The Ear Drum

Virginia Lions Hearing Foundation & Research Center, Inc.
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Message from the President

We Lions donate our time and resources to our Lions Clubs and to people throughout our state and beyond. Every Lion exemplifies our motto "We Serve" in all we do as Lions.

Virginia's Lions must continue to be involved with VLHF at the University of Virginia in Charlottesville by providing funding for research. The research, conducted by well-qualified, dedicated personnel, is important to all with hearing impairments and related issues. Each time I visit the facilities at the VLHF I become more impressed with what is available to help the hearing impaired. These services will continue and increase with your support.

Please contact your district Hearing Chairperson for a program at your club membership meeting to learn more about these important services. Public Relations is an important part being a Lion, and we certainly cannot act upon something or be involved if we have no knowledge about it.

I am happy to announce that the Lions of Farmville, with the help of faculty and students at Longwood College, have developed a one-hour curriculum for teaching fourth-grade students about noise and hearing loss. They are making this model curriculum available to the Lions of Virginia through the hearing foundation. VLHF will also work to have the State of Virginia include this program in the Standards of Learning. I congratulate both the Farmville Lions Club and the Longwood College faculty and students for their strong efforts to create this course.

I ask all Virginia Lions to contribute to the hearing foundation this year to support research to restore or improve hearing in people of all ages. Deafness is a bleak prison of silence for those who cannot hear.

Yours in Lionism,

Doug

Lion Douglas Cross, PDG
President, VLHF

Executive Director's Message

This issue of *The Ear Drum* reprints an article from *Vim and Vigor*, a University of Virginia Health System magazine, which describes the efforts of Bradley Kesser, MD, Associate Professor of Otolaryngology – Head and Neck Surgery at the University of Virginia, to bring hearing to a young boy, born without a developed ear structure. In addition to his treatment of patients, Dr. Kesser also conducts research into regeneration of damaged or destroyed human hair cells.

Dr. Kesser is a conscientious and involved hearing foundation board member. He has spoken to numerous Lions Clubs about hearing impairment and research efforts to restore or improve our hearing.

Yours in Lionistic Service,

Don

Lion Don Colley, PCC
Executive Director, VLHF

The Gift of Sound

By Kelly Casey
Adapted from *Vim & Vigor* magazine with permission of the author

When Nicholas Papaneri was born, he was perfect in every way – except for one thing: His ears had stopped developing at three months in the womb. Born with bilateral microtia and atresia – rare disorders that left him with severe hearing loss – he had tiny skin tags where his outer ears should have been (microtia), no ear canals and underdeveloped middle ears (atresai).

As soon as Denise Papaneri got home with her newborn, she and her husband Mario Sr. began a search to find the best doctors to build ears for their youngest son.

The search would take the Papaneris from their Cherry Hill, N.J., home to Texas, Florida, California and, finally, to Virginia. At the University of Virginia Health System, Bradley Kesser, M.D., would complete the journey and give Nicholas the ability to hear on his own.

Last January, Kesser performed a delicate four-hour surgery inside Nicholas' left ear. A few months later, he performed the same surgery in the right ear.

"Everything went great," Denise says. "My son went from being deaf without his hearing aid to having 100 percent hearing in both ears." For Nicholas, who by then had gone through eight surgeries, "it was really an emotional thing for him," his mom shares. "He's really, really happy about it."

Kesser, a member of the hearing foundation's board of directors, has performed nearly 200 atresia surgeries like the one Nicholas had. Few surgeons in the country do as many as he does. Kesser carefully selects his patients – ranging from 5 to 58 years old - to make sure they are good surgical candidates. Following the operation, 80 to 90 percent of his patients have normal to near-normal hearing restored. "This surgery is perhaps the most gratifying part of my job," Kesser says.

Because few surgeons have attained his track record, he gets two or three CT scans sent to him each week for his review; they come from families everywhere - all hoping to hear that their children are good candidates for surgery.

Kesser's mentor, Robert Jahrsdoerfer, M.D., is a retired UVA professor and surgeon who 30 years ago pioneered a more effective approach to the atresia operation. Kesser trained under Jahrsdoerfer, and then had further training in California at the House Ear Institute, considered to be a premier training program for ear surgery. Kesser was in private practice, when he got a call from the soon-to-retire Jahrsdoerfer, asking him to come back to UVA to take over his atresia practice. "I've been extremely privileged and fortunate to be able to carry on his work," Kesser says. "It really is an honor."

Jahrsdoerfer adds: "Brad has fulfilled all of my expectations and more. He's doing a wonderful job. He's already an all-star in the specialty." Denise Papaneri agrees. She found Kesser through California surgeon Burt Brent, M.D., who performed the six surgeries (over 18 months) that it took to build Nicholas' outer ears using the boy's own rib cartilage.

At age 7, Nicholas continued his journey to UVA – a six-hour drive from home – for his final two surgeries. "The goal of surgery," Kesser explains, "is to establish the natural, sound-conducting pathway of the ear canal, eardrum and three middle-ear bones." The operation involves removing bone to open the ear canal; finding and freeing the middle-ear bones so they can vibrate; building an eardrum; lining the new canal with a skin graft; and connecting the canal to the outer ear.

"Not everyone gets a home run like Nicholas, but almost everyone gets improvement in their hearing," Kesser says.

Nicholas will likely be hitting another type of home run; he no longer needs what's called a Baha system – a special type of bone-conducting hearing aid that put sound right into the inner ear. Although the device allowed Nicholas to hear, it could never get wet and required him to wear a headband that got in the way of baseball (it wouldn't fit under his batting helmet).

For his mom, all the time away from home and all the surgeries were worth it in the end – but it was never easy: "Although you know deep down that you've made the best decision for your child, you have the best docs caring for your son, and you know the surgeries will change his forever for the better," she says, "nothing prepares you to watch your soon be wheeled away in a huge hospital bed. All eight times, the urge to run after him, climb into that bed and hold

him forever was overwhelming."

Nicholas Papaneri was born with severe hearing loss in both ears from what's known as bilateral (both sides) atresia. Most times, this birth defect only affects one ear (called unilateral atresai).

Children who have hearing loss in one ear have difficulty locating sound in space and hearing amid back-ground noise. So Kesser and his collaborator, Lincoln Gray of James Madison University, have designed a research study to figure out if these children can hear better in a noisy classroom and locate sound in space after they have surgery to gain hearing in the abnormal ear. Early results show that one month after surgery, these children can hear better amid noise but still have trouble locating sound in space. Kesser will continue to follow about 20 children over the next couple of years to see if, over time, they learn to locate sound in space.

"Another important question we hope to answer," Kesser says, "is whether we need to be recommending for children with unilateral atresia that they wear a cone-conducting hearing aid from age 3 months until they are old enough for ear surgery by 5 or 6. We want to know if this could help improve their school performance."

Facts About Deafness and Hearing Disorders

The following information extracted from fact sheets from the National Institute on Deafness and Other Communication Disorders (NIDCD) illustrates the enormity of the twin problems of deafness and hearing impairments.

Nearly 30 million Americans have a hearing impairment. The prevalence of hearing loss is greater in men than in women.

Ten million Americans have suffered irreversible noise-induced hearing loss, and 30 million of us are exposed to noise levels (over 85 dBs) every day.

Approximately 4,000 new cases of sudden deafness occur each year in our country. In nine out of 10 cases of sudden deafness, one ear is affected. Only 10-15% of sudden-deafness victims know what caused the hearing loss.

At least 12 million Americans suffer from tinnitus. Nearly 12% of men between the ages of 65 and 74 are affected by it. About 1 million people experience it so severely that it interferes with their daily activities. Tinnitus is ringing, buzzing, or other noise in the ear, not caused by an external stimulus. Tinnitus is identified more frequently in white individuals and is twice as prevalent in the South as in the Northeast.

Of every 1,000 children born in the United States each year, two or three are born deaf or have hearing impairments. Nine out of 10 children born deaf have parents who can hear.

The incidence of hearing loss increases with ages. About 17 children per 1,000 are affected. For adults over 65 years of age, 314 in 1,000 have hearing loss. Nearly 50% of people 75 and older have hearing loss.

Approximately 625,000 people in this country have been diagnosed with Ménière's disease. Another 45,500 are newly diagnosed each year. Ménière's disease is an inner-ear problem which affects hearing and balance. The major symptoms are sudden loss of hearing, tinnitus, vertigo, and increased pressure in the ears.

Only one of five Americans who need hearing aids actually uses one.

Future Board of Directors Meetings

The VLHF board of directors meeting will hold its next meeting on Saturday, January 14, 2012, in Riggs Auditorium, beginning at 10:00 a.m. Riggs Auditorium is located in the West Complex of the University of Virginia Health System.

The Lions of Virginia Foundation will also meet in Riggs Auditorium at 1:00 p.m. on that day.

In the event of inclement weather on January 14, the hearing foundation board of directors meeting will be postponed until January 21, 2012.

The spring board meeting of the hearing foundation will be Saturday, April 14, 2012, at 11:00 a.m., also in Riggs Auditorium. The hearing foundation's annual meeting will be July 21, 2012.

Lions who are interested in learning more about the hearing foundation or who want to work in the area of deafness and hearing impairment are invited to attend these meetings of the VLHF Board of Directors.

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