



## EAR TUBES

Pressure equalization tubes are placed for several reasons. In children they are most often placed for chronic or recurrent ear infections, as well as persistent fluid behind the ear drums. In adults they may be used to treat infection but are usually used for chronic Eustachian tube problems. The tubes bypass the blocked Eustachian tubes and allow air to move in and out of the middle ear space to help keep it healthy, prevent fluid from accumulating, allow infection to drain out and provide direct access to the middle ear for using antibiotic drops.

Tubes for children are placed under general anesthesia in the operating room. A mask is used to give gas anesthetic. There is no I.V. and no breathing tube in the throat. Using an operating microscope, a small incision is made in the eardrum, fluid is suctioned out and a small plastic or metal tube, roughly the size of a grain of rice, is inserted. Ear tubes in adults are usually placed in the clinic after numbing the ear drum.

**BEFORE SURGERY:** Clear Fluids may be given up to 4 hours before surgery. Milk, formula, and solids may be given up to 8 hours before surgery. If your child develops a bad cough within several days before surgery, we typically will need to postpone the surgery for several weeks. The hospital or surgical center will call you the day before surgery to inform you of the time and location.

### **AFTER SURGERY:**

Patients may be irritable for several hours after surgery. Some may remain sleepy for much of the rest of the day. Nausea and vomiting are rarely seen and usually improve by evening without intervention.

### **DROPS:**

You will be sent home with drops or a prescription for ear drops. These drops contain an antibiotic but also serve to flush the tubes out and prevent debris from accumulating and clogging the tube. The drops should be used for three days following tube placement (three drops three times a day for three days). After placing the drops use the "tragal pump" maneuver to push the liquid through the tubes. This is done by pressing the tragus (small triangular flap in front of the ear canal) gently backwards three or four times. If you try it on yourself you will feel the pressure it creates inside the ear.

### **EAR PAIN:**

Children may sometimes complain of earaches after surgery. This is usually due to manipulation of the eardrum. It should resolve within a day or so and usually requires nothing more than Tylenol. Occasionally the eardrops given to you by your doctor may be irritating or too cold. Try warming the drops by placing the

bottle in your pocket for 10 minutes or by gently rolling the bottle between your hands before using them. **DO NOT PUT ANYTHING IN THE EAR UNLESS SPECIFICALLY TOLD TO DO SO BY OUR OFFICE.**

**DRAINAGE:**

It is very common for fluid or even blood to drain from the ear for several days after the placement of tubes. It is important for you to continue to use the ear drops given to you by your surgeon, 3 drops three times a day for three days after tube placement.

**FEVER:**

It is common for patients to have an elevated temperature for a day or two post operatively. Temperatures of more than 101.5 F should be reported to our office immediately. All fevers may be treated with an appropriate dose of Tylenol or ibuprofen.

**WATER ACTIVITY:**

Please try to keep the patient's ears dry as much as possible. Normal face washing is permitted but caution with hair washing is advised. Swimming, bathing, and showering without earplugs are discouraged. Silicone ear putty is very useful for keeping water out of the ears and is available in drug/grocery stores. If water enters the ear canal, it might carry bacteria through the tube and cause an infected, draining ear. Soapy bath water is particularly prone to do this. Swimming under water can also force water through the tube. If water does get into the patient's ears, use a hair dryer on the low setting to dry the ear. Should discolored or bad smelling drainage, blood or pus be noted, re-start the antibiotic drops you were given after surgery. If the drainage doesn't stop within several days, please call the office as you may need some oral antibiotics.

**FLYING:**

Flying is permitted without restriction. The tubes will equalize pressure so there is no risk of pain or ruptured eardrum. In fact, the patient's ears will probably clear better than anyone else's!

**CONTACT THE DOCTOR:**

Call our office for any temperature greater than 101.5 F or any temperature accompanied by cough or difficulty breathing. Also call us for any discolored or foul smelling drainage that doesn't clear after several days of antibiotic drops.

**RISKS**

- 5-10% of children may develop an infected or draining ear.
- 2% of children will be left with a hole in the ear drum requiring repair. Ear tubes fall out into the ear canal around one year after surgery. If tubes stay in the ear drum for two years or more, the chance of a hole being left in the ear drum goes up to 20%, so tubes are usually removed in the operating room after two years if they persist this long. A paper patch is

usually placed over the ear drum hole at the same time to help the hole heal. Sometimes several paper patches are required, but these can often be done in the clinic. Rarely a graft of tissue needs to be taken from around the child's ear to rebuild the ear drum.

- Some ear tubes may come out too soon, requiring replacement.
- After the tube comes out, the ear infections may return, requiring further procedures. Most children outgrow this problem at age 2-3.

**FOLLOW UP:**

We would like to see most patient's about 3-4 weeks after surgery. Please call the office at 801-328-2522 to schedule your post op appointment as doctor's schedules do fill up quickly.

**PLEASE NOTE:** We are conducting a study on a new ear drop for draining ears after ear tubes are placed. If your child develops drainage, they may be eligible for the study, as long as no antibiotic drops have been put into the ears recently. All visits, hearing tests, cultures, and medication are free, and you will be given a stipend of up to \$400. Thank you for considering this instead of just putting the post operative ear drops into your child's ear.