

MEDICAL: EAR NOSE AND THROAT
PROBLEMS

At the LPA National Convention in Baltimore, I attended two extremely informative seminars entitled "Hearing and Related Problems of LP's" and "Medical Problems of Infants and Small Children (with dwarfism)". It was here that I learned that most short statured children are prone to middle ear infections, fluid in the ears, and hearing loss. This often leads to related speech problems such as delayed speech development. Additionally, short statured children frequently have enlarged adenoids and/or tonsils which need to be removed.

Last year I began to understand more about this first-hand, when my daughter Tricia had surgery to remove her adenoids and put tubes in her ears. We had been very fortunate up until that time with very few ear infections for either of our short statured daughters. I thought we were off the hook and would not be requiring any surgeries.

Then I began to notice that Tricia might not be hearing well. For some time, I had thought that some of her behavior was due to being adopted from Korea and having to learn a new language and adjust to a new environment. But then I began to realize that her lack of attention, her "tuning us out", speech pronunciation difficulties and singing the wrong words to songs at school, was not related to this, and might be due to hearing loss.

A quick trip to an ear, nose and throat specialist and an audiologist confirmed that Tricia had fluid in her ears and was hearing as if she was wearing ear plugs all of the time. She would need surgery to relieve this and while we were at it, she would have her very enlarged adenoids removed to improve breathing. The surgery was quick and simple, and we were back home from the hospital in less than three hours.

Now Tricia hears well, her behavior has improved, her attention span is much longer, she is improving daily with her speech, and she is learning the correct words to her favorite songs. With the adenoids out, she no longer snores at night (unless she has a cold) and she can now breath through her nose while sleeping.

To help you understand some of the problems listed above (which are common to dwarf children), and their treatments, I interviewed Alan M. Gall, M.D., who is an Otolaryngologist in St. Petersburg, FL (a doctor who treats medical and surgical conditions of the ear, nose and throat and related areas). Dr. Gall has a number of patients with dwarfism including my two daughters. I've asked him some of the most commonly asked questions I have received from you. We appreciate the time Dr. Gall has taken from his busy schedule to assist us with this article.

AN INTERVIEW WITH DR. ALAN GALL

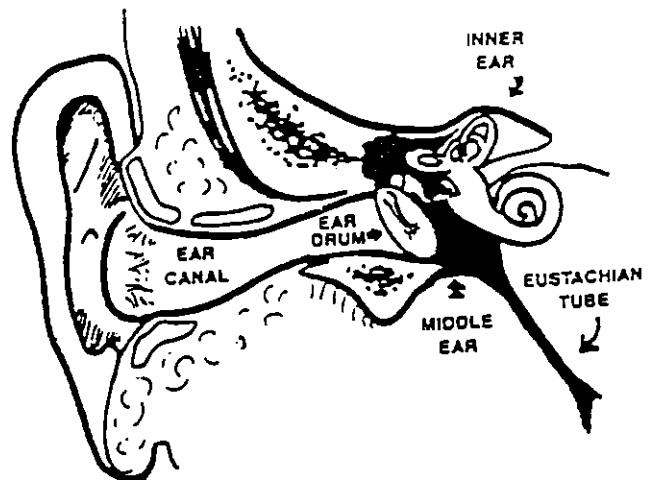
1. My child has had numerous middle ear infections. What causes this and what can be done to alleviate the problem?

These infections are the result of eustachian tube obstructions. The eustachian tube is a narrow channel connecting the middle ear with the area in back of the nose and above the soft palate. This tube, when functioning properly, opens in response to swallowing and yawning. In so doing, it allows air into the middle ear to replace air that has been absorbed by the middle ear lining. This also

equalizes pressure changes occurring on altitude changes, such as on airplanes and scuba diving. Obstruction or malfunction of the eustachian tube results in a negative middle ear pressure, with retraction (sucking in) of the eardrum membrane. In the adult, this usually may result in a mild hearing impairment and head noise. Children may not be able to communicate or understand these symptoms.

If the obstruction is prolonged, fluid may be drawn from the lining of the middle ear creating a condition called serous otitis media (fluid in the middle ear). This occurs frequently in children in connection with an upper respiratory infection, allergies or enlarged adenoids, and accounts for the hearing impairment associated with this condition. In the presence of bacteria, this fluid may become infected leading to a middle ear infection (abscessed middle ear).

If medicine is repeatedly unsuccessful in relieving serous otitis media, a tiny hole is made in the eardrum (myringotomy) and the fluid is removed by suction to allow the eardrum to vibrate normally, which improves the hearing. A tiny tube is placed in the hole to prevent the incision from healing and to insure middle ear ventilation. The ventilation tube temporarily takes the place of the eustachian tube in equalizing middle ear pressure. This is a safe and simple operation.



The plastic ventilating tube usually remains in place for three to twelve months, during which time the eustachian tube blockage hopefully should subside. When the ventilating tube is in place, the only restriction to normal activities is that no water must be allowed to enter the ear canal. When the tube dislodges, the eardrum heals within a few days. More often than not, there is no

further middle ear ventilation problem. Should serous otitis media recur, reinsertion of a tube may be necessary.

2. My child has tubes in his ears, but loves to swim. How can I keep water out of his ear canals while bathing and swimming?

I recommend the use of cotton or lamb's wool, mixed with Vaseline, to plug the outer portion of the ear, to prevent water from entering. This is generally sufficient for washing, but for swimming, a bathing cap is also necessary. For those patients who cannot tolerate the use of cotton or lamb's wool, I have found an ear plug which seems to be extremely effective in preventing water from entering the ear canal. The Macks or Flents ear plugs can be purchased inexpensively at any local drug store. One last alternative is custom-made swim molds. An audiologist can make a mold of your child's ear canal. Then plugs can be made from these molds which are custom fitted for each ear. Because your child's ear is growing, these will need to be replaced every 6-8 months.

(EDITOR'S NOTE: We had these made for Tricia who likes to swim year-round, underwater like a fish. They work great! Her ear canals are always dry. They cost \$45.00 and are well worth the price. The cost of a doctor visit and antibiotics for even one ear infection caused by water seeping in would be higher than this.)

3. How can I tell if my child has a hearing loss?

The following is a simple test designed for parents who may suspect a problem with their child's hearing:

- a. Does your child frequently request the television or radio be made louder than others in the family?
- b. Does your child frequently ask that things be repeated?
- c. Does your child often answer a question with an unrelated answer?
- d. Does your child seem inattentive at home or school?
- e. Does your child seem withdrawn?
- f. Is your child's speech poorer than you would expect from a child of his or her age?
- g. Does your child respond inconsistently to sound? (Sometimes hears sound and sometimes doesn't?)
- h. Does your child have more than four ear infections per year?
- i. Does your child like to watch your face when you talk?

If your answer to these questions is "yes" your child should be examined. The earlier the problem is discovered, the earlier the child can be helped.

4. My child has a hearing loss due to fluid in his ears. Is this loss permanent?

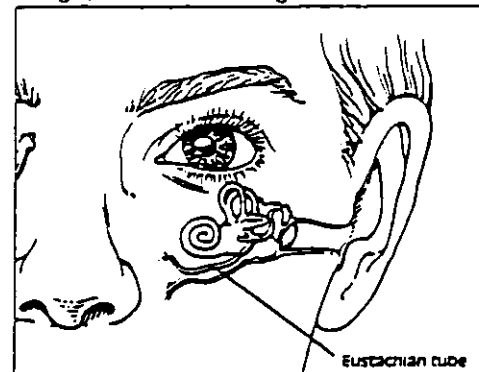
No, the loss is normally temporary and hearing returns to normal after the fluid has been drained and the ventilating tubes have been placed. A hearing test three months after the surgery will confirm this.

5. How can I tell if my child has fluid in his ears?

A simple test by an audiologist or otolaryngologist can determine if fluid is present.

6. Air travel has been extremely painful for my child who complains throughout the flight of ear pain. What causes this and what can be done to alleviate the pain?

Air travel is sometimes associated with rapid changes in air pressure. To avoid pain and discomfort, the Eustachian tube must function properly, that is, open frequently and widely enough to equalize the changes in pressure. This is especially true when the plane is coming down for a landing, going from low atmospheric pressure down closer to the ground where the pressure is higher. This causes a vacuum to form in the middle ear even faster than normal. Pressurized aircraft minimizes air pressure changes, but some changes in pressure are unavoidable. Pressure changes may also occur when riding elevators of tall buildings, or swimming to the bottom of a pool.



Here are some tips for equalizing ear pressures while flying:

1. Chew gum or let mints melt in your mouth which causes you to swallow more often. Swallowing activates the muscle that opens the eustachian tube.
2. Yawning is an even stronger activator of this muscle. Be sure not to sleep during descent, because you may not be swallowing often enough to keep up with the pressure changes.

3. If yawning and swallowing are not effective try this: Pinch your nostrils shut, take a mouthful of air, and then using your cheek and throat muscles, force the air into the back of your nose as if you were trying to blow your thumb and fingers off your nostrils. A loud pop in your ears will let you know you've succeeded, even though you may have to repeat this several times on the flight.

4. For babies, who cannot intentionally pop their ears, make sure they are sucking on a bottle or pacifier or nursing. Feed the baby and do not allow him to sleep during the descent.

5. Many experienced adult air travelers use a decongestant pill or nasal spray an hour or so before descent. This shrinks the membranes and makes the ears pop more easily. Travelers with allergy problems should take their antihistamine tablets at the beginning of the flight for the same reason.

2. Facial structure abnormalities such as overbite, underbite, high palate or cleft palate. ♥

ADDITIONAL QUESTIONS

At the LPA "Hearing" seminar in Baltimore, the otolaryngologist and audiologist who conducted the seminar both specialize in treating Little People. They were asked a very interesting question which I have listed below with their response.

1. Why is it that dwarf children are more prone than average sized children to ear infections, fluid in the middle ear, hearing loss and speech difficulties?

Short statured children generally have smaller and narrower eustachian tubes than average sized children, which allows them to close up more easily, thus trapping fluid in the middle ear. Additionally, the eustachian tube seems to lie in a more horizontal position rather than tilting downward, which makes drainage of fluid more difficult, and blockage occurs more readily. This results in hearing loss, middle ear infections, and speech problems due to hearing loss.

On the question of speech, I would like to refer to the recent article published in "LPA Today" which announced the results of a recent study of the speech and language characteristics of short statured individuals. The study was conducted by LPA member Cathy Reisfelt and her colleague, Ann Peterson, both speech pathologists in Redding, CA. According to Ms. Reisfelt, the major risk factors for speech or language problems in short-statured individuals appear to be:

1. A history of repeated ear infections and associated hearing loss.