep the ear dry if problems occur;**

- **A cotton ball with Vaseline on the outer portion of the ear**
- **Ear putty i.e. Mack's Wax**
- **Fitted ear plugs (Doc's Pro-plugs)**
- **Customized ear molds**

Price varies depending on which you choose. Wax costs less than \$5, where a customized ear mold can cost up to \$30 an ear. Not everyone will require keeping their ears completely dry and not every child will cooperate with allowing you to place things in their ears. Consider this before putting out a large sum of money.

If your ear begins to drain postoperatively this is perfectly reasonable. Use the drops given or prescribed to you by your physician whenever you see drainage from the ear. A phone call during regular working hours to keep us informed would also be appropriate. The drainage will look similar to the character and consistency of a runny nose. If the drops begin to burn during the course of treatment or begin to irritate deep within the ear do not be alarmed. This usually means that the infection has resolved. Eardrops will frequently irritate a healthy ear but do not seem to hurt when the middle ear mucosa is inflamed i.e. during an infection. If the ear drops burn it suggest the infected has resolved quicker than was expected and stopping treatment is appropriate.

There are no restrictions from a dietary standpoint postoperatively once any postoperative nausea subsides. There are also no restrictions to activity or strenuous play, the tubes are not easily dislodged and are very stable in the eardrum. Your child may return to school or daycare the day after surgery. Your doctor would like you three weeks after surgery to check the tubes and approximately every six months afterwards until the tubes fall out.