



# Ear, Nose & Throat Consultants of North Mississippi

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## PRESSURE EQUALIZING TUBES BASIC INFORMATION AND POSTOPERATIVE CARE

### 1. Why does your child need pressure equalizing tubes?

Pressure equalizing tubes are tiny, spool-shaped devices that allow air in the fluid out of the space behind the eardrum (middle ear). Normally air gets into the middle ear and fluid drains out of the middle ear by way of the Eustachian tube. The Eustachian tube is a passage leading from the middle ear space to the back of the nose. The pressure changes that one normally feels when changing altitudes during air or mountain travel is due to the normal opening and closing of this passage. If the Eustachian tube is blocked for any reason, the tissue lining the middle ear space begins to produce fluid. This fluid can interfere with hearing and cause ear infection.

Blockage of the Eustachian tube is very common in infants and small children due to immaturity in the position, size, and function of the tube. Because of the unique positioning of a child's Eustachian tube and the immaturity of the muscles that control the tube, children are more susceptible than adults to middle ear infections. Infected mucous from the nose and throat, allergies, and an enlarged adenoid are all possible contributing factors to ear infections in children.

Even after a child takes an antibiotic and the infection is gone, fluid may remain trapped in the middle ear space if the Eustachian tube remains blocked. Fluid in the middle ear space significantly interferes with normal hearing. Such a hearing loss, if persistent, may cause delayed or abnormal speech in the infant or young child because he cannot hear some sounds while other sounds are distorted. Longstanding fluid may even cause permanent damage to the hearing bones in the middle ear, resulting in permanent hearing loss. Therefore, to protect your child's hearing and to prevent further discomfort due to repeat ear infections, placement of pressure equalizing tubes has been recommended.

### 2. How are tubes put in the ears?

Your child will receive a light mask inhalation anesthetic. Once the child is asleep, the doctor will visualize the eardrum under the microscope, making a tiny opening, suction away any fluid, and place the tube in the eardrum. Your child will not have any pain during the surgery. Both the anesthetic and the procedure are quite brief.

### 3. How long will the tubes stay in place?

The tubes will remain in place for an average of 10-12 months. However, this period varies from patient to patient. The tubes usually come out on their own and are so small that you may not realize that they have come out. It is very important that you return to see the doctor periodically so that he may check your child's ears regarding tube position and function. You should make your first follow-up appointment for three to four weeks after the surgery and afterwards as directed.

### 4. Post-operative discomfort

Following pressure equalizing tube placement, most children have significant relief of their ear discomfort. We, therefore, do not routinely prescribe narcotic pain medication after pressure equalizing tube placement. If you think that your child is experiencing post-operative ear pain, Tylenol (acetaminophen) or ibuprofen should be adequate for pain control.

### 5. Ear drainage

Approximately 25% of children with pressure equalizing tubes will experience ear drainage at some point while their tubes are in place. Often children will have ear drainage during the two to three days following tube placement. Any time the ears are draining, it is advisable to use antibiotic ear drops. Early use of antibiotic ear drops often leads to resolution of the ear drainage. For this reason, we routinely provide patients with pressure equalizing tubes with standing prescriptions for ear drops. Should the ears drain beyond five to seven days after initiation of ear drops, you should notify the office for further instructions. Infrequently, ears with pressure equalizing tubes may produce bleeding during an infection. Bleeding from an ear with a pressure equalizing tube always signifies infection and should be managed with ear drops such as any other form of infectious drainage. On rare occasions, ear drainage can actually plug the pressure equalizing tube and lead to early extrusion ("falling out") of the tubes. For that reason, it is important that you begin ear drops as soon as you see ear drainage.