EarPopper™ Restores Hearing, Resolves Middle Ear Fluid

Middle ear fluid is one of the most common reasons U.S. children visit the doctor, second only to the common cold, resulting in more than 30 million doctor visits each year and adding $4 billion in medical costs to the health care system. Although increasing concerns about the risks of resistance to antibiotics recently led doctors to recommend "watchful waiting" as the first line of treatment,* more than 10 million antibiotic prescriptions are written annually to treat middle ear fluid or Otitis Media with Effusion (OME). Persistent OME is often treated with surgical insertion of ear ventilation tubes. More than 700,000 children undergo this procedure each year. In many cases both antibiotics and surgery have proven problematic and often unsuccessful.

A new device, known as the EarPopper™ may eliminate the need for antibiotic treatment or placement of surgical tubes as treatments for otitis media. According to Shlomo Silman, professor of Hearing Sciences and Audiology at Brooklyn College and co-inventor of the EarPopper,™ patients now have available by prescription, a simple, non-invasive device that offers a safe and clinically-proven treatment for middle ear fluid. The hand-held, battery-operated EarPopper™ delivers a constant, controlled stream of air pressure and flow into the nasal cavity, diverting air up the Eustachian tube when the patient swallows. This action clears and ventilates the middle ear and restores hearing immediately. The device, which can be used at home, will help families avoid recurring visits to the doctor for treatment.

In a four-year study sponsored by the National Institutes of Health (NIH) and directed by otologist Daniel Arick and audiologist Shlomo Silman, 74% of children diagnosed with hearing loss from persistent OME were restored to normal hearing after seven weeks of treatment with the EarPopper™ compared to only 24 percent of the control group. After extending the treatment for four weeks in patients who did not recover within the first seven weeks, the total recovery for the study group was 85%. The results were published in two parts in the *Ear, Nose and Throat Journal* in September and October 2005. In addition to OME, the EarPopper™ treats Eustachian Tube Dysfunction, Aerotitis and Barotitis. Eustachian tube dysfunction can cause development of negative pressure in the middle ear due to a lack of ventilation and lead to an uncomfortable, "blocked" feeling in one or both ears. Aerotitis/Barotitis is a result of negative pressure in the ear caused by rapid ascent or descent (as in an airplane or during scuba diving).

If used early enough, the EarPopper could avoid antibiotic or surgical treatments in many patients suffering from these ear-related issues. In recent years, concerns have increased that frequent use of antibiotics for common ear conditions could raise the possibility that children will harbor drug-resistant bacteria during subsequent, unrelated illnesses. At the same time, many doctors and parents want to avoid the risks of surgery. Each year more than 700,000 children undergo surgery to insert tubes in their ears at an estimated cost of $2,000 per procedure. Complications reduce the effectiveness of ear tubes as they commonly fall out within four to seven months. After the tubes fall out, 40% of patients experience a recurrence of OME, and more than half of them must undergo repeat surgery to replace the tubes. The EarPopper™ is manufactured and marketed by Micromedics, Inc. of St. Paul, MN.

Drew Trampe Photographics

Guidelines On The Audiological Management of Adult Hearing Loss is Currently Under Review

The Academy's newest Guidelines on the Audiological Management of Adult Hearing Loss has been posted in the Academy Documents area of www.audiology.org and is ready for review and comment.

Please take time to read the statement and e-mail your comments to Craig Newman at newmanc@ccf.org or mail them to the national office: American Academy of Audiology, Attn: Sydney Davis, 11730 Plaza America Drive, #300, Reston, VA 20190.

If you'd like to have this document mailed to you, please call Sydney Davis at the national office at 1-800-222-2336, ext. 1033 or e-mail her at sdavis@audiology.org. All comments and suggestions should be received by January 31, 2006.